Choice and compromise: Decision-making by play park providers and its impact on play value in local play parks

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Abstract

Play parks are key spaces within children's geographies; play a valued childhood activity which is facilitated and controlled by adults. The significance of outdoor play indicates a requirement for high-quality provision, delivering play value, challenge and risk. This PhD investigation aims to understand the influences on decision-making by those involved in creating play parks and how this influenced provision.
Adopting a mixed method approach this investigation commenced with an initial investigation comprising of 20 site surveys in Lincolnshire. This informed the main investigation that evaluated eight case study sites in England through semi-structured interviews with providers and site evaluations. To support data collection the Play Park Evaluation Tool (PPET) was developed ensuring consistent data collection. To illustrate the findings an infographic was created to enable visual representation of the play value data appraising this through three key aspects of provision: accessibility, usability and play value.

The literature review highlighted the disparity of knowledge and understanding of key aspects of play park provision, and this was reflected in the results of this investigation. Providers lack sufficient knowledge or information to support the universal provision of high-quality play parks. Their limited understanding of key concepts an identified barrier to the provision of inclusive play parks. Also identified is a disconnect between the provision of these child-focussed facilities and their end users. Play parks often created without the active involvement of key user groups, through adult-facilitated and focused consultations. Findings indicate play value and inclusive play are considered as discrete characteristics.

Outcomes of this investigation include the PPET and infographic offering those creating play parks the tools to evaluate provision and to illustrate this in an accessible manner. Additionally, the synthesis of data on consultation methods into a table offering a proposed timescale supported by suggested consultation methods promotes the active involvement of end users.

Moving forward the challenge is to embed inclusive provision within the concept of play value promoting the universal establishment of accessible, inclusive play parks offering high play value.

Chapter 1 Introduction

1.1 Background to the investigation

Play parks are a recognisable sight within the built environment of the developed world, a familiar place for most, and a key neighbourhood location for children. It may be that this familiarity masks the complexity and value of play parks leading to complacency in their creation and design. As an outdoor location, specifically designed for children 'to play and be physically active in' (Reimers & Knapp, 2017), visits to local play parks are commonly part of a child's day-to-day leisure activity, and, in adulthood, accepted as an obvious place to include in children's play itineraries. Adults make choices about play locations based on criteria which are important to them, such as convenience, familiarity, cleanliness, and the apparent enjoyment by their child(ren).

What is a play park?

This is not as simple a question as it seems; is a play park a clearly defined area enclosed by fencing? If so, what about items of equipment placed within larger green areas? Is a play park the same as a playground or playing field, and what about a recreation field? Having moved from the south of England (Kent) to the north (Cumbria) with stops on the way in East Anglia and the West Midlands; and with close family in Wales and Scotland, the researcher is aware of the regional differences in lexicons. For this investigation the term 'play park' was adopted, but where an alternative term is used by a participant or in a reference this is used.

Regional differences in the terms used for play parks are not the only difference found. Each has its own character, this arising from the selection of equipment within it, and the environment surrounding it. Play equipment typically installed in play parks is found in many different environments. In cities and urban areas they are set within areas of housing, city centre parks, public areas and schools, as well as within leisure and retail provision. In more rural settings this equipment is found in play parks, schools, country parks, pub and hotel gardens. There is a wide variety of equipment styles from 'traditional' to 'modern', and construction materials include metal, wood, rubber or

plastic. The commissioning process usually considers how equipment will 'fit' within its setting with wooden frames often considered more suited to a rural setting.

Traditional play park equipment types are considered as swings, slides, roundabouts and see-saws, however the variety available from manufacturers has increased with modular units frequently found. Trends in equipment provision are seen just as with any sector. For example, net or nest swings were rarely found when this researchers' children were young but now are considered a standard item. Similarly, over the period since commencing the research for her MSc Dissertation (Parker, 2010), this researcher has noticed zip wires have become a 'must have' where space is available. Trends can provide new and exciting ways to play, but can, as advised by Woolley (2007), lead to homogenous provision; a 'KFC' approach. This acronym arising from the provision of similar items of equipment (Kit), the use of fencing (F) to surround areas designated for children's play and use of safety flooring across the whole play park (Carpet). Solomon (2005, p1) describing American play park provision at that time as 'a disaster… variations of a model that has few local or regional distinctions'. The focus on equipment detracts from the other key aspects of a play park. Landscaping can provide opportunities for active and imaginative play and seating and planting a restful environment. The ambience of the environment adding to or detracting from the play park's appeal.

Children take opportunities to play irrespective of location. Historically the provision of fixed items of play equipment has evolved. European and North American provision in the late 19th Century consisted of items now considered as 'traditional' provision including swings, slides and seesaws. Hendricks (2001) advises prior to this such equipment was considered only for adult use and located in the formal gardens of the wealthy. Influential to the developments in play park provision during the twentieth century include in the USA the establishment of the Playground Association of America founded in 1906 (Frost, 2010) and designs by Noguchi (Solomon, 2005). In Europe Aldo van Eyck, a Dutch architect developed play spaces after the second world war and Sorenson junk playgrounds in Denmark (Frost, 2010). This concept introduced to the UK by Lady Allen of Hurtwood who set up these in bombed out areas of London (Frost, 2010). Lady Allen of Hurtwood, a key figure in the development of play provision in the

UK wrote widely on subjects related to play, children, adventure playgrounds and education (University of Warwick, n.d.) Aside from fixed items of equipment there have been moves to expand the play opportunities offered by play park environments. This includes play park designs by Aldo van Eyck in Amsterdam, the Adventure Playground Movement and the introduction of abstract play structures (Solomon, 2005), and more recently a focus on natural play environments (Hendricks 2001, Frost, 2010). Historical influences are found in much of the current provision; equipment mirroring early installations. These items offering the same play experiences, albeit in a modern and regulated provision; Hendricks (2001, p 24) commenting on this and reflecting 'Time truly stands still when we play!'.

For communities the play park can become the centre of children and families' social experiences, or where children go to be away from adult oversight. The equipment, facilities, design and environment all play a part in how this space is used and valued by those living in the vicinity. As a community amenity the play park has the potential to foster community spirit not just through use but through community engagement with the process of provision and development. Key to this is consultation and participation of residents of all ages and abilities, but most especially children. The concepts of consultation and participation and their links with decision-making explored within the literature review and participant interviews and key aspects and findings discussed within this thesis.

I return to the question at the start of this section: 'What is a play park?'. It is in part the provision of fixed play equipment, but more than this, it is the space in which the equipment is installed, the seating and landscaping, and its potential to provide a community resource.

Why play outdoors matters

The concern over children's sedentary lifestyles has highlighted the need to promote time outdoors, and especially physical or active play in outdoor settings. For many children play has become an activity which is located indoors, for example in soft play areas, linked to organised activities in school, or after school activities and sport. If play is defined as a freely chosen activity, the motivation for which is simply enjoyment,

then aligning organised activities with play is a misnomer as these are organised and facilitated by adults. These activities are enjoyable and child-focused but lack the spontaneity and freedom of play

Play indoors can be freely chosen and without motivation other than enjoyment, but there are benefits linked to outdoor play which cannot be derived from active indoor play. These include the development of muscle strength and stamina as well as balance skills. However, there are less obvious benefits through exposure to sunlight, and on eyesight. The health and developmental benefits which can be gained are explored in the literature review chapter; these encompassing additional aspects such as social skills and the development of risk management strategies building confidence to attempt challenging activities.

Influences on the way children play

Children's play patterns have over the last thirty years changed, responding to new home-based play opportunities and altered parental attitudes to activities outside of the home. Children's play choices still include traditional activities. However, the increased range of television channels and the numerous ways of accessing these combined with the development of interactive engagement has altered behaviours and increased the time spent viewing programmes. This sits alongside the introduction of digital gaming and social media. The sophistication of devices and systems creating not only the challenges found within games, but also the ability for social interaction and building of online friendships and communities. The change to indoor home-based play is not solely linked to these new technologies. An increase in organised adult-led activities reflects the reduction seen in children's independent mobility identified over the past few decades (Nansen et al. 2015). This has been attributed in part to changes in parental attitude. These may relate to concerns over perceived risks including increased traffic flow, stranger danger and bullying (Cozma et al., 2015; Egli et al.2018). Within this timescale these, and other changes, including increases in child poverty and obesity, have resulted in concern over children's reduced activity levels and the impact of this on health and well-being.

These influences on the way children play reflect a period during which, for many children, the focus of play has changed. Play has moved from outdoor unsupervised free play, to structured indoor activities or digital gaming. This transfer to indoor environments has not reduced the concerns of parents as risks related to bullying remain. Often these have been relocated from the physical world to a 24-hour digital environment; one where it can be argued many children lack the social skills to manage negative comments or recognise predatory behaviour.

Opportunities for inclusion

Unconnected, but of equal importance, is a growing awareness of the need to reduce social isolation and promote inclusion for those with disabilities. In the UK the introduction of the Equality Act (2010) confirmed the rights for all to access facilities, including leisure services. This legislation stipulating service providers cannot discriminate (directly, indirectly, or through an individual's association with a disabled person), even if the service provided does not incur a charge. Additionally, this legislation continues the requirement, established under the Disability Discrimination Act (DDA) (1995), for service providers to make reasonable adjustments to remove barriers preventing access by those with a disability. This duty extends to those with a responsibility for play park provision in any setting. The promotion of social inclusion, and recognition that some minority groups are isolated and unable to easily access opportunities, has led to some changes within the built environment. These barriers are defined by the World Health Organisation (2007) in the International Classification of Function, Disability and Health: Children and Youth Version (ICF-CY) as

> *'factors in a person's environment that, through their absence or presence, limit functioning and create disability. These include aspects such as a physical environment that is inaccessible, lack of relevant assistive technology, and negative attitudes of people towards disability, as well as services, systems and policies'*
>
> (WHO 2007, p230).

In response, service providers have addressed some access issues, ramps, grab rails and lifts have become commonplace. However, addressing physical barriers does not resolve ingrained attitudinal issues which lead to discrimination and social isolation,

including that experienced by disabled children and their families (Woolley, Armitage, Bishop, Curtis and Ginsborg, 2006).

It is not the intention of this investigation to establish if there is a link between three key aspects of play park provision accessibility, inclusion and play value. These are used however are a lens through which provision can be viewed and evaluated offering opportunities to compare and contrast approaches to the creation of local play parks.

Influences on play provision

Play is a political subject and one which can create strong feelings. Locally the decision to close a play park or to remove items of equipment can result in campaigns reported in local and national press (Brown 2017; Athley 2017; Sharples, 2017). A Freedom of Information request made by the Association of Play Industries to local councils revealed that between 2014 and 2016 214 play parks closed. In 2017 80 were closed and further closures are planned. (Adams, 2017). Equally, national level decisions are made influencing local provision and often received positively, but also have a potential to create tension. An example of this is the Playbuilder scheme initiated in 2008 to create 3,500 new or refurbished play parks. As reported by BBC News (2010) the £235m scheme was withdrawn leaving some communities with a plan for a play park but without funding. Where provision was completed this did not necessarily meet with full approval, an interview participant for this investigation disappointed that there was no mandatory aspect ensuring provision was both accessible and inclusive.

The approach to play policy varies within the United Kingdom; Wales, Scotland and Northern Ireland retain national level policies (Wood 2017). In England the Governmental play strategy published in 2008 does not form part of the current government's portfolio. This position challenged by the current leader of the opposition who wrote 'Play is essential, not an optional extra' proposing the recommendations of the 2016 All-Party Parliamentary Group on A Fit and Healthy Childhood are adopted (Corbyn 2015). These include the creation of a cabinet minister for children and, following the Welsh Assembly's lead, creating a new play strategy for England. Debate continues in 2018, Chris Leslie MP securing parliamentary time to discuss concerns over previous and planned closures of play parks (HC Deb 21 March 2018).

1.2 Motivation for this investigation

The evolution from an occupational therapist focusing on clinical practice to a student completing an investigation as a PhD candidate began in 2005. After 20 years working with people over 65 I had a 'mid-career crisis' and began working with children with disabilities in a social care team. This change required me to make the most of my transferable skills, but also to identify areas of practice where I needed to acquire new or enhanced skills. After three years of practice in this role I enrolled on the MSc Accessibility and Inclusive Design course at the University of Salford seeking to increase knowledge and ability. This to support my role in recommending home adaptations to promote independence and to support care-giving. A requirement of this course was the completion of an independent study and dissertation. The previous modules of the course had considered the needs of children, young people and adults; for my dissertation l decided to focus on those under the age of 18. The area investigated was access to physical play opportunities for mobility impaired children. This included surveys of play parks across Lincolnshire. The results of this area of the investigation highlighted how few aspects of play park provision supported access to play for children with restricted mobility. Following completion of the investigation, dissertation and subsequent graduation I had no intention of engaging in further study however a key foundation in occupational therapy is reflective practice.

As the mother of 3 boys, each with very different preferences in play; and at this time beginning to appreciate the impact of my youngest son's dyspraxia on his ability to engage in active physical play, reflection returned numerous times to a particular theme. What was it that made some play parks more popular? My involvement with children with disabilities and their families increased my awareness of where they chose to play, and conversely the places they avoided. These reflections appeared to confirm that some selections were based on convenience, that is proximity to home or a specific destination. Other choices did not appear to result from any specific reason, being based on a gut feeling that play experiences in one location were better than in another. Where families had choice and ability to travel new or updated play parks were visited, some becoming a favoured destination whilst others, superficially appearing the same, did not offer the necessary variety of play experiences. Returning

to occupational therapy practice, my reflection centred around the questions 'did play park provision support the play options for children with disabilities?' and 'what impact is this having on their opportunities to socialise and integrate with their local communities?'

Initially the focus centred on meeting the needs of those with disabilities, however through preparatory reading for my research proposal and literature review, and during my initial investigation an appreciation grew that these questions, whilst valid, had in part been answered through other investigations. Also, aspects of provision failed to meet the needs of children without disabilities, and in some instances the needs of adults facilitating children's access to play parks. This led to a reflection on both the aim of the proposed investigation, and the consideration of which aspects of play park provision were key.

This reflective cycle highlighted the importance of play value. This appeared to be the aspect most closely linked to the 'gut feelings' parents advised lead their decision-making regarding play park choice. Anecdotal evidence indicated play value was more important than accessibility for families of children with disabilities; the overall play experience negating the difficulties in accessing some sites. Where did this leave my investigation? Which were the questions which should be focused on?

Reflecting again, play value remained, but how was this achieved? Every play park results from active decision-making. Equipment and site design are selected combining to create play value. Still, these cannot be considered in a vacuum, aspects such as accessibility and inclusion also relate to the adults facilitating play opportunities, and connected to, but not directly influencing, play value. Taking this into consideration the focus of the investigation moved to the decision-makers; *how and why did they make their choices leading to the resulting provision?* This question allowing for key aspects (play value, accessibility and inclusion) to be considered, surveys of case study play parks providing data evaluating provision. As always one question leads to others. *Who actually commissions our play parks? What design support do they have? What aspects do they consider to be most important?* And finally, *Are the issues identified in my MSc*

investigation still present? These led to this investigation, a formal approach addressing these questions within the context of English provision.

This process of review and reflection continued throughout this investigation concluding with the completion of this thesis. Figure 1.1 illustrates how the different aspects sit and are interlinked within the research journey, with the green ovals indicating data collection methods utilised.

Figure 1.1 Research journey for this investigation

1.3 Research aim and objectives

The aim of this investigation is to understand the reasoning and decision-making employed by those responsible for the creation or redesign of play parks. This facilitating the provision of accessible, inclusive facilities offering play value for all. To achieve this aim six objectives were identified:

- To investigate the importance and benefit of play, and in particular play outdoors, for children of all abilities.
- To compare and contrast the accessibility and usability of established play park facilities.
- To examine the methods by which those involved with play park commissioning choose or influence the design of play parks.
- To evaluate the different approaches to consultation undertaken by play park commissioners.
- To critically analyse play value offered by the design of case study play parks in relation to meeting the needs of those with differing abilities.
- The development and validation of a tool to evaluate existing play park facilities, supporting the creation of new, or refurbishment of existing play parks and supporting decision-making processes used by commissioning bodies.

1.4 Structure of this thesis

Following this introductory chapter, the thesis chapters are as follows:

Chapter 2

A literature review was completed considering the impact, importance and benefits derived from play, especially play outdoors. The chapter continues with a review of the influences on children's access to play and how play parks form part of the built environment. Concluding the chapter is an overview of advice and information on group decision-making within the context of play park provision.

Chapter 3

Research investigations require a methodological foundation supporting their design and completion. This chapter presents an overview of relevant philosophical and strategic approaches which are then developed in the next chapter.

Chapter 4

Chapter 4 outlines the research methodology adopted for this investigation using the concept of the research onion proposed by Saunders et al. (2009). The content of the chapter provides justification for the adoption of a case study approach and explanation of Activity Analysis as a method of identifying what aspects of play are supported within play parks.

Chapter 5

To enable completion of site surveys for both the initial and main investigation documentation was required to ensure the appropriate data were collected and recorded in a consistent manner. This chapter describes the information identified to assist in the creation of the Play Park Evaluation Tool (PPET). Additionally, it outlines the process by which the site survey tool was created.

Chapter 6

During the course of this investigation it was identified that the PPET would have value outside of this context. This chapter outlines the initial validation step and the results from this.

Chapter 7

An initial investigation was completed evaluating provision at 20 play parks. The purpose of this was to establish if current provision consistently offers high-quality play opportunities with play value. The findings from this investigation are presented in this chapter to provide the reader with an understanding of the outcome which supports the continuation to the main investigation.

Chapter 8

The main investigation considers play park provision at 8 case study sites selected to represent the most common processes by which these are commissioned or refurbished. Chapter 8 presents the results from the participant interviews and site surveys considering these in the context of themes from both the literature review and participant interviews.

Chapter 9

Chapter 9 contains the discussion arising from the results. It describes these within the context of the key themes identified previously and the high-frequency topics in the interview data as this represents the areas of greatest interest to participants.

Chapter 10

The final chapter presents the conclusions arising from this investigation prefaced by a family's reflection on their experience of accessing play in a play park. The conclusions are presented in the context of the research objectives following which the contributions to knowledge, methodology and practice are identified and discussed. Subsequently the challenges and limitations linked to this investigation are acknowledged following which opportunities for future research are presented.

Chapter 2 Literature review

2.1 Introduction

The literature review for this investigation encompasses the wide and varied influences on the provision of play parks. Topics include play and play theories, settings linked to physical play, benefits and detriments linked to outdoor play, and the influences and factors affecting children's access to play. Given the focus of this investigation on accessibility and inclusion the literature review also considered the play of children with disabilities, the influence of adults (both as creators of play parks and as facilitators of play opportunities), and the need to consult with children as end users of play parks.

Provision of play parks initially appears to be a simple task: identifying a suitable space, providing equipment and safety surfacing, and once open, completing ongoing maintenance and routine safety checks. Whilst this simplistic approach will deliver a play facility, its effectiveness and suitability cannot be guaranteed. Over the past 30 years there has been a growing body of research examining the importance and impact of play parks; considering various aspects such as how they meet the needs of the setting (educational / neighbourhood) and users, as well as effective design and risk reduction.

The scope of this investigation requires the consideration of the relevance of play as the basis for play park provision. As play park designs result from choices taken by those responsible for their commission this study also encompasses an exploration of the influences on their decision-making. There is currently a focus on enabling children and young people to actively engage in the processes and decision-making which impact on their lives. Therefore, any review of play provision rightly considers consultation within its scope and is included in this literature review.

The range of disciplines underlying and impacting on play park provision is extensive, including health sciences, geographies and social sciences. The breadth of influence in this area is reflected in the literature review presented in the following sections.

2.2 Play

Play is an activity intrinsically linked to childhood in the modern perspective of life. Historically play and playfulness were acknowledged as accepted behaviours, however children were treated as 'mini adults'. A defined period identified as 'childhood' was not recognised until the nineteenth century, nations in the developed world introducing legislation differentiating between adults and children in the labour market. In the UK in 1821 child labour formed approximately 49% of the workforce with children as young as five working in agricultural gangs (Guldberg, 2009; The National Archives, 2015). Early nineteenth century legislation provided two hours of education for children employed in textile factories, later extended to all employed children. By the beginning of the twentieth century legislative changes increased the minimum age at which child could legally be employed and introduced free education for all. This effectively established the period now recognised as 'childhood'; when a child is expected to spend the majority of their time in education, leisure or play. During this time work tasks are unpaid; limited to home or family settings. It is worth noting, as Guldberg (2009) advises, this notion of childhood is still not universally experienced.

Play, and why children play, is a subject widely considered and investigated; an early instance of this Plato's recognition that play influences a child's development (D'Angour, 2013). This early opinion of play as a value-laden activity was not commonly held. It was not until the development of early 'classical' play theories in the nineteenth century, that play activities were reflected on and meaning attributed to them. This echoing the other changes in the attitude towards children as outlined above. Initially play theories focused on physical aspects of play and their benefits. Modern theorists later developed these early ideas, including other aspects such as emotional, cognitive or intellectual benefits derived from play. Tables 2.1 and 2.2 provide an overview of some relevant key theories.

Classical theories of play			
Theory	**Theorist(s)**	**Summary**	**Perceived benefit**
Surplus energy theory	Schiller 1873 Spencer 1875	Because parents meet their basic needs children expend the energy they would normally use for survival in playful activities.	Physical
Relaxation theory	Lazarus 1883 Patrick 1916	The constant state of learning a child is in leads to a need for an activity (play) to relax and recharge energy levels to enable further learning.	Physical
Recapitulation theory	Stanley Hall 1883	Play is the method by which basic primitive instinctual skills which are not required for future survival are worked through and eliminated.	Physical
Instinct theory	James 1890	Play activities are as a result of a child's inherited instincts to respond to a stimulus such as reacting to a bouncing ball or a pretend peril in imaginative play.	Physical
Preparation for adulthood	Groos 1896	Play provides the opportunity for children to practice skills they will need for survival.	Physical & Intellectual

Table 2.1 Summary of classical play theories

(Sourced from: Hughes (2010); California State University (2015) & Designed Instruction (2013).

(note: there are minor inconsistencies between sources)

Theory	Theorist(s)	Modern theories of play Summary	Perceived benefit
Psychoanalytic	Freud 1908 Erikson	Play is one of the ways a child resolves inner conflicts and anxieties. The therapeutic activity enables these issues to be resolved in a socially acceptable manner. Freud focused on the role of the id and anxiety management whilst Erikson developed the theory to include play as an ego-building function through skill acquisition.	Emotional and social
Cognitive theory	Piaget 1962 Vygotsky 1978	Based on Piaget's general theory of cognitive development and that there are increasingly complex stages of play (functional play – modified symbolic play). Adaptation between human being and the environment based on the individual's construction of their environment, in particular, to think about, and solve problems. Key features are *Assimilation* (interpreting new experiences) and *Accommodation* (adjusting cognitive structure following new experiences). Play is purely assimilation (new experiences) with imitation the practicing and accommodation of experiences. Accommodation (adjusting cognitive structures) can become a new experience (assimilation) and therefore become play and so is context based.	Intellectual & social
Arousal Modulation	Berlyne 1969 Ellis 1973	The body needs to maintain its central nervous system in a state of equilibrium. Children maintain this optimum level of arousal though play activities.	Physical and emotional

Table 2.2 Summary of modern play theories

(Sourced from: Hughes (2010), California State University (2015), & Designed Instruction (2013).

(note: there are minor inconsistencies between sources)

The growing recognition that play and playfulness are a vital part at all stages of life is highlighted by Vandenberg & Kielhofner (1982). They also support the view that play has an evolutionary role in developing cultural diversity, through the imitation and testing of potential behaviours. In childhood this focuses on tool use, language and social skills, with repetition of activities enabling consolidation of new skills. This an activity Piaget (1951) noted, advising this repetition can occur simply for the pleasure of reiterating both acquired and mastered skills.

For this researcher, as a practising occupational therapist, the relevance of play for children and young people requires consideration. Bundy (1993) identified play as a key childhood occupation, while Kielhofner (2009, p44) considered definitions of occupation summarising these as 'play/leisure, activities of daily living, and productivity'. This summary supports the identification of play as 'children's work' by those including Piaget, Montessori and others (Designed Instruction, 2013). This confirming the importance of play activities; however not all agree with this approach. Landreth (2012, p8) considers this definition as 'regrettable' as, in his opinion, this is designed to legitimise play as an activity only by aligning it with activities important within adults' world views. Landreth defines work as an activity which is 'goal-focused' and 'directed toward accomplishment or completion of a task', with play as an activity which does not require the achievement of a goal to legitimise it. In the authors' opinion, these contrasting views on the terminology used to describe play activities do not diminish the role of play for children, instead confirming it as an activity with value, whichever position is taken. Play is a universal right and an essential part of childhood, this a position enshrined in the United Nations Convention on the Rights of the Child: Article 31 (1989).

Whilst there is a recognition of the importance of play, literature concerning children's play activities is viewed through different lenses. Research on this topic can broadly be divided into the following three categories:

- Play in an educational setting
- Its use as a therapeutic tool
- Free, or undirected play

The literature review presented below briefly considers the first two categories. This is followed by sections on free, or undirected play, the impact of play deprivation, as well as aspects relating to play outdoors.

Play in educational settings

Play in educational settings comprises of two aspects. Principally play is viewed as a medium to inform, educate, and develop children's skills (Jachyra and Fusco, 2014; Lillemyr, 2009). The activities children engage in during break times are considered as having less importance. The use and impact of play as an educational medium have been the focus of research with emphasis on early years settings; children up to the age of five. This educational focus does not just concentrate on classroom-based education, increasing attention is paid to outdoor learning and its benefits (Ouvry, 2003; Bilton, 2010). Both pre-school and school settings have a structure to their day, within this, periods are set aside for non-academic, unstructured activity. In the report by Blatchford and Baines (2005) break time, (UK) or recess (United States of America (USA)), is described as having physical, educational, social and developmental implications. This opportunity for children to take time out from lessons during the school day and to play can be viewed as a secondary, less relevant activity. This possibly relating to the Surplus Energy Theory of Play proposed by Schiller (1873) and Spencer (1875) (Table 2.1), who identify the purpose of play in educational settings as allowing children to 'let off steam' between periods of learning (Evans and Pellegrini, 1997).

Concerns over the increasingly sedentary lifestyles of children, and the resulting health implications have prompted research into the design of school playgrounds (Dyment & Bell, 2007; Dyment, Bell & Lucas, 2009). Stanton-Chapman and Schmit (2016) reported that professionals working with those with special educational needs considered the provision for 2 to 5-year-olds as inadequate; lacking in interest and stimulation, and not accessible for those with disabilities. Stanton-Chapman and Schmit (2017) found carers also considered this situation to be replicated for children with disabilities across both school and public playgrounds in the USA. This finding; that play provision within Special Schools does not consistently meet the play needs of this population, is surprising as these are play facilities commissioned by professionals with an

understanding of child development and of those with additional needs. Whilst most research in this area focuses on early years education, the school playground is an area accessed by children of all ages, often segregated by age or ability; although, as noted by Blatchford and Baines (2005), children's focus moves from play activities to socialisation with peers as they mature.

Free, or undirected play

For this researcher this distinction between adult initiated play and free play is important. Therefore, this investigation does not adopt a specific play theory, rather a position concurring with the summary by the Department of Culture, Media and Sport (DCMS) in the report entitled Getting Serious About Play,

> *'Play means what children and young people do when they follow their own ideas and interests, in their own way and for their own reasons'.* (DCMS, 2004)

and a definition originally written by Bob Hughes of Play Education in 1982 who describes play as behaviour which is

> *'freely chosen, personally directed, and intrinsically motivated, i.e. performed for no external goal or reward.'*
> (Youth Highland, 2014)

Views on the frequency children engage in free play vary; for example, Brown et al. (2008) propose it does not occur as frequently as general opinion suggests. This position is however expressed in a publication for professionals working in the field of Playwork. This a profession working to facilitate children's play opportunities which therefore may influence the stance adopted.

Behaviours encompassed by these definitions are wide-ranging, however children are not a homogenous group, and, as noted by Baylina Ferré, Ortiz Guitart, and Prats Ferret (2006), have differing needs and wishes in relation to play activities. The benefits of play identified by play theorists, do not serve as descriptors for what is in fact a complex multi-faceted behaviour manifesting itself in exuberant physical episodes, in quiet solitude, or other play behaviours dependent on a child's needs. Discussion of benefits

to children through engaging in active play must however be considered alongside the knowledge that in initiating and enjoying free play children do so without considering the benefits or detriments this activity brings (Sandseter & Kennair, 2011 p273), other than their enjoyment in the moment.

Play in therapeutic settings

Within the setting of medical intervention or rehabilitation the need is to engage with children and young people in a manner which has relevance to them. Play, as a child's preferred occupation, is the therapeutic medium selected because it is not only a mechanism they use to understand events but also an is enjoyable activity. According to Frost (2010), the use of play as a therapeutic medium gives it the power to promote healing, as, even in free play, children work through feelings and resolve issues. This process is therefore utilised therapeutically, either within a therapeutic relationship with a Play Therapist, or as an activity medium within an intervention plan designed to promote skill acquisition. The British Association of Play Therapists (BAPT) defines play therapy as:

> *'an effective therapy that helps children modify their behaviours, clarify their self-concept and build healthy relationships...children enter into a dynamic relationship with the therapist that enables them to express, explore and make sense of their difficult and painful experiences'.* (BAPT, 2014)

Other professionals working with children such as occupational therapists, physiotherapists or speech and language therapists may incorporate play in interventions or therapy programmes (Missiuna and Pollock, 1991; Cordier, Bundy, Hocking & Einfeld, 2009) either during face-to-face contact, or by parents and carers continuing therapeutic activities in the home setting. Knox (2005) differentiates these activities from free play by the goals and objectives set by others, who select and direct the activity. Missiuna and Pollock (1991, p883) remind therapists, whilst these interventions may include play and playfulness, they should consider whether these are truly play episodes which meet the definition of free play as 'as a pleasurable activity that is emotionally satisfying'. This tension between play and play as a therapeutic medium is also identified as an issue by Lynch, Prellwitz, Schulze and Moore (2018).

They advise that occupational therapists do not appear to facilitate therapeutic interventions where the intended outcome is to enable play occupations. Therapists in Ireland, Sweden and Switzerland responding to Lynch et al. identified play as 'a means to an end' (p6); that is play is only used to achieve a therapeutic aim such as skill acquisition.

2.3 Play deprivation

Whilst play as an activity for children is recognised as important, so too is the absence of play. Not participating in play may deprive children of essential experiences (Play Wales, 2003; BBC News, 2007) impacting on social, cognitive, emotional and physical development. Lack of play opportunities is most likely to occur in conjunction with other forms of deprivation, therefore issues attributed to play deprivation are unlikely to result solely from restricted access. Studies including those by Kaler and Freeman (1994), Morison and Ellwood (2000) and Levin et al. (2015) investigated the effects of deprivation experienced by children raised in, or adopted from, Romanian institutions. Kreppner, O'Connor, Dunn, & Andersen-Wood (1999) and Levin et al. (2015) found significant differences in play behaviours. Children with Romanian institutional backgrounds were less likely to engage in pretend play, used less interactive role-play, demonstrated reduced awareness of others' mental states or physical distress, and appeared to have reduced enjoyment during play with those conducting the investigations.

Social and emotional interactions are essential for all children; lack of play activities, as with the Romanian institutions investigations above, will impact on children's development. Brown and Webb (2005) highlighted the positive influence of play within these settings by investigating the introduction of Playwork within a Romanian paediatric hospital. Their study underscores play as a medium initiating change, thus reflecting the findings of Taneja et.al. (2002). Such examples of deprivation are both extreme and rare but confirm that restricted access to play does impact children's development. Frost (2010) proposes concerns over play deprivation should extend to the impact of changing play patterns for children living in the twenty-first century. Whilst acknowledging Frost's position on the increase of sedentary or digital play and

the trend towards structured play opportunities (see Section 2.4.1) this researcher does not consider the level of deprivation experienced to be comparable.

2.4 Free play outdoors

Children will play wherever they find the opportunity. Adult facilitated play activities found in educational or therapeutic settings are mostly, but not always, facilitated indoors. Free play may take place indoors, but in the context of this study play parks are considered a key outdoor location for free play. Therefore, this section considers aspects of free play which are particular to outdoor settings; both beneficial and detrimental. These then explored in the context of the results from this investigation in chapter 8.

2.4.1 Benefits of free play in outdoor settings

The Office of the Deputy Prime Minister (ODPM) (2003) recognised, whilst not all children need to access play spaces in the same way, they are fundamentally entitled to go out and play. Given the definitions outlined in the section above covering aspects of play behaviour in all locations this section considers the following question. What does outdoor play offer which is specific to this environment and cannot be replicated indoors?

Biophilia, the love of life or living systems, is a hypothesis originally proposed by Wilson (1984) explaining the human need to interact with nature. Kahn (1997) completed a review of the literature relating to Biophilia alongside studies of children in a deprived area of Houston (USA), in the city of Manaus, and a Brazilian village accessible only by boat, drawing the conclusion there is a basic human need for interaction with nature. Play parks can be described as unnatural features within the environment, with fixed elements, either constructed of man-made materials, or of natural materials manipulated into structures. However, even in inner-city areas, their position outdoors brings users into contact with the natural environment, even if this is limited to experiencing passing seasons through weather conditions, seeing a tree; patches of grass or soil; or through observation of animals, insects or birds.

For children being outside matters (Norðdahl and Einarsdóttir, 2015), and outdoor play experiences are considered more fun than indoor play (Miller and Kuhaneck, 2008). One reason for this may be children consider outdoors as 'their' environment (Tovey, 2007), whilst play indoors is within environments supervised by adults (parents, teachers or play leaders). Given the removal of spatial restraints inherent in indoor play, children adapt outdoor play to their surroundings. Tovey (2007), advises more exuberant, louder and challenging play is typical, these behaviours exercising the larger muscle groups, this a stance supported by the observations of Cleland et al. (2008). An additional benefit noted by Tovey (2007), is the opportunity for children to test out and discover effects of physical forces, such as the effort required to climb or hang, and acceleration experienced when sliding. The varied activities within a play park provide vestibular stimulation (Tovey, 2007) supporting the development of proprioception, or the awareness of the body in space. These, and other benefits, are recognised by educationalists (Rickinson et al., 2004) and are leading influences on a move to increase teaching in outdoor settings for students of all ages.

Play outdoors and life skills

Life skills are defined by UNICEF (2003) as 'psychosocial abilities for adaptive and positive behaviour that enable individuals to deal effectively with the demands and challenges of everyday life' categorizing them as cognitive, personal and interpersonal skills.

Children, through building relationships with their peers,

> *'experiment with social roles and learn and practise the control of aggression, the management of conflict, the earning of respect and friendship, discussion of feelings, appreciation of diversity, and awareness of the needs and feelings of others.'* (UNICEF, 2013 p40)

This positive impact of outdoor play for children recognised by mothers surveyed by Clements (2004), included not only on physical and motor skills, but also other key life and social skills which enable children to

> *'Explore life, investigate how people relate to each other, and examine the intense emotions of their realities and imaginations.'*
> (Buchanan & Johnson, 2009 p54)

Playing outdoors provides opportunities for developing skills such as collaboration and conflict resolution (McClain & Vandermaas-Peeler, 2016; Rodger & Ziviani, 1999) and learning about social roles (Missiuna & Pollock, 1991), as the use of shared space requires children to learn to play alongside others including those they may not know. McClain & Vandermaas-Peeler (2016) observed more positive than negative social behaviours during pretend-play in outdoor settings. Oke and Middle (2016) advising the design of playgrounds can facilitate this play type.

Different structures within play parks, and the challenges these present, provide an opportunity for children to test out skills and activities which may cause them to feel apprehensive, to experience failure, or to become frustrated. Resolving and overcoming these issues, without adult intervention or support, assists in the development of empathy, self-awareness, impulse regulation and insight (Burdette & Whitaker, 2005), whilst also creating opportunities to reflect positive self-image (Buchanan & Johnson, 2009). Opportunities to engage in risky play are found more in outdoor settings, children learning to manage physical challenges and assess risk-taking through 'skirting the borderline of the feeling of being out of control' (Sandseter & Kennair, 2011 p258).

Free play outdoors offers learning opportunities assisting with cognitive development. This contrasting with sedentary play using electronic devices which Frost (2010) suggests is impacting on the cognitive abilities of a generation including reduced concentration span and a habituation to instant results. Burdette & Whitaker (2005) noted there has been little research into the relationship between physical activity (either indoors or outdoors) and cognition, however outdoor play is not solely a physical activity. An investigation by Sumpter and Hedefalk (2015), identified collective mathematical reasoning in young children, this including estimations of height during free play. Activities in play parks include pulling, pushing and experiencing different speeds, both linear and rotational, therefore it is not unreasonable to presume children gain a practical understanding of these forces outside of formal learning. Not all life skills linked to play outdoors come directly from play activity. Being connected to local communities through the use of public spaces has been identified by Ujang, Kozlowski, and Maulan (2018) as one of the mechanisms promoting social interaction for adults.

The locations studied for their investigation having less significance for children in comparison with a neighbourhood play park, but the principle is consistent. Given the restrictions in children's autonomous mobility (see Section 2.6), connection to an open space where they can interact with other children, exercising creativity and imagination (Habibe, 2016) can only increase the importance of play parks within children's geographies. Torres and Lessard (200, p75) noted if a child's play is limited to their home they 'become strangers in their own neighbourhood' developing a perception that risks within this area are high. This view is supported by Prezza and Pacilli (2007) who reported children with more autonomy and who play in public areas have a stronger sense of community and better neighbourhood relations.

Play outdoors, health and development

It is understood that physical activity has associated health benefits, with the most obvious of these being improved physical health. Use and development of muscles supporting gross motor skills is an easily recognised gain, however there are additional benefits impacting on mental well-being and children's development, as well as less obvious physical benefits.

Physical health benefits

The presumption that outdoor play has a primary benefit for physical health is reasonable, the physical freedom provided through larger play spaces encourages more exuberant physical play. Clements (2004) advises the physicality of outdoor play brings benefits such as bone and muscle growth, balance, fine, and gross motor skills. Brennan-Olsen, Rodda and Duckham (2017) suggest those with a sedentary lifestyle in childhood will have low muscle mass; lack strength and physical function, and there is some evidence this impacts on bone density. As bone density is built up throughout childhood through weight-bearing physical activity an increase in sedentary time for children has the potential to affect their propensity for fractures in later life. Additionally, Brennan-Olsen, Rodda and Duckham (2017) suggest sedentary lifestyles will reduce the development of reaction skills. This may appear as clumsiness however an inability to maintain balance may result in falls. For those with reduced bone density this increases the risk of fractures. The UK, in common with much of the developed

world, has seen a rise in levels of children's obesity (Kings Fund, 2015; Bosely, 2017) with corresponding concerns over related health issues such as Type 2 Diabetes. Tovey (2007) argues simply transferring physical activity indoors, for example through the installation of exercise bicycles in preschool and primary settings, does not offer the same opportunities for spontaneous play and exploration found in outdoor settings. There are current discussions and investigations around the hypothesis that activity levels in childhood influence those in adulthood. This view is supported by Ward Thompson, Aspinall and Montarzino (2008), although Smith et al. (2015) found this applied to sports activities rather than free play. Whilst there is supporting evidence for the physical benefits resulting from free play in childhood the lack of clear evidence regarding transference of activity levels into adulthood should not prevent promotion of outdoor play.

Physical benefits from outdoor play include less obvious changes including to eye-sight, focusing on longer and variable distances which develops eye muscles. McBrian, Morgan & Mutti (2009) identify this as key in the prevention of early development of myopia (short-sight). Additionally, exposure to sunlight provides vitamin D, essential for the development of healthy bones preventing conditions such as rickets. Sunlight also affects physiological processes, such as the circadian and circannual rhythms, driven by exposure to natural light. This, especially in the morning, synchronises body clocks with the earth's twenty-four-hour cycle (Van Bommel, 2006) adjusting levels of hormones, including cortisol and melatonin, providing energy when it is most needed and boosting the immune system. While these benefits may not be found universally, the investigation by Söderström et al. (2013) linked the quality of the environment to health benefits including improved sleep patterns and cortisol levels in pre-school children.

It is accepted that children spend increasing amounts of time indoors, this limiting contact with the diverse organisms supporting the development of healthy immune systems (Rook, 2013; Mesure, 2018). An investigation by Von Hertzen and Haahtela (2006) identified differences in microbial exposure levels between rural and urban locations, concluding that the modern industrialized environment may not provide the necessary stimulation to develop effective immune systems, which is in line with

conclusions drawn by Olszak et al. (2012). The presumption that playing outdoors is less hygienic than indoor play, may not apply in all situations, as suggested in the investigation by Davis et al. (1999) identified higher than usual levels of harmful bacteria in ball pits, common features in indoor soft play areas.

Mental health benefits

Benefits derived from the development of physical abilities are not solely related to fitness and weight-management. Frampton, Jenkin and Waters (2014) note positive effects on well-being and self-esteem; a position supported in the report Let's Get Physical from the Mental Health Foundation (2013, p1699). The synthesis of observational studies by Korczak et al. (2017) concluded there was evidence supporting the reduction of depression during physical activity; but could not relate this to benefits continuing after an activity had ceased. The increase in emotional well-being during free play was identified by Howard & McInness (2013) through observation of behaviours such as smiling and clapping within a controlled environment. This study facilitated free play by the subjects therefore this offers the possibility these effects can be seen during free play in other locations and activities.

Increasing focus on structured or supervised play activities, introduces competitive elements, and measured achievement. In light of this, consideration should be given to Lagerberg's (2005 p1699) position; activity context is of relevance. Lagerberg positing a play context is ideally 'one of enjoyment rather than of harsh discipline and skill-dependent games'. The latter requiring children to acquire a level of ability, therefore introducing the possibility of failure, this potentially impacting on their self-esteem. Contrasting this, free play offers benefits from activities experienced within parameters children feel most comfortable in. Environments such as play parks offer choice and graded activities, enabling the experience of success and achievement following failure, achievements providing positive feedback. Risk and challenge are discussed later in this chapter but the lack of risky play opportunities for children has been identified by Sandseter & Kennair (2011) as a contributing factor to psychopathology. They propose that exposure to risks enables fears to be confronted and managed, an evolutionary

mechanism with anti-phobic effects, as without this, fears remain even if they are no longer relevant.

There are many pressures impacting on everyday lives of children, these highlighted by the National Society for the Prevention of Cruelty to Children report (NSPCC, 2015) which advises children experience stress at levels that impact on mental well-being. The increase of time spent in indoor activities may contribute to this. Wirz-Justice et.al. (1996) investigated the impact of natural light experienced outdoors for those diagnosed with Seasonal Affective Disorder, finding this more effective than artificial light treatment in improving mood and reducing symptoms. It does not seem unreasonable to conclude that children would therefore benefit from increased exposure to natural rather than artificial light.

2.4.2 Detriments linked to play in outdoor settings

Whilst the benefits of play outdoors are the focus of campaigns and research, there are disadvantages which must be acknowledged. These can be considered under three general headings, those outwith our control, those directly linked to human activity, and those arising from activities a play park is designed for, i.e. active play. Play outdoors exposes children to all types of weather conditions, however inclement weather will discourage outdoor play for many children. Heavy, or persistent rainfall, or icy conditions may increase the risk of injury following a slip or a fall, but of greater impact is hot or sunny weather. Good conditions encourage play outdoors especially in the U K's changeable climate. Long periods of hot sunny weather are relatively uncommon with The Met Office noting in its report for 2013

> *'Recent summers from 2007 to 2012 have been often characterized by unsettled, cool and at times exceptionally wet conditions.'*
> (The Met Office, 2017)

Therefore, it is not unsurprising, children opt to play outdoors making the most of rare opportunities. Unlike countries such as Australia, children, and often parents, have limited awareness of hazards linked to hot, dry weather.

The first of these is dehydration, play parks are generally located in residential areas, or in out-of-the-way locations, where opportunities to purchase water or other drinks are limited. The UK has not yet established a culture where it is the norm to take a drink bottle when going out to play; unless to a sports activity such as football. Recognising the need to re-hydrate when immersed in a game or activity will not be a child's priority. However, dehydration can lead to thirst, light-headedness and fatigue especially as a child's ability to regulate body temperature is less developed than adults (Vanos, Herdt & Lochbaum, 2017). Of greater concern are heat exhaustion and heatstroke (or sunstroke when linked to direct sun exposure) (NHS Choices, 2017), which are often linked to higher physical activity levels. Recognising and treating the symptoms of heat exhaustion (extreme thirst, dizziness, muscle cramps, headache and rapid pulse) prevent its progression to heat or sunstroke which are more serious and may require hospital admission.

The impact of play outdoors in the sun includes exposure to ultraviolet (UV) rays. Over-exposure causes sunburn which is linked to the development of melanoma (Hoel et al., 2016). As noted previously, lack of exposure to sunlight may result in reduced levels of vitamin D and rickets, therefore a balance between under and over-exposure is required. Exposure to UV rays may also affect eyesight. The structure of children's eyes are as yet unaffected by aging processes, the lens clear and the pupil size being larger than of adults meaning greater levels of UV rays enter the eye. Children are identified by Behar-Cohen et al. (2013) as a population of special concern who. advised of short and long-term impacts of such high exposure to UV rays, including Photokeratitis, photoconjunctivitis and the accelerated aging of eye structures. Similarly, Taylor et al. (1992) propose high levels of exposure may cause ocular damage, which may be related to later development of age-related macular degeneration. Raised levels of pollens occur across the year, for those with asthma or hay fever outdoor play may be a cause of discomfort; severe cases resulting in illness or hospital admission. The impact depends on an individual's sensitivity to the allergen. Many play parks are situated within grassed areas with trees close by, both of which are known to affect those with asthma and hay fever. The current focus on including natural elements within play areas (Park & Riley, 2015) may increase exposure to different pollen types exacerbating

symptoms; but should be balanced against benefits contact with nature can bring. The impact of climate and environment cannot be fully removed but can be mitigated in part through educational programmes encouraging the use of sun-cream, eye wear, regular re-hydration and allergy treatments.

There are areas of concern relating to human activities which can either be removed or their impact reduced. Air pollution linked to car emissions, burning of waste products and industrial emissions contributes to reduced lung function in both asthmatic and non-asthmatic children (WHO, 2005; Ierodiakonou et al. 2016). Gredilla et al. (2017) in their study of Brazilian play parks in Rio Grande do Sul state identified pollutants including lead. The investigation by Shamsudin (2017) evaluated the working memory of primary school children in urban and rural areas of the Malaysian state of Melaka, finding a correlation with raised blood lead levels and reduced working memory. Whilst the UK is working towards achieving European Union air quality standards these have not been achieved since 2010 (Hirtenstein, 2017). National policies aim to reduce the impact of air pollution; in the opinion of this researcher local changes such as consideration of a play park's location and the introduction of waiting restrictions in adjacent areas preventing emissions from idling car engines may assist in the reduction of air pollution linked to traffic.

Contamination of soil has also been linked to modern life through the similar mechanisms. The synthesis of evidence on children's environmental exposures across all environments completed by Ferguson, Penney and Solo-Gabriele (2017) noted the presence of pollutants including heavy metals, dioxins, benzene and pyrene. Analysis of paint from play equipment installed in play parks in the south west of the UK identified pollutants including lead even in recently applied paints (Turner et al. 2016). This a higher risk for younger children who may explore their surroundings orally. With higher concentrations of potentially harmful chemicals found in red and yellow paints the frequent use of these bright primary colours in play parks is a concern, especially as Turner et al. (2016) did not identify a correlation between old, flaking paint and increased levels of contaminants.

Ferguson, Penney and Solo-Gabriele (2017) and Behar-Cohen et al. (2014) identify children as a sensitive population due to the ongoing development of their bodies. This is a concern, when children spend time playing outdoors. Typical play behaviours include crawling, rolling, floor-sitting and exploration through touch and taste, these actions bringing them into direct contact with soil. Soil and ground contamination through litter and dog fouling are common concerns raised by parents and those responsible for play parks due to the risk of infection. Bylaws were introduced enforcing the removal of dog faeces by dog walkers. This resulting in alterations in accepted behaviour, removal of faeces now common practice by most dog owners (Lowe et al., 2014). Dogs are not the only source of faecal matter found in play parks, other animals including cats, foxes and badgers use open spaces, however control of their behaviour is not possible and removal of their waste falls within a maintenance programme. Whilst general hygiene standards indicate removal of faecal matter is required, specific health issues including Campylobacter infections, roundworms and toxoplasmosis make its presence a greater concern. (Otero et al., 2018). General litter and detritus accumulate without an effective maintenance programme. Broken glass and sharp pieces of metal will cause injury and where there are sandpits or loose surface finishes these hazards may not immediately be apparent. News reports highlight parental concerns over the litter remaining after drug use including needles and sharps (Buckland, 2016; Roberts, 2017; Swift, 2017). These, like air pollution, are related to modern lifestyles and can be controlled; their negative impact minimised reducing risk to play park users of any age.

Risk-taking inevitably leads to failure and play parks are a location where children attempt risky activities. Some actions will be perceived by a child as high-risk, however risks are minimised through the design of equipment and choice of ground surfaces. This, as previously mentioned, enables children to explore and develop their abilities and to learn to assess risk. There are times when risk cannot be minimised; either through the actions of the child, or simply result from unforeseen incident. A child choosing to climb onto the top of a structure attempting a balancing act, or to leap from this height is not using it in the manner it is intended. Therefore, the design of equipment and choice of ground covering cannot always minimise the risk of injury. As

Sandseter and Kennair (2011, p259) advised 'no matter how safe the equipment, the children's need for excitement seems to make them use it dangerously'. Indeed, an activity may have been carried out previously without incident, but another factor may come into play and an injury occur. Play equipment design meets specific standards; but cannot always prevent injury. For example, a life-changing spinal injury occurred to a teenager when two children simultaneously dismounted from a nest swing tipping a third child off (Devlin, 2016). Injuries may result from actions such as leaps from moving equipment; momentum causing a collision; or result from a slip or trip. Alterations in equipment design responding to the introduction of standards have changed the type of injury reported. Previously reported injuries included head injuries; these are less common, however upper arm fractures have increased (Spiegal 2015, Adelson et al. 2017). The reported change may also be related to altered attitudes towards risk (discussed elsewhere in this literature review) with the removal of equipment viewed as higher risk. Not all injuries linked to play parks are of this severity, scrapes and bruises frequently occur during any active play activity. Indirectly linked to outdoor play is the danger of a road traffic accident. If children are encouraged to develop independent mobility there are risks attached to this; injuries may occur whilst a child travels to or from a play park. Parental oversight is not mandatory in play parks, nor staff or volunteers monitoring activity and behaviour. Whilst learning to negotiate and share away from parental guidance is a positive aspect of outdoor play, this lack of supervision leaves opportunity for bullying to occur and is one of the concerns cited by both parents and children (Habibie, 2016). Bullying incidents may be 'low level' such as name-calling or preventing a child joining in a game or using equipment, but they also may be more serious leading to injury or theft of property. The impact of these will in part depend on the child's robustness. Name-calling may affect a sensitive child far more than a more serious incident for a child who has a higher level of self-confidence. The location of a play park may limit some bullying behaviour if the park appears to be overlooked; or is close to a pathway in regular use.

Whilst we see there are disadvantages linked to play outdoors including that within play parks, these need to be considered alongside and balanced with the benefits this type of play gives. A child who does not experience outdoor play will miss opportunities to

grow and develop life-skills, physical abilities and to positively impact their health and well-being. Parents, who have genuine concerns about their child's safety, therefore may in fact unintentionally impede their child's ability to develop through restriction of outdoor play.

2.5 Child development - Sensory stimulation

A key area in a child's development is sensory processing. The organization and internal processing of sensory stimuli, plays a role in the mastery of daily occupations (Parham & Mailoux, 2010). These different sensory inputs need to be successfully integrated to enable the different parts of the nervous system to function together. Without effective integration individuals struggle with aspects of environmental interactions such as balance or coordination. Efrconline.org advise

> *'The interplay among the various senses is complex, and is necessary in order for a person to interpret a situation accurately and make an appropriate response'*. (Efrconline.org, n.d.)

Although vision and hearing are the primary senses for humans, these are not dominant senses in a child's early development. For young children the proximal senses; vestibular (relating to balance), tactile (relating to touch) and proprioceptive (the awareness of the body in space), provide key sensory input for children's development (Frost et al., 2004). Outdoor play offers alternative means by which these senses receive input, especially within a play park where there are a variety of ways to experience stimulation (Frost et al. 2004). Table 2.3 summarises these with examples of equipment providing each stimulus. This variety of inputs and experiences promotes neural plasticity, that is changes in the brain in response to the environment, age, etc. thus enabling learning and adaptation. The case report by Schaaf (1990) provides evidence of the impact of occupational therapy interventions based around 'sensory integrative and postural activities designed to meet the established treatment goals and objectives' (p71) with positive changes seen in both targeted behaviours and free play. Parham and Mailoux (2010), writing for occupational therapists working in the area of paediatrics describe how identification and treatment of specific sensory deficits can enable development of adaptive responses; this includes actions taken by individuals in

response to environmental demands. These targeted interventions emphasise the value varied sensory inputs have for the maturing child, therefore those available in outdoor play form a key part of a child's development process.

Stimulus	Proximal sense	Variations	Examples
Spinning	Vestibular	Lying / Sitting / Standing	Roundabout, swivel pole, net swing, Giants Leap
Sliding	Vestibular	Lying / sitting	Slide – straight, curved, tube, zip wire
Rocking	Vestibular	Lying / Sitting / Standing	See-saw, spring rocker
Swinging (Linear & Circular motion)	Vestibular	Lying / Sitting / Standing	Standard swing, net swing, Swing boat, rope swing,
Balancing	Proprioception	Lying / Sitting / Standing	Balance beam, bridge, stepping stones
Climbing	Proprioception	Ascending / Descending	Climbing frame, climbing wall, ladders, net/web
Crawling	Proprioception	Horizontal, sloping	Bridge, tunnel, balance beam
Hanging	Proprioception	Horizontal, static, moving	Monkey bars, rope swing, zip wire, Giants footsteps
Jumping / bouncing	Vestibular / Proprioception	Sitting, standing	Trampoline, different levels of platforms
Construction materials / finish	Tactile	Smooth, rough, uneven	Metal, wood, rubber, plastic, natural, rope,
Floor finish	Tactile	Smooth, rough, uneven	Grass, poured rubber, tarmac, wood chip, sand,

Table 2.3 Stimuli, associated proximal sense and examples of linked play park features

(Proximal senses listed derived from Parham and Mailoux (2010), variations / examples identified by author)

2.6 Changing Patterns in Outdoor Play

> *'children are disappearing from the outdoors at a rate that would make them top of any conservationist's list of endangered species if they were any other member of the animal kingdom'*
> Gill (2005).

This sentiment echoes that of Hendricks (2001, p55) who noted in 'many cities the children have disappeared from public parks'. Types of, and locations for play, have altered; most noticeably increased supervised and structured play activities this change in parallel with a decrease in children's independent mobility (CIM). Whilst not a play activity, reduction in CIM is interconnected with outdoor play, as reliance on adult facilitation of play opportunities influences when, and where, children play. With this in mind, this section considers CIM prior to addressing the changing patterns of outdoor play.

Children's independent mobility

Children's independent mobility is defined by Tranter and Whitelegg (1994, p265) as 'freedom to travel around their own neighbourhood or city without adult supervision'. This is an aspect of children's lives which has declined over recent decades (Nansen et al., 2015), with fewer opportunities available for travel without adult supervision or facilitation. Factors impacting on the choice of transport are varied and interconnected. Journeys facilitating activities for children (rather than for adult drivers engaging in activities with children accompanying them, e.g. shopping trips) will be to schools, play venues or activity clubs. A contributory factor to this trend may be increased car ownership, in the UK an annual increase of 3% was identified between 1971 and 2007 (Leibling, 2008); statistics from the Department for Transport (2016) highlight an increase of 600,000 cars on English roads between 2015-6. This report also advised of a reduction in bus use across two-thirds of English councils. These two factors influencing the number of journeys of any nature completed by car. An additional factor is the introduction of parental choice in school selection, the Education Reform Act (1998) promoting school selection across England and Wales. School league tables and publication of inspection body (currently OFSTED) reports enabling direct comparison of schools. Consequently, choices are based on academic achievement, pastoral care,

religious affiliation or belief; rather than the distance from home addresses. In some instances, decisions are made by Local Authorities reflecting limited school capacity (BBC News, 2015). Gomm & Wengraf (2013) report the most frequent option for work commutes is by car, parents often combining journeys to school with their commute to work.

Whilst a sedentary mode of travel reduces a child's physical activity level, these journeys may not have a negative impact on children's ability to navigate around, and feel part of, their local community. The investigation by Sissons Joshi, MacLean and Carter (1999) did not identify a negative effect on spatial knowledge resulting from accompanied journeys (by any mode of transport), and Freeman (2010) found, whilst children who attend local schools are more connected socially to their neighbourhoods, this does not alter if they are driven to school.

Changing patterns of play

The nature of children's play, indoors and outdoors has changed (Valentine and McKendrick, 1997, Skår and Krogh, 2009). The availability of increasingly sophisticated electronic devices has had a marked influence on all aspects of play in the developed world. Until the launch of Channel 4 in 1982 UK television viewing was generally limited to three channels, however, the advent of digital and cable services has multiplied viewing options. The Telescope 2014 report (TV Licencing, 2014) noted there were 32 channels dedicated to children's content broadcast in the UK, and the evolution of electronic devices had altered television viewing patterns; 'catch-up' services contributing to a rise in children's weekly television viewing. In addition, children are active internet users and video game players, home-based activities reducing outdoor time (Witherspoon & Manning, 2012 Tatli, 2018). For Frost (2010, p216) 'electronic play is a study in contrasts'; children benefit from accessing a world of knowledge, countered by potential exposure to unsuitable content. Contact with friends and peers often occurring during solitary, sedentary play; where social interactions take place via social media; photographs and videos replacing face-to-face contacts and experiences. This technologically savvy generation increasingly opting to play and interact online. It must be acknowledged, whilst not a replacement for traditional social and play

activities, these activities establish virtual communities, maintain friendships (Gill, 2007), and promote future workplace skills.

This change in play patterns results from several factors; including the increased provision of play equipment in gardens and the trend towards organised 'enrichment' activities after school (Barron, 2013). Traditionally play equipment for private gardens consisted of one or two elements, examples including swings (home-made or manufactured), climbing frames, seesaw, or sand-pit (Hendricks, 2001), these the exception rather than the norm. Currently a wider variety of equipment is on the market for garden use, including slides, modular units, trampolines, seesaws and bouncy castles. These can replicate experiences at play parks, but to a lesser degree as they are smaller both in size, and in the space they occupy. Garden-based play also restricts social experiences to interactions with invited companions. Increase in garden play equipment not only reflects greater availability, but also changing parental attitudes, possibly due to concerns over unsupervised play outside of the home.

Areas where unsupervised outdoor play occurs as have been described as 'home ranges' (Hart, 1979; Hart, 2002; Woolley & Griffin, 2015). Woolley and Griffin highlighting how these have decreased through an investigation of change over three generations comparing the geographical area accessed by children, their play locations, activities enjoyed and the number of companions participating in unsupervised play. Play outside the home requires free time, something today's children often lack. The Telegraph (Venning, 2015) reflects on the current trend of filling children's free-time with structured activities, and the resulting impact on family time. Frost (2010, p229) describes this parenting style as 'over-parenting', advising through over structuring children's lives parents are raising a generation who are damaged physically and emotionally. They are becoming 'group thinkers', looking to peers for support in decision-making (often through social media), leaving major decisions to parents or authority figures, and having little appreciation or understanding of the world beyond their front door.

2.7 Children with disabilities and play

As established earlier, play is a primary occupation for children; applying equally to children with disabilities, although as a group it is thought they play less (Imms et al., 2016). For this diverse group of individuals, each with their own personalities, preferences and abilities, Buchanan and Johnson (2009) and Metin (2003) support their right to access the same varied and enjoyable play opportunities as their non-impaired peers. They do however note, that in some cases, access to play opportunities can be limited by non-physical external factors, including time constraints due to scheduled personal care tasks, therapy interventions (Law, 2002), and sometimes a need for carers to facilitate play. This restricted access is acknowledged by parents but primarily linked to environmental factors (Bedell et al. 2013). Petrie and Poland (1998) note, for children with disabilities, participation in play is key to developing friendships, therefore time spent away from peers, and in non-play activities, has a greater impact for a child with a disability than for their non-disabled peers.

The phrase 'children with disabilities' encompasses much; and describes little. Each child experiences their disability (or disabilities) in their own way, and overcomes or accepts restrictions according to limits, self-imposed or external. Table 2.4 summarises from Knox (2010, p547) how aspects of a disability or impairment can affect play activities. Play behaviour of a child with a disability may not appear 'typical' in comparison with others of their age. A child with a learning disability or autism may engage in play activities considered age appropriate for a younger child. This possibly because these are simpler to comprehend, within their skill range, or comforting through familiarity of a repeated activity. In the same vein, children with motor impairments may prefer play equipment designed for younger children, as mastering challenges at this level provides a sense of achievement. Bundy (1993, p218) emphasises, for children with disabilities, the importance of achievement during play is more important than having 'a play age that is equivalent to their chronological age'.

Disability or impairment	*Aspect impacting access to play*
Physical	*Strength* *Coordination* *Stamina* *Manipulation / grip* *Pain*
Cognitive	*Comprehension* *Delayed development* *Limited attention span*
Behavioural	*Need for structured activity* *Repetition* *Socialisation* *Challenging behaviour*
Sensory **Visual / Auditory**	*Visual – location mapping, exploration* *Auditory –language, abstract concepts, socialisation*

Table 2.4: Examples of how disability or impairment can impact on play
Source: Adapted from Knox (2010)

The play of children with disabilities is often viewed differently both by adults and the children themselves. Hodge and Runswick-Cole (2013) highlight how opportunities to engage in free play can be withheld until developmental or therapeutic goals are achieved, play activities prior to this tailored towards rehabilitation and skill acquisition. Prellwitz and Skår (2007) reported children without disabilities described play activities in play parks as having a unique purpose and as their 'occupation', that is, a meaningful activity in itself. In contrast, children with disabilities described this play as 'activity'; goal-based tasks focused on completion of an action or a challenge, a view at odds with the description of free play. An observers' external view of would not necessarily discern this subtle distinction between these two groups during free play.

The difference between children with disabilities and non-disabled peers is highlighted in studies in which children described observation of others as 'play activity' (Gcaza & Lorenzo,2008; Tamm & Skår, 2008); adopting the role of a 'follower' in play activities to enable participation (Burke 2012a); or needing to request to join play activities (Gcaza & Lorenzo, 2008; Tamm & Skår, 2008). Active play with adults (either parents or carers) is an accepted way of playing for this population (Buchanan, 2009; Gcaza & Lorenzo; 2008; Skår,2002), this contrasts with the findings of Howard and McInnes (2013) who noted typically developed children's opinion of play activities altered when an adult was in close proximity. Activities are then no longer considered as play. For this group, if access to play is limited, outdoor play in play parks is further restricted (Stout, 1998). Investigations by Prellwitz, Tamm and Lindqvist (2001), and Prellwitz and Skår (2007), established these environments are not designed to support play for children with disabilities. The design of any space is key to inclusion. Imrie and Hall (2001) state

> *'Inattentiveness to, and exclusion of, the needs of the disabled, and other, people is evident at all stages of the design and development of the built environment.'*
>
> (Imrie and Hall, 2001 p6).

This statement applies to play parks as equally to other elements of the built environment. Where access is restricted, play opportunities are reduced leading to play deprivation. This may result from a physical limitation, such as a carers safety concerns preventing a child with a visual impairment from using monkey bars (Missiuna and Pollock, 1991). Play deprivation can also occur when a disability prevents, or impairs, social interaction or cognitive or sensory play. Whereas play for most children will be an inclusive activity, children described by Jeanes & Magee, (2012) as not 'reflect[ing] dominant social norms' are at risk of being excluded or marginalised, a situation recognised by Yantzi, Young and McKeever, (2010).

Studies have shown play in play parks is an activity desired by children with disabilities (Prellwitz, Tamm and Lindqvist, 2001; Prellwitz and Skår, 2007; Burke, 2012a), and when given the opportunity, they overcome their limitations, self-adapting their play to engage in meaningful play experiences (Burke, 2009) (Prellwitz and Skår, 2007), challenging themselves to achieve.

The differences in how play for children with disabilities is perceived is also reflected in the writing of authors on the history and development of play environments, including Hendricks (2001), Solomon (2005) and Frost (2010), who only briefly touch on the inclusion of those with disabilities. It is perhaps most telling when Solomon describes in her book strategies enabling designers to facilitate accessible play; the example selected was attached to a medical facility rather than one with open access. The suggestion by Bedell et al. (2013) that the disparity in play opportunities for children with disabilities can be addressed through increased access to organised and facilitated activities does not resolve wider concerns such as socialisation, accessibility and inclusion. The expectation that play parks are only for those who are physically competent needs to be addressed in order to promote inclusion (Wood, 2017).

2.8 Barriers affecting play within a play park

The built environment imposes different types of barriers preventing access to activities and opportunities, with play parks no exception impacted by choice of fencing, gates and safety surfacing. The selection of equipment in, and the condition of, a play park can also be barriers. Parents will make judgements based on the appearance of a park. For children the investigation by Reimers and Knapp (2017) found that aesthetics was more important for girls than boys. A further difference in gender preferences noted in Reimers and Knapp's study was that girls not only preferred attractive play parks, but those offering a high number of play facilities. (This study referring to aesthetics and attractiveness suggesting that natural elements contribute to this, but without clarifying what constitutes an attractive play park). Boys were less concerned by the level of equipment provision and a site's appearance. The reasoning for this preference was not explored by Reimers and Knapp but their result reflected conclusions by Colabianchi et.al., (2011) and Karsten (2003). The investigation by Colabianchi et al. (2011) focused on school play facilities including sports areas; this may reflect the preference for sporting activity by boys identified by Bocarro et al. (2012). It is of note that gender in itself can be a barrier. Karsten's (2003) investigation finding girls presence across the observed play parks ranged from 15-40%, this range reflecting differing cultural values, with girls from some ethnic groups largely absent.

Physical barriers, including gates and fencing, delineate an area, in this instance setting it aside for play and children. Such defining elements or barriers serve other purposes including safety; ensuring younger children remain within the play park; and exclude dogs. Where fencing is installed access points are required, the type and position of these key to facilitating access; or creating further barriers. In some instances, designs limiting access by one user group, such as cyclists, also unintentionally exclude wheelchair users (Dunnett, Swanwick & Woolley, 2002). Another common barrier is choice of floor surfacing. Concerns around the risk of injury resulting from falls onto concrete and grass in the 1970's led to their replacement with fall-attenuating alternatives including wet-pour rubber, rubber tiles, or loose fill surfaces such as wood chips (Norton, Nixon and Sibert, 2004). In Norton et al.'s historical review of literature related to playground injuries they found a reduced incidence of head injuries and increased safety, yet it does not seem Norton et al. considered the implications in relation to access for some user groups. Investigations have highlighted the impact of design choices on those with reduced mobility, also noting barriers for some were created by the poor choice of fixed play equipment (Baylina Ferré, Ortiz Guitart, & Prats Ferret, 2006; Prellwitz & Skår, 2007; Yantzi, Young & Mckeever, 2010; Ali Alkahtani 2018). A further example of a physical barrier is signage; restrictions limiting the upper age of users, and how an area is used. It can be argued signage is unnecessary as equipment denotes use; large items of complex equipment grouped together indicates this is not an area for the youngest age group who gravitate to equipment presenting achievable challenges. It is unlikely that age restriction signs are complied with, or even acknowledged, by children who focus on preferred play experiences, not restrictions imposed by others.

Changes to the physical environment are increasingly used to prevent actions which are considered misuse. Examples include the use of 'pig's ears' on walls and pavements deterring skateboarders, public seating with central arm rests, or uncomfortable surface finishes in doorways and under bridges to discourage rough sleeping (BBC, 2013). Conversely, the presence of a bench or picnic table in a play park indicates a location to stop and spend time. The same provision, with cues such as an adjacent area for a wheelchair, or provision of accessible picnic tables, conveys those with additional

needs are welcome. It is these unspoken messages Prellwitz, Tamm and Lindqvist (2001) argue, are key in providing invitation, or deterrents, for use by those with physical impairments. This use of cues extends to way-finding; highlighted entrance points, pictograms and information signs promoting access for those with visual impairments. Mitchell and Burton's (2010) study investigated effects of environmental cues for older people with dementia. They reported that environmental cues were essential enabling participants to understand the use of buildings; thus highlighting their importance to all age groups, including children. Without additional environmental cues it is unlikely societal attitudes will alter to embrace a more positive attitude towards inclusive play (Merrells et al., 2017). Burke (2012b) found environmental cues influenced access to play parks, users' expectations being these are only for those with the ability to move freely. Burke further elaborated that the removal of physical barriers does not necessarily alter the societal attitudes discouraging children with disabilities and their families from enjoying play parks; thus additional approaches are required to resolve this.

Societal barriers are not limited to those with disabilities; adults' perception of risk and hazard affects the freedoms children have in accessing the built environment. Villanueva et al. (2016) identify concerns about traffic and strangers as the barriers which are most frequently identified as limiting children's access to the built environment including play parks. Parents actively opting for car transport to minimise risks presented to child pedestrians by road traffic (Waygood & Susilo, 2015. Although in the developed world Rothman et.al (2014) advise that incidence of injury has declined. Conversely Stark, Frühwirth, and Aschauer (2018) suggest that parents concern over risks associated with traffic and subsequent restriction of CIM have a detrimental impact as children have a lower awareness of road traffic. Expressed parental fear of strangers is demonstrated to affect CIM but mitigating this is acknowledged by Foster et.al (2014) as difficult as current understanding of the influences on parental attitudes is limited. These societal barriers are not created by children but are constructs of adults and are considered in the context of this literature review.

2.9 The influence of adults

All aspects of a child's life are in some way influenced or directed by adults; at home, school and increasingly during organised after-school activities or child care. Parental attitudes are primary in determining which opportunities for free play are open to children. Guldberg (2009) and Gill (2007) amongst others explain how the increase in adult-directed or facilitated activities is the result of parental concerns over children's safety, while Tovey (2007, p3) views this as 'play that is over managed and curtailed by overcautious adults'. There is a risk some children will, in the opinion of Guldberg (2009), take on and internalise these fears, however Gill (2007, p62) counters this, arguing whilst parents are 'conduits of risk aversion, they are not the source'. Parents have an awareness of their role in preparing children for adulthood, from this there will be a gradual transfer of responsibility within the parent-child relationship. Wallace, Pye, Nunney, and Maybanks (2009) support this position, stating an adult's role is to offer space, give time and allow freedom to try, complimenting Tovey's (2007, p54) view that children are both 'competent and capable', therefore able to take advantage of opportunities open to them.

The competence of children to actively participate in key decision-making varies dependent on age and development. Within families the level of involvement will differ, however outside of this unit the majority of decisions will be made by unrelated adults in positions of authority. The right to participate is enshrined in the United Nations Convention on the Rights of the Child (UN, 1989) however historically a paternalistic approach to decision-making by public bodies has been the norm for both adults and children. Within the UK field of healthcare this position has altered (Barnes, 1999) and active engagement with patients is embedded in the ethos of UK healthcare providers. This prompted a recognition of the need to involve children in aspects of their care and decision-making. Consultation with children has evolved, and now extends to educational facilities with the creation of school councils giving children a voice within schools (Pupil Voice Wales, n.d.).

Valentine and McKendrick (1997) highlight how public spaces within the built environment are designed for, and by, adults. This view is supported by Torres and

Lessard (2007) who note play parks are not designed by their end users. This situation is challenged by Prezza and Pacilli (2007, p166) who believe, due to children's 'limited independent mobility', the design of the urban environment (and play parks) should focus on meeting children's needs. This because, unlike adults, they are 'anchored to the territory' (p166). The restriction of children's' independent mobility results in features such as play parks taking on a greater significance for children, this requiring recognition by urban planners. There is evidence that the need for children to be involved in decisions affecting the neighbourhoods they live in is gaining recognition. Information and advice are available which recommends children play active roles, this including 'Building spaces and places for children and young people' (Commissioner for Children and Young People Western Australia, 2011), and 'Creating Better Cities with Children and Youth' (Driskell 2001). Play England recommend consultation with the local community in 'Design for Play: A guide to creating successful play spaces', (Shackell et al., 2008 p26), but without specifying children as key contributors. This shows how, even for child-specific facilities, universal recognition of child consultation has yet to be achieved. Given this provision is designed for use by children it can only be surmised the intention is for children to be involved in the process. If a commissioner's view of their role is paternalistic, there is a risk consultation will be adult-focused. Consultation with children should avoid the situation identified by Yantzi, Young and McKeever (2010) in which play parks are considered adult-controlled spaces over which children generally have little influence.

The degree to which adults direct the lives of children is magnified for children with disabilities who may require support to access activities including play (Prellwitz and Skår, 2007). Missiuna and Pollock (1991) suggest this extended caring role, continuing beyond ages at which children usually achieve independence (McCann, Bull, & Winzenberg, 2012), can lead to parents, or carers, having higher levels of safety concerns resulting in additional restrictions. Greater dependence, coupled with concerns over safety, means the parent-child relationship may not facilitate skill acquisition in play, creating an ongoing reliance on adult support. Carer support may also impact on a child's one to one interactions with peers (Tamm and Skår, 2000; Schiariti et al. 2014). For example, leading to earlier adult interventions during

disagreements between two children than for a child without a disability, thus minimising opportunities to acquire skills including negotiation and diplomacy. Similarly, early interventions by carers to minimise perceived physical risk prevent children's attempts at more complex, riskier challenges, which is an essential preparation for risk assessment in adulthood. Parents, and other adults, influence play choices of children through play opportunities they provide in early years. In Missiuna and Pollock's (1991) opinion, where there is a necessary extension of the reciprocal parent-child relationship, play quality is affected, as parental views and expectations influence activities they facilitate. Placing this within the context of this investigation, a parent may not view play parks as suitable play locations if a child has, for example, a mobility impairment; an attitude which may then be adopted by the child, reinforcing the wider view of play parks as locations for the physically able.

Whilst not directly linked to play opportunities the additional care needs of some children require them to adhere to a routine. Aside from medication and home therapy plans which may be time-specific, routines are generally structured around the activities of adults. This is the case for all children, meal times an example, however children with disabilities may have formal carers, therapeutic interventions or medical appointments reducing time to play. As noted previously Howard and McInnes (2013) found the presence of adults can affect children's attitudes towards activities, no longer considering them play. Additionally, Floyd et al. (2011), observing outdoor play patterns, noted the presence of adults resulted in lower levels of acute physical activity. Not only do these findings support the promotion of independent play this poses questions as to the impact of adult researchers on investigations. Gray (2009) advises researchers to consider the impact of overt observation as participants may alter their behaviours. Covert observation potentially removes this issue, however the study by Floyd et al. found 'the presence of adults appears to inadvertently suppress park-based physical activity …, particularly among younger children' (Floyd et al., 2011 p265). This has some implications when using evidence and conclusions from observational studies. The presumption that the presence of passive or covert adult observers does not affect the data collected may be incorrect; therefore, conclusions from observational studies may not provide a true reflection of children's play. Observation is not a data collection

method utilised within this investigation therefore Floyd et al.'s (2011) finding does not have a direct impact; but requires consideration when reviewing evidence and conclusions of investigations included in this literature review.

2.10 Play Value

Play activities have meaning or value to those engaging in them, however the environment will, to some degree, facilitate or enhance the experience. This influence, in the context of this investigation, is termed 'play value'. Interpretation of play value at a personal level depends on an individuals' outlook and expectations regarding enjoyment. When applied to the environment, particularly play parks, play value refers to a variety of play choices, options for play or associated skills (see Appendix A for a summary of play equipment, associated skills and play value offered). This investigation considers play value in line with Woolley and Lowe (2013), allowing site evaluation through the range of play experiences it offers (social or solitary play, imaginative play and sensorimotor experiences including sliding, rotating or swinging), the environment within the play park, as well as fixed items of equipment.

Given the wide range of play options available, and that every individual's play preferences differ, it is not unsurprising researchers such as Greenfield (2003) and Burke (2009) note in their consultations with children, a diversity in elements highlighted as enjoyable. Children in the investigation by Jansson, Sundevall and Wales (2016) were in concurrence with this interpretation, describing play parks as 'good' if they had a wide selection of equipment, offered challenges, or were considered 'unique'. Interesting and varied experiences are not always achieved, Woolley (2007) highlighting her concerns about play park provision describing their homogenous designs as Kit, Fence, Carpet (KFC) provision. The subjective nature of these reflections is mirrored in adult's recall of play experiences. Sandberg (2001) compared aspects including place, people, physical play and risk during childhood through the importance allocated by adults when recalling their play at different ages. The value and importance placed on these varied between age brackets, possibly reflecting developmental stages as children gain independence and autonomy in play. The results of Sandberg's investigation highlighted that as adults move further away from

childhood they place different values on the aspects of play and place considered. Key in this was that younger participants placed a higher value on the places play was located in, older adults focusing on the type of play. In the context of commissioning play parks, this recall and interpretation of play value may impact on decision-making and design where children and young people are not actively consulted.

2.11 Challenge and risk

In play parks challenge and risk are require consideration, there is a need to offer play opportunities which giving different physical and mental challenges as this engages children maintaining their interest in the play location. Whilst challenge can be viewed as the opportunity to test one's skill and knowledge to achieve this there must be an element of risk introduced to achieve this. Supporting children to participate in risky play the publication Managing Risk in Play Provision: Implementation guide advises 'children both want and need to have challenging play experiences that involve a degree of risk' (Ball, Gill & Spiegal, 2012). This publication provides definitions which clarify how 'risk' differs from 'hazard', risk defined as the probability of an adverse outcome and hazard referring to potential sources of harm. It also advises that

> 'Good risks and hazards are acceptable and hold few surprises.
> Bad risks offer no obvious developmental or other benefits.'
> (Ball, Gill & Spiegal, 2012. p29).

Play parks are required to provide a balance between challenge and risk. Recognising the need to ensure play provision supports risk taking the Health and Safety Executive (HSE) and the Play Safety forum released a joint statement to support providers in their decision-making. This advises

> When planning and providing play opportunities, the goal is not to eliminate risk, but to weigh up the risks and benefits. No child will learn about risk if they are wrapped in cotton wool' (HSE, 2012).

Children require challenges in life and the play park is an appropriate location to engage in risky play. Meeting this need requires those responsible for play park provision to manage and minimise risk, removing hazards without creating facilities which, whilst safe, are perceived as tame and boring by children.

Children, challenge and risk

An advantage of play in outdoor settings is the potential to attempt challenges, including tests of physical ability. For older children these opportunities are with reduced adult supervision thus reducing cautionary oversight. Life involves risk, as an adult one must assess which risks are worth taking. As with most skills this is only achieved through trial and error. In childhood risks taken are cocooned in the knowledge, in most instances, decisions made are balanced by adults. This either through direct intervention, or indirectly, such as in the selection of equipment or play surface installed in play parks. The study by Lavrysen et al. (2017) demonstrated how the introduction of risky-play activities in an educational setting improved both risk perception and competence in young children. Kvalnes (2017) advising these 'risky scenarios' have a deferred benefit in later life by providing a grounding for managing risk.

Threading through literature and current discussions on outdoor play, is the impact of safety concerns which emerged in the 1970's. The response to this was, an over-reaction (Gill, 2007; Tovey, 2007; Guldberg, 2009), this reflecting a growing consensus. Tovey (2007, p97) recalls childhood memories of challenges which were 'on the borderline of safe and unsafe' to which, when they were perceived to be 'a little too safe', were varied to re-introduce the element of challenge. Utilising the principles of universal design within play parks will reduce risk, the inbuilt margin of error reduces the impact of children's attempts to master new and greater challenges (Ayataç & Pola, 2016). Opportunities to take risks, and the ability to test out skills, are benefits of play parks noted by children interviewed by Prellwitz and Skår (2007), these children viewing play parks as environments in which they expected to challenge themselves. Gill (2007) suggests this expectation, and the innate need to introduce challenge, is reflected in the increasing provision of skate parks and the popularity of activities such as Freerunning (Parkour). This need to experience risk is not restricted to those who take part in these and other urban sports. Metin (2003) and Baylina Ferré, Ortiz Guitart, and Prats Ferret (2006) found children, whatever their ability, look for activities providing challenges. How risk is perceived differs between adults and children, and Pain (2004) associates a child's view of risk as exciting, something to be sought out. Metin (2003) proposes if

children actively seek challenge and risk then play parks, as locations children associate with, should be designed to provide these experiences. This does not appear to be the case; Little, Wyver and Gibson (2011), Veitch, Salmon and Ball (2007), Solomon (2005), Frost (2010) and Gill (2007) are of the opinion modern play parks do not offer suitable opportunities. This standpoint supported in Little, Wyver and Gibson's (2011) discussions with children. A concern arising from this is, with insufficient challenging opportunities, children will seek out the stimulus they require elsewhere, placing themselves at greater risk (Little, Wyver and Gibson, 2011; Spiegal, Gill, Harbottle, and Ball, 2014). Not all risks associated with play are physical; imaginative play provides the opportunity to explore different scenarios and concepts. O'Connor et al. (2017) observed children exploring themes including destruction, war and gangs during play describing this as 'cognitive and emotional experimentation with risk' (p6474).

Understandably parent's views on risk differ from those of children, and rightly so. It is a parent's role to limit children's exposure to danger. Parents are required to balance their awareness of risks and hazards with the need to promote 'fearlessness' in their children (Niehues, 2013). A later investigation noted parents of children with disabilities actively sought to promote resilience in their children by introducing occupations with an element of uncertainty (Niehues, 2016). Research has shown the reduction of children's independent mobility (Torres and Lessard, 2007), and subsequently access to outdoor play, is often due to parental concerns including crime (Clements 2004), poorly maintained equipment, bullying, stranger danger (Little, Wyver and Gibson, 2011) and road traffic (Gill, 2007; Shaw et al., 2015.). The influence of this increase in concern and resulting risk reduction approaches were investigated by Valentine and McKendrick (1997). Parents in their study expressing dissatisfaction over public amenities therefore relocating outdoor play into private spaces. There has been debate over how realistic parental concerns are. Tonight (ITV Studios, 2014) commissioned a survey of 2000 parents finding an over-estimation of incidence of violent crimes and road traffic accidents, supporting the hypothesis the fear of risk is a powerful influence on parental decision-making. Whilst, for the majority, risks are lower than supposed, this is not a universal situation, some fears are realistic. In some deprived neighbourhoods (Prezza and Pacilli, 2007) and inner-city locations (Weir, Etelson and Brand, 2006) adult

supervision of outdoor play is essential to ensure safety because of high crime levels and exposure to drug taking or dealing. The alteration in attitude towards children's play cannot be attributed to one factor. Indeed, some statistics, such as the incidence of child pedestrian accidents, bear close scrutiny. Gill (2007) advises the marked reduction in childhood injuries should be considered in the wider context, as fewer children play outside their gardens risks from traffic are reduced.

Modern life has evolved; new technologies giving increased options for home-based entertainment, new play opportunities including indoor play areas, and more after-school activities and child-care. These reflect societal changes including a consumer-focused lifestyle, but also government policies designed to support working parents (Gov.UK, 2014). This inward-looking lifestyle leaves some assessing risk using information through print and digital media. We receive rapid updates on incidents, and wider exposure to international events, but lack knowledge of, and relationships in, local neighbourhoods. Reporting of incidents, including the intervention of child protection services in Maryland in 2015, following children's unsupervised play at a local park (Wallace, 2015), sparked debate, but also provides an additional fear – by not supervising children, parents can be accused of neglect. Gill (2007) suggests this isolating lifestyle results in a view of the world as a hostile, unsupportive environment, where neighbourliness has declined leaving parents unwilling to expose children to the high level of risk they believe exists. To counter this, Frost (2010) calls for a 'contemporary child-saving movement' to redress the balance for all aspects of outdoor play, including the provision of balanced risk and challenge.

Risk management in play parks

Levels of risk are also a concern for those with responsibility for maintaining or providing play parks. The need to manage risk, meet expectations of parents, and to provide play equipment has not always taken into consideration the play needs of children, especially as accidents can result in litigation and claims for damages. The level of concern in the UK may not be based on facts, with Gill (2015) reporting the incidence of claims remains stable, and Ball, Gill and Spiegal (2012) advising the estimated non-fatal accident rate for play park activities is substantially lower than for

most leisure sports. This perceived fear of litigation, within a culture of blame, may reflect the introduction of safety standards. Guldberg (2009) cites politicians and policymakers as key influences leading to a focus on risk aversion. Whilst safety standards have reduced the number of incidents (Norton, Nixon & Sibert 2004), those responsible for play parks continue to be risk aware given their duty of care. It may even be the reduction in the number of reported incidences creates an environment where incidents, such as the death of a five-year-old in London in July 2015 (Addley, 2015), result in calls for even tighter regulation due to their rarity.

Internationally safety standards have been introduced to standardize provision, minimize risk, and reflect best practice. Examples of these are EN1176 (Playground Equipment Standard) for Europe including the UK; North American standard F1487 produced by the American Society for Testing and Materials (ATSM), and Australia and New Zealand have adopted standards based on the European model: AS 4685 Parts 1 to 6 (Standards Australia, 2014). Given the conflicting need to experience risk and to consider acceptable levels of risk, it is not unsurprising that changes to the standards, and in some cases, the standards themselves, are the subject of debate. Introduction of impact attenuating surfaces reduced the number and severity of head injuries, but not the frequency of arm fractures, a more common injury (Spiegal, 2015). The proposed revision in 2015/6 of the relevant American standard intended to further reduce the risk of head injury has sparked debate. This discussion includes the relevance of the supporting evidence (especially where research, such as that by Shorten (1998), is sponsored by product suppliers); the impact of new standards on play park providers; and the focus on risk reduction rather the than promotion of healthy active lifestyles (Ball 2015; Spiegal 2015; Gill 2015). Increasing awareness of responsibility has, in the opinion of Spiegal, Gill, Harbottle & Ball (2014), resulted in the adherence to safety standards taking precedence over designing for play. Additionally, they advise the UK adoption of European safety standards provides a framework for safe provision, but compliance does not provide immunity from obligations. These obligations include responsibilities under the Equality Act (2010), including making reasonable adjustments which ensure access to leisure facilities.

Risk management in play parks is not restricted to the selection and maintenance of equipment. Preventing access by dogs is accepted practice; more recent proposals include proposals to ban smoking in play parks (Campbell, 2016). Both can be viewed as contributing to the health promotion agenda. Less clear is the prevention of adults without children from accessing play parks. Harrold (2016), reporting on a planned introduction of legislation preventing unaccompanied adults in play parks in Beverly Hills, advised this is already common practice in New York, Miami Beach and Hollywood. A similar approach was adopted in London for the Diana Memorial Playground in Kensington Gardens. This play park is managed by the Royal Parks whose website advises 'To ensure safety and security of children, only adults supervising children up to the age of 12 will be admitted.' (The Royal Parks, 2018). Internet searches and literature reviews seeking advice on risk management specific to UK play parks provide numerous sources of detailed information, such as by Ball, Gill and Spiegal (2012), and the Royal Society for the Prevention of Accidents (2015). It is telling that a similar search for advice in relation to meeting accessibility obligations for play parks under the Equality Act (2010) did not achieve similar results, only identifying oblique references to responsibilities which should be met.

2.12 The built environment

The built environment is the term used to describe the way in which community neighbourhoods are designed in regard to physical characteristics: the type and number of buildings, travel routes to and through areas, as well as amenities and green spaces (Carroll-Scott et al, 2013). Handy, Boarnet, Reid Ewing and Killingsworth (2002) include in their definition human activity occurring within this setting. Each element of an environment is interconnected, meaning no space can be truly neutral (Tovey, 2007) and as a result, affects how spaces are viewed and used. In simplistic form this can be through the creation of zones; areas having a clearly defined purpose. Within shopping complexes line-markings in designated areas indicate car parking provision, seats in a concourse places to sit, wait and socialise; whereas shops are for purchasing goods. These implicit cues are read by users who, in the main, match actions to cues. The meanings behind these cues are learned through observation or direct instruction.

Children learn the presence of fixed play equipment indicates areas in which they are welcome to play in. This however is not always the case, a shop may display swings or slides, here a child learns to read wider cues, modifying their behaviour accordingly. Alongside this adaptation; matching actions to environments, there are other ways in which the built environment affects individuals within it. The potential impact of the introduction of physical cues in the built environment has been demonstrated through studies monitoring increased use of green spaces following the installation of cues, typically signage (Tester & Baker, 2009), although findings are not consistent across all investigations with this focus. Mowen et al. (2013) and Cohen et al. (2009) finding that the response to the introduction of physical cues varied and for Mowen et al. in some locations park use reduced. In their systematic review of the literature Roberts et al. (2018) conclude that overall 'this indicates a prompt or cue may be an effective intervention within this context, however the evidence is limited'. (The effect on behaviours of placement or orientation of items in the built environment (affordance) is considered later in this section.)

The industrialised society created in the UK in the mid-nineteenth century resulted in rapid increases in town and city dwellers living close to factories; industrialisation contributing to high levels of air pollution. The housing need of this workforce resulted in the construction of neighbourhoods consisting of poor-quality housing. Advances in medicine, and investment in housing schemes by pioneers including Sir Titus Salt (Saltaire), the Cadbury family (Bournville) and Lever Brothers (Port Sunlight), demonstrated the creation of good quality living conditions resulted in improved health (The British Library, n.d.). The impact of the built environment on those living in it became recognised, focusing on aspects such as overcrowding, poor air quality and sub-standard housing. In this area of study developments include how design influences health-related behaviours of those interacting with it. Societal changes, including increased car ownership, contribute to rising levels of obesity, diabetes and other conditions linked to sedentary lifestyles for both adults (Tremblay, Colley, Saunders, Healy & Owen, 2010) and children (Dyment and Bell 2007; Roemmich, Beeler and Johnson, 2014). To address these issues, health promotion has focused on healthy, active lifestyles, good diet, and reduction in levels of salt and sugar in processed foods

(World Health Organisation, 2015). This approach recognises change should be in conjunction with other factors, including the built environment. Accepting it is possible to influence health, through manipulation of the built environment, appreciates these are set within an interlinked system. Lee (1970, p307) describes this system as one which evolves 'from the circular process of man imposing organization on physical structures and physical structures imposing organization on man'. He notes the need to impose change, thus altering behaviours, is a feature of social living, examples including the education system, local and national politics and even the family unit. Within this approach the Social-ecological physical activity model recognises the influence on behaviours of multiple factors. Figure 2.1, adapted from Sallis, et al. (2006) shows how each of the interlinked factors, from individual to national policy decisions, influences interaction with, and creation of, the built environment.

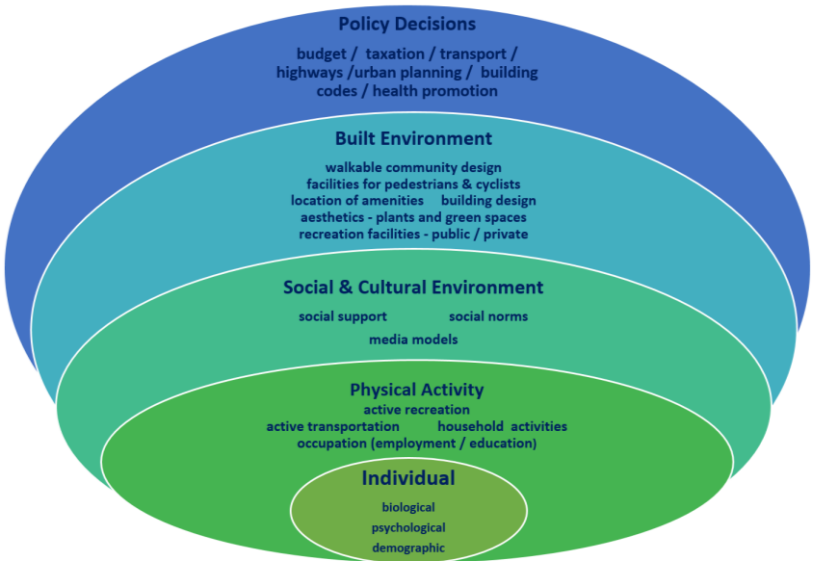


Figure 2.1 Ecological Model of the built environment
Source: Adapted from Sallis et al. (2006)

How has this increased understanding manifested itself? An example is the concept of Lifetime Neighbourhoods (Department for Communities and Local Government, 2011). This overarching approach involves public and private sectors, community and voluntary organisations working with communities to achieve changes, enabling all users to access essential facilities and connect with other people. Within this is an aim to create walkable environments, containing accessible routes considering the needs of users of all abilities, thus having 'significant implications for sociability, health and well-

being' (Department for Communities and Local Government, 2011, p10). In conjunction with this is the development of Home Zones and Shared Spaces, aiming to re-balance the relationship between road traffic and pedestrians (Homezones.org, n.d.). Whilst much of the research focuses on the interaction between adults and the built environment, children are a key consideration within both Lifetime Neighbourhoods and Home Zones. The health benefits of improved access within a locality are the same for children as for adults, and will impact on children's activity levels (Veitch, Salmon and Ball, 2007). Good design sustains 'the possibility of creation and interaction' (Baylina Ferré, Ortiz Guitart, and Prats Ferret 2006), as well as creating play opportunities (Barron 2013). Ensuring children are active and frequent users of public spaces minimises the concern of Oliver et al. (2011) that the absence of children decreases social harmony.

Play parks as part of the built environment

> *'meeting places for families and children should constitute the spatial heart of a local community… a space where children challenge their physical and mental capabilities, creating different forms of free play…It should also stimulate them to undertake physical activity'* Kostrzewska (2017, p4)

Children do not view the world around them as one full of objects. Tovey (2007) advises children attach meanings to places which have value for them. These key places include home and school, but, for most children, also include spaces and places where they choose to play including play parks. These are a familiar feature of the developed world; however, each country has individual arrangements for funding the creation and maintenance of play parks. This study focuses on the creation and refurbishment of play parks within England, as within the UK, each of the home nations has a different approach to play provision.

England, unlike Wales and Scotland does not, as of early 2018, have a play policy. Play England is a charitable organisation campaigning at local and national levels for children to have opportunities to play, working alongside partners to improve access to, and quality of, play provision, and providing training opportunities (Play England, 2014). It is not directly involved in commissioning or refurbishment of play parks. In England this

responsibility lies with the local parish, district, town, borough or city council. The provision and maintenance of play park equipment is the responsibility of the relevant council and an internet search identified from press reports that the impetus behind the creation of play parks commonly results from local resident's requests. At a parish level this response is likely to be supported by volunteers, such as the IDEAS group in Lincolnshire (North Kesteven District Council, 2014), whilst a city council may have sufficient funds available to contract a management firm to oversee the process (Oxford City Council, 2013). Local focus maintains consideration of provision at a neighbourhood level, however it has potential to conflict with other decisions, such as transport links, decided at higher governmental levels. In considering the location and size of a play park advice and information is provided through publications including Design for Play (Shackell et al., 2008) and from Fields in Trust (FIT) who have updated previous guidance, the 'Six Acre Standard' to include information on both size and play experiences supported moving away from the equipment count previously adopted (FIT, 2015). This new approach in theory enabling standards to be net without items of play equipment (Soft surfaces, 2011).

How a play park is created in part influences where it is situated within the built environment. Özcan and Çakır Sümer (2014) describe play parks as a bridge between urban life and the natural world, and Prellwitz, Tamm and Lindqvist (2001, p57) as 'significant outdoor public environments built specially for [children's] different needs'. This view concurs with the value placed on play parks by children in the investigation by Prellwitz and Skår (2007, p151); children describing them as 'a special place they did not want to be without'. In line with the above, within Prellwitz and Skår's investigation play parks were defined as locations children could describe with accuracy even if they did not use them, thus underlining their importance within children's geographies. This study, as did Yantzi, Young and McKeever's study (2010), also found children view play parks as providing opportunities to spend time with friends away from adult supervision. The approach in some Mediterranean countries is to place play parks centrally on well-used routes (Baylina Ferré, Ortiz Guitart, & Prats Ferret, 2006). Advice from Shackell, Butler, Doyle and Ball (2008, p17) is that they should be close to through-routes but, as children often prefer to play away from adult oversight, these play spaces

should be ‘pleasantly secluded’ although not isolated. Seeking a children’s perspective Jansson, Sundevall and Wales (2016, p235) found a preference for play parks to be co-located ‘with other functions and green space’. The placement of play parks within the built environment in an urban context, the proximity to housing is a geographic aspect which will influence the patterns of play park use (Czalczynska-Podolska, 2014). In the UK advice is available regarding size, equipment types, and location by national organisations including Fields in Trust (www.fieldsintrust.org) and Natural England (Shackell et al. 2008). Regional and local reviews, and advice on open space provision, identify minimum standards and the areas in which new provision is required, this varying across England.

Reiterating the definition of play parks from the introduction to this thesis: local play facilities with fixed play equipment, this is further developed by Prellwitz, Tamm and Lindqvist (2001) who describe two types of design: traditional play parks with slides, climbing frames and swings, and contemporary play parks with aesthetic designs and linked modular units. Structures differ between sites, each having an individual design reflecting space, funding available, play park age, and the environment in which it sits. Shackell, Butler, Doyle & Ball (2008) advise of the need to create a play park which enhances its location, and that successful designs improve poorer environments. Reflecting settings may result in rural play parks utilising natural contours of the land, including natural materials including wood and rock; these features familiar to local children. This type of design may not be as appropriate for children used to urban settings. This is not to say urban play parks should comprise of hard-landscaping and metal structures. Play parks offer opportunities to add elements to soften landscapes, and provide access to natural features. Concern over the lack of contact with natural elements and how this affects urban or city dwelling children was termed ‘nature deficit disorder’ by Richard Louv (Dickinson 2013). Guldberg (2009) questions the level of impact on urban children, arguing streetscapes offer varied opportunities to play, meeting the need for primary experiences (sight, hearing, smell etc.) as effectively as rural play settings.

A broader consideration of play park design moves from the items placed in play parks to the relationships these have with each other and the setting. This relationship

enables and facilitates actions, or 'affordances'. For Jansson (2010) this is key in understanding how children's use of space differs from that of adults, their focus on the functionality of a space rather than its form. Withagen, de Poel, Araujo, & Pepping, (2012) developed Gibson's Theory of Affordances proposing affordances can be designed into environments as 'invitations'. Within play parks this invitation would be to move freely between items of equipment, and the understanding of how to use and engage with these. Hussein (2017) considered the 10 environmental categories described by Heft (1998) which support affordances. These being flat, relatively smooth surfaces and slopes, graspable objects, attached rigid and non-rigid objects, climbable features, apertures, shelters, mouldable materials and water. Also considered by Hussein were Kytta's categories which mirror those of Heft, with an additional sociality category (Kytta, 2002). Hussein then combined these with additional areas: sensory stimulations, physical mobility and social skill (Hussein, 2009). Hendricks (2001) highlights the need for designers to understand how play parks are used, Woolley (2013) reiterating this, advising the Kit Fence, Carpet approach to the design of UK play parks (Woolley, 2007) limits play for all children, but especially those with disabilities.

Inclusive play park design

Play parks are designed to provide appropriate dedicated spaces for children, encouraging and facilitating play. The Office for National Statistics (2015) estimates in 2014 the UK population grew to 64.6 million, 19% under the age of 15, equating to approximately 12.3 million children. The Disabled Living Foundation (2015) advises there are 770,000 (1:20) children under the age of 16 living with a disability. Carvel (2009) reported approximately 14 million people with disabilities had a caring role as a parent, this equating to over one million households with at least one disabled parent. Given these figures reflect only permanent disability, it is not unreasonable to expect they do not fully illustrate the situation. This population is entitled to expect access to a wide range of facilities; including play parks. Given the formulaic approach to play park design previously outlined; offering a limited play palette, it is unlikely the needs of less-able users are fully considered (Siu, Wong & Lam, 2017). This is in line with the opinion of Burke (2012b, p92) who states conventional play parks are 'unlikely to be inclusive', some aspects promoting their use and others creating barriers.

Design of spaces impacts on how they are used, promotion of inclusion is one of many design aspects requiring consideration (Keys, 2017). The importance of design was recognised by children who were of the opinion this was key in creating accessible sites in the study by Prellwitz and Skår (2007). For Fernelius (2017) there is a requirement for play park designers to be creative in the formation of places with sufficient challenge and risk for all abilities. Prellwitz and Skår (2007, p145) offer a definition of usability as an approach which 'takes into account users' subjective evaluation of effectiveness, efficiency and satisfaction when performing an activity'. This recognising the need not only to consider the aesthetic appeal of a play park but also the experiences of all those using it.

Play equipment providers have recognised the need to consider accessibility within play park design and offer both advice and specialized equipment (Playdale 2015; Kompan n.d.). The choice of equipment and floor surface are identified as key influencing factors (Perry et al., 2017; Fernelius, 2017; Horton,2017; Tamm and Skår, 2000). Respondents in the study by Prellwitz, Tamm and Lindqvist (2001) highlighted ramp provision as essential for inclusive play, this also an aspect considered key for inclusive design by Benham and Reginald (2016). The inclusion of passive, floor-based equipment such as panels also offers inclusive play opportunities (Benham and Reginald, 2016). Where elevated play structures are installed Perry et al. (2017) advise the links between elements must include transfer systems supporting those with limited mobility.

This is not to say specialised equipment or design elements are essential prerequisites to successful designs. Prellwitz, Tamm and Lindqvist (2001) advise, although the principles of universal design should be considered, designs completed without reference to usability may result in play parks with a high degree of accessibility. Indeed, Burke (2012b) suggests the provision of specialized equipment may even result in, or reinforce, segregation. For both specialised or standard provision understanding of inclusive or accessible design is required; a lack of knowledge identified by (Woolley 2013; Prellwitz & Tamm 1999) as affecting provision. The development of themed play parks was noted by Benham and Reginald (2016) as promoting cognitive and imaginative play types which, whilst not specialist inclusive provision, facilitates inclusive play. An alternative addition to play parks with the potential to enable

inclusive play are items of equipment which promote sensory stimulation (Perry et al., 2018). Recognising a fully inclusive play park may not be an achievable aim, Fernelius (2017) advises that any inclusive equipment will only match the abilities of a proportion of users; as a result, some users are excluded through an aspect of a play park's design.

2.13 Inclusion and participation

Inclusion is, according to the Concise English Dictionary (Oxford Dictionaries, 2006), the action or state of including or of being included (p720), and participation (p1043) as being involved or taking part. In the built environment context, recognition of how design excludes some members of society has evolved, considering concepts of universal design, inclusive design or design for all. These approaches widen focus in all areas of design, from aesthetics and form, including consideration of 'how well the designed environment performs in relation to people's needs' (Imrie, 2014). The Centre for Universal Design (1997) embodied this basic premise within seven principles (Table 2.5), these relating to users of all abilities and body types. This approach has not been fully incorporated into guidance or legislation, approaches interpreting these principles with a focus on the needs of those with disabilities. Examples include the Americans with Disabilities Act (1990) and Part M of the Building Regulations in the UK (Imrie, 2014). Imrie (2014, p291) recognises the growth of Universal Design but notes its failure to alter practice sufficiently and questions the effectiveness of this 'technical approach to what are, predominantly, social and cultural issues'.

Although at present approaches to creating an inclusive environment are not wholly successful, a key feature is the concept of involving end users in the design process. This moving away from paternalistic approaches where designers' knowledge and values are considered more relevant than those of end users (Heylighen & Bianchin, 2013). Difficulty in engaging with end users is recognised by Newell, Gregor, Morgan, Pullin and McCauley (2011), as is the challenge presented when seeking to involve a representative range of participants (Wilkinson & De Angeli, 2014); children with disabilities participating less frequently in community activities than non-disabled peers (Bedell et al. 2013).

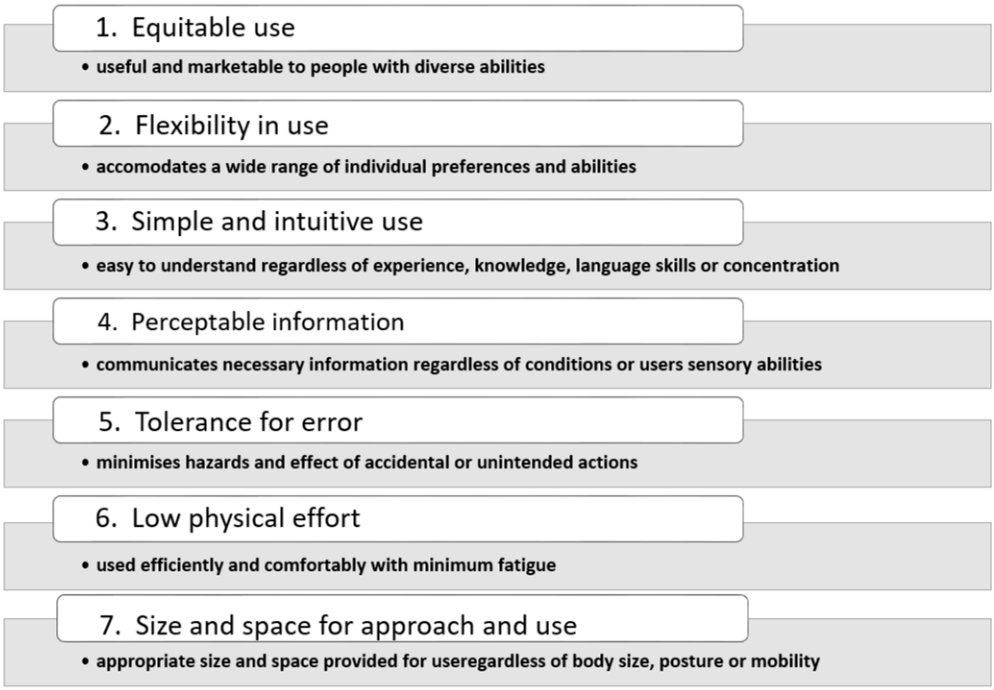


Table 2.5 Seven principles of Universal Design
Source: Adapted from the Centre for Universal Design (1997)

While a design process may result in an inclusive design, true inclusion is, in the opinion of this researcher, one with the representative participation of all intended end users. Given the low level of consultation during the design of the built environment, it is not unexpected that minority groups feel excluded from the process (Imrie & Kumar, 1998). Currently children have a minor role in an adult-focused society, therefore are not only at risk of exclusion from activities, but also from decision-making which impacts on their daily lives. Driskell (2001) advises

> *'adults run the world. They hold the power to determine what changes should happen, when they should happen, and where they should happen.'* (Driskell, 2001, p37).

This position of authority is recognised and challenged by the United Nations Convention on the Rights of the Child (UN, 1989). This recommends that signatories create environments allowing children and young people to take an active part in social and political decision-making. In recognition of their role and ability to be active participants, Burke (2012a) proposes children are always members of society, and childhood should not simply be viewed as preparation for adulthood. In the UK the Social Model of Disability is widely accepted as the foundation for achieving equality for

those currently excluded due to impairments. This distinguishing between social exclusion and impairment; defining disability as a social construct, society having a moral obligation to address and remove social barriers (Shakespeare, 2013). Children with disabilities are therefore at greater risk of exclusion as members of two minority groups; children and those with disabilities.

Hodge and Runswick-Cole (2013) are of the opinion inclusion (or exclusion) in a play park setting can be influenced by providers view of play parks as a 'mainstream' activity setting. This one for use by typically developing children; those requiring additional support needing specialist facilities. They warn simply removing physical barriers is insufficient to ensure social inclusion. Whilst aiming to achieve inclusion, the preferences of individuals require consideration. Georgeson, Porter, Daniels and Feiler (2014) remind us some may prefer to be treated in a different manner if this enables them to participate, whilst others avoid this approach feeling it highlights impairment. When creating any community facility there is a need to consider the wishes of those it is being created for as well as the preferences and priorities of those it is created by. This should be wide-ranging encompassing all ages and abilities, including children with disabilities. Prior to considering the literature specific to this aspect a wider review of aspects affecting and supporting decision-making is required including the scope of consultations and the degree members of a community participate in this process.

Decision-making, consultation and participation

In creating any facility decisions on what should be selected or excluded are required. Whilst in the context of play parks these decisions may not appear to carry great weight, each does contribute to the extent by which a play park will achieve planned levels of accessibility, usability and play value. Decisions result from choice (March, 1982; Khouri, 2016); these are deliberate selections, based on an awareness of alternatives and an appreciation of potential outcomes. The selection of an option is guided by the pre-existing preferences and knowledge of those involved; a value-based approach which is influenced by an individuals' life experiences. To a point this process limited by the number of alternatives which are considered or recognised. Within the context of this investigation this approach to choice or decision-making suggests that

effective equipment selection by those responsible for a play park could therefore be inhibited through personal experience, preference or the reliance on a single equipment provider.

Decisions within groups do not rely solely on the selection of one option over another, thus they require discussions to support decision-making by those involved. Approaches to decision-making are 'well established topics of interest in many fields including management, psychology [and] sociology' (Shepherd, Williams & Patzelt, 2015). The use of idea generation through brainstorming and similar techniques has been widely investigated (Korde & Paulus, 2017; Shroyer et al., 2018; Seeber et al, 2017) across different fields however for this investigation the approach taken to select a preferred action, i.e. to make a choice, is of greater interest due to the relatively limited options available when selecting equipment. Patterson, Grenny, McMillan and Switzler (2011) identify four approaches to decision-making: command (an individual takes responsibility without the involvement of others), consultation (actively seeking input), voting (following the discussion of options) and consensus (decisions made through discussions until all are in agreement). The efficacy of the adoption of a group decision-making structure is recognised by Lunenburg (2011) who notes benefits including a wider knowledge and expertise base, the ability to consider a greater number of alternatives and the achievement of consensus. The dynamics within groups do however result in challenges which affect the efficacy of the process which can be addressed through the adoption of methods including brainstorming / brainwriting, polling, nominal group technique and dialectical enquiry (Lunenburg, 2011; Perez et al., 2014).

Where a decision to act or to make a recommendation rests with an individual the benefits of knowledge and experience of others are not necessarily available, individuals drawing on their own experience (Klein, 2017). There is however support for decision-making which includes the identification of prescriptive steps which can be utilised such as the GOPHER approach (Mann et al., 1991) and DECIDE (Guo, 2008). These guide the identification of issues and alternatives and support the selection of a response or action. The experience and knowledge of both groups and individuals, whilst valuable, does not necessarily reflect the wishes or preferences for those on

whose behalf decisions are being made. Engaging with communities harnesses their intimate knowledge of their local area recognising how individuals experiences differ (Rydin & Natarajan, 2016).

The advantages of this level of consultation for groups leading projects include increased understanding of a local area and its history (Wates, 2014). For participants in consultations identified benefits include greater social cohesion and the creation of a shared legacy (Norton and Hughes, 2018). Norton and Hughes advise that effective consultation or community engagement is not a short-term intervention, but one which benefits through involvement over the long-term, building relationships and reducing the potential for conflict. Through active involvement communities can be empowered, promoting confidence, co-operation and collective working (Wates, 2014). How consultations are completed, and which groups are invited to participate will vary between communities (Wates, 2014). The depth of engagement with communities varies Frewer and Rowe (2005) identify these as *communication* (one-way information sharing where communities are passive observers rather than active participants), *consultation,* where opinions are sought, and *participation*. This latter category involving communities with decision-making through presence within committees or advisory groups. These levels of engagement appearing similar in approach to some of the decision-making approaches described by Patterson, Grenny, McMillan and Switzler (2011).

In considering community involvement in consultation the right for children to be consulted (UN, 1989) is not reflected in literature relating to the built environment. It is unclear whether authors such as Norton and Hughes (2018), Evans (2018) and Hernandez, Pallagst, and Hammer (2018) when considering the role of community consultation intend consultation across all age groups is completed or if consultation with children is not an option considered. In supporting community involvement and participation in projects linked to urban green spaces Hernandez, Pallagst, and Hammer (2018, p8) refer to engaging with community groups and residents through 'discussion groups, consultations, artistic events, sport activities, ethnic minority background activities, leisure programs, environmental and horticultural activities, community gardens, organic food growing projects, etc'. These activities with the potential to

facilitate direct consultation with children but with no direct reference to involving children.

Consultation with communities or individuals provides information which can support decision-making but does not necessarily ensure that the preferences or opinions expressed are reflected in actions or provisions. Hart (1992) advises that consultation differs from participation. Consultation the process by which opinions are sought and participation one in which the consultation process actively engages with the relevant people enabling their involvement in both the process and the resultant decision-making. Hart (1992) developed Arnstein's (1969) metaphor of a ladder to delineate the different degrees of children's participation in projects, this also effective as a descriptor for participation of other minority groups including those with disabilities. Utilising this metaphor, illustrated in Figure 2.2, highlights the different degrees of participation identified.

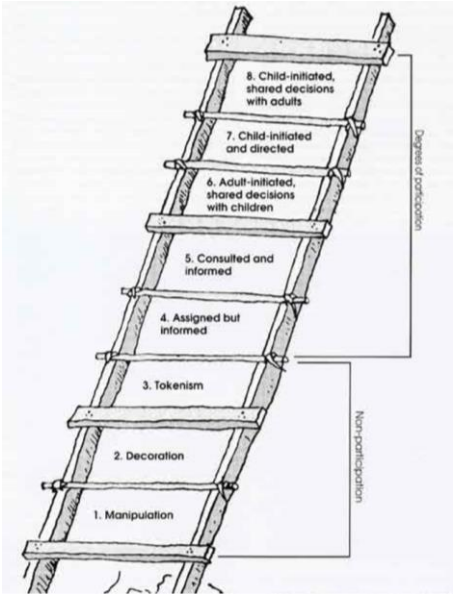


Figure 2.2 Hart's Ladder of Participation

Not only should inclusion in play park activities be open to all children they should, as key users, participate in decision-making during the creation of these facilities. Children's participation in decision making is promoted by the United Nations in Agenda 21 (United Nations, 1999) and in the past three decades, consultation with children has become more commonplace (Torres and Lessard, 2007). In the context of the built environment, Torres and Lessard (2007, p72) see consultation with children as 'not only

feasible but also valuable'. However simply providing opportunities to voice an opinion is insufficient (Georgeson et al., 2014), as views need to be acted on to make consultation relevant. Driskell (2001, p35) advises the benefits of consultation go beyond the immediate feeling consultees have had influence, this including benefits for other community members, planners and policy makers.

Benefits for children and young people	Benefits for members of the community	Benefits for planners and policy makers
Participation in a new and exciting activity	Interaction with young people in a positive context overcoming intergenerational misconceptions	Increased understanding of the needs and issues of the community
New ways of viewing and engaging with their community	Appreciation of young people's view of their community, their world and themselves	Improved planning and development decisions
Learning about democracy and tolerance	Identification of how the quality of life for young people can be improved	Education of the community in the complexities of policy and development decision making
Creation of a new social network including community role models and resources	Stronger sense of community and pride of place	Implementation of the directives and spirit of UN Convention on the rights of the child at a local level
Development of skills and increase in knowledge	Appreciation of the ideas and contribution young people can make	Involvement of young people in sustainable development
Involvement in positive change in their community	Investment in the future of their community	Creation of child friendly environments
Development of sense of environmental stewardship and civic responsibility		
Development of confidence in their ability to achieve		
Strengthen self-esteem, pride and identity		

Table 2.6 Benefits of involvement of young people in community development
Source: Adapted from Driskell (2001)

Table 2.6 outlines how active engagement with consultation provides children and young people with opportunities to participate rather than remaining passive. Through their engagement with consultation activities learning about themselves as well as about processes, thus increases their sense of belonging to a community. Children and young people's involvement profits communities providing positive interactions and increased understanding across age groups which is an investment in the community to which they belong. For planners and policymakers, the involvement of children and young people supports the development of policies which reflect and appreciate local

opinions, increases the understanding of wider policy requirements and responsibilities, and supports the rights of children and young people to have a voice and influence within their community.

Decision-making and consultation advice for play park provision

For decision-making in the context of an organisation such as a local or parish council there are formal structures or processes in place. Individuals or committees having a formal role reviewing information and making recommendations resulting in a decision on next actions. Informal groups, those formed to achieve a specific task or goal, such as volunteers working towards creating a new play park, lack this structure and are not subject to the same checks and balances as those with a formal role subject to public scrutiny.

2.14 Group decision-making

In creating any facility decisions on what should be selected or excluded must be made. Where these are made in the context of an organisation such as a local or parish council there are formal structures or processes in place; individuals or committees having a formal role reviewing information and recommendations resulting in a decision on next actions.

Informal groups, those formed to achieve a specific task or goal, such as volunteers working towards creating a new play park, lack this structure and are not subject to the same checks and balances as those with a formal role subject to public scrutiny. They come together through common interest or purpose, this unofficial inception without the inherent structures to provide a process by which decisions are made or ratified. Whilst there is advice regarding who and how these groups should consult (Playcore 2010; Shackell et al., 2008) there are limited resources providing support and advice on how they should establish a structure or process for decision-making. In Planning for Play Hooker & Gill (2006) offer advice in relation to play partnerships which has relevance to all working groups; groups should be of a manageable size suggesting between 12 and 20, above this figure sub-groups are to be formed. The document also advises groups should create a strategy document and statement of purpose.

Additional advice offered in Design for Play: A guide to creating successful play spaces (Shackell, Butler, Doyle & Ball, 2008, p28), is that leadership and management are necessities for successful projects and commissioners need 'to harness the skill and expertise of others'. Who should be approached for this support is not outlined.

Design for Play highlights the importance of the commissioning role as this has the 'opportunity to inspire and excite children' (Shackell et al., 2008, p35) but also the responsibility to manage the budget, the programme of works and design brief. The implication of this document is this will be an identified individual from a 'parent' organisation. This also has relevance for informal groups, in that these aspects require identification and management as projects progress. Additional resources on group structure and roles can be found online provided by KaBoom.org (2018), an American not for profit organisation supporting communities in providing play parks. Additional information on group structure to promote inclusion is provided in documents such as the Inclusive Play Design Guide (Playworld Systems, 2013).

Groundwork East London (2005, p50) advises that when consulting with groups or individuals, consideration should be made of two aspects; their interest in the project and their 'degree of influence'. Groundwork East London advises that these two differ and the combination of these may have a marked impact on outcomes. Those with high interest / high influence likely to be active in a project; but this not always be positive involvement. These aspects can be viewed as a spectrum with those with low interest / low influence likely to be less engaged and peripheral to a project. This principle can also be applied to the dynamics of a volunteer group and their decision-making where individual members bring their personalities, interests and influences. The advice on proposed structures supports organisation, but once a group has been formed no advice has been identified on how they should consider and act on results of consultations and the information received.

2.15 Summary

This review of the literature confirmed the importance of play within children's development, in particular the importance of play in outdoor settings. This in itself is

insufficient to support the provision of play park facilities. Play parks are designed specifically to provide safe yet challenging play, therefore their design should enhance and promote play for children of all abilities. The literature review found through changing attitudes to, and patterns of, play outdoors, play for able-bodied children has altered, restricting opportunities for free play. The fears of parents are also reflected in the approach to design, removing opportunities to experience risk and challenge. Homogenous 'Kit, Fence, Carpet' provision failing to ensure children have safe environments for risky play. This has the potential to not only relocate play to environments with greater hazards, but also impacts on skill acquisition and risk management in adulthood.

Design of play parks lacks a clear foundation; advice is available however this does not fully reflect the diverse opportunities a well-designed play park can present. The lack of this foundation reduces awareness of these resources, and therefore the understanding of how to create a play park with play value for all users.

Regarding children with disabilities, provision for outdoor play remains limited with the principles of inclusive design and social inclusion failing to impact on provision. Lack of understanding of the different ways children approach play increases the barriers preventing universal access and enjoyment of play parks.

The influence of adults drives provision, design and management of play parks. The value of including children in decision-making in all areas affecting them is supported in the literature recognising their right to influence outcomes. Children are found to value play parks as a key location in their everyday, lives but are disconnected from the decision-making regarding these child-centred facilities.

A synthesis of the literature review identified the following themes:

- The importance of play, and play outdoors
- The benefits and disadvantages of play outdoors
- Accessibility of play parks
- Socialisation during play in play parks
- Challenge as an essential aspect of play in play parks

- Risks and hazards linked to play in play parks
- Play value (choice of play park equipment / play park design)
- Active involvement of children and young people in consultations

The breadth of these themes and the diverse disciplines shaping this literature which drew on the evidence from areas including Applied Arts, Natural Sciences, Medicine and Health demonstrates the complexity under-lying this everyday local provision. These themes alongside those identified from participant interviews provide the structure by which the results from this investigation are discussed highlighting the need for effective support and easily accessible information for those responsible for play park provision.

Chapter 3 Methodology

3.1 Introduction

This chapter outlines research methods and strategies which have relevance to this investigation, initially, as identified by Saunders et. al. (2009), outlining key aspects requiring consideration. Additionally, this chapter discusses reliability and validity and ethical considerations relevant to this investigation. The understanding of each of these concepts provides the researcher with the ability to structure an investigation ensuring that the data collected is relevant to the subject under investigation and that the methods utilised to analyse the data are appropriate. In considering the different research methods and strategies the researcher is then able to not only select, but to justify their methodological decision-making. The structure of the Research Onion devised by Saunders et al. (2009) providing an analogy by which each of these aspects are considered sequentially.

3.2 What is research?

Research is defined by the Concise English Dictionary (Oxford Dictionaries, 2006, p1222) as:

> '*The systematic investigation into, and study of, materials and sources in order to establish facts and reach new conclusions*.

Robson (2011, p3) differentiates between academic and real-world research. Academic research focuses on 'developing and extending an academic discipline', and real-world research considers issues which are 'practical, local, and grounded in a specific context' (Robson 2011, p4). This investigation is within the second, intending to investigate factors relating to the designs of local play parks regarding their accessibility, usability and play value. Designing research projects requires attention to a number of key aspects including four inter-related elements: epistemology, theoretical perspective, methodology and research methods (Crotty, 1998), these a framework underpinning research design. This process is described by Creswell (2003) as varying from wide-ranging assumptions researchers bring to their investigations through to specific decisions made on appropriate research tools.

3.3 What is research methodology?

Knowledge, acquisition of knowledge and the subsequent understanding of this, require researchers to make key decisions affecting investigative processes. Methodological decisions facilitate development an investigations structure. Informed decision-making requires consideration of aspects which Saunders, Lewis and Thornhill (2012) present diagrammatically using the concept of an 'onion' (Figure 3.1). This enables consideration of individual layers whilst appreciating relationships between layers.

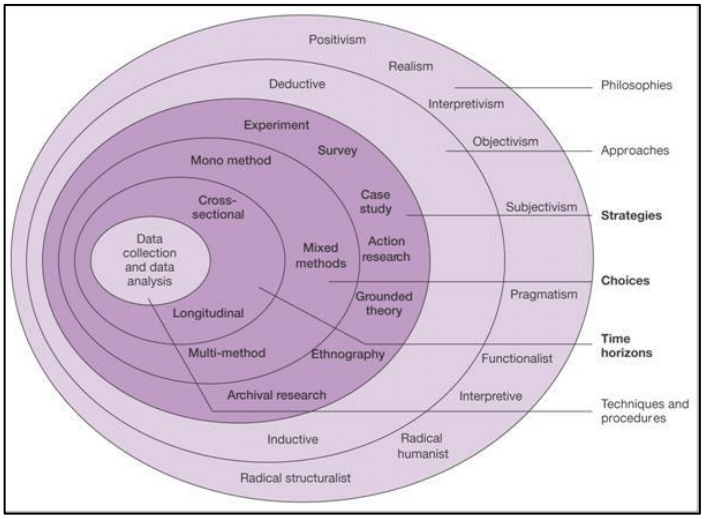


Figure 3.1 Research Onion (Saunders et al., 2012)

3.3.1 Research philosophy

Research philosophy 'contains important assumptions about the way in which you view the world' (Saunders et al., 2009, p108), relating to of three aspects of knowledge: Ontology, Epistemology and Axiology. These are affected by practicalities (Saunders et al., 2009), and influenced by an individual researcher's view of knowledge and its' development. A focus on the influence of concrete facts embraces a different view to than when seeking to understand the influences of feelings or attitudes. The approach to these investigations will differ.

Ontology

Ontology is concerned with the nature of reality (Saunders et al., 2009). The assumptions and views of researchers regarding the way the world operates differ.

Holden and Lynch (2004) describe ontology as a 'cornerstone', as it is the researchers' reality, and the base from which assumptions are made.

One ontological view is that reality exists externally to the social actors within it (Saunders et al., 2009). This *Objectivis*t stance holds that actions occur in response to the fixed cultures within any organisation, cultures something an organisation 'has' (Saunders et al., 2009). Social actors react in response to this external reality; thus, results can be replicated across similar situations or organisations. Conversely *Subjectivism* proposes it is social actors who influence or create social phenomena. These fluctuate and change in response to the understanding and interpretation of events. This ontological approach seeks to draw out from participants their interpretations, assisting the understanding of their subjective reality/ies. In this context, an organisation's culture can be considered innate, created through the understanding or expectations of those within it.

It is possible for a researcher to adopt a *Pragmatic* stance, where research philosophy differs dependent on questions being addressed. This a pluralistic, problem-centred approach considering the outcomes of actions, and aligned to real-world practice (Creswell, 2003) where researchers focus on the 'problem' being investigated. This approach useful where questions posed do not clearly indicate an objectivist or subjectivist stance. Researchers can to work effectively, within a research philosophy continuum (Saunders et al., 2009) (Figure 3.2), allowing utilisation of 'methods techniques, and procedures of research that best meet their needs and purposes' (Creswell, 2003).

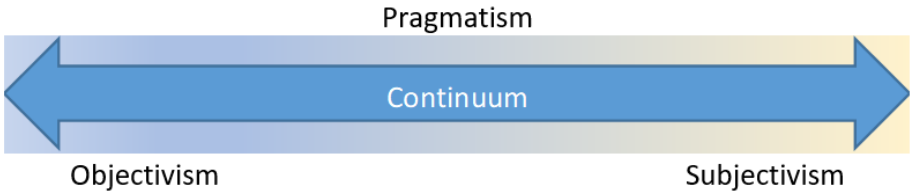


Figure 3.2 Research philosophy continuum
(Derived from Saunders et al., 2009)

In the built environment context Vischer (2008) adds to ontological discussions highlighting how user-centred theories of the built environment can be viewed as a continuum, encompassing Environmental Determinism and Social Constructivism (Figure 3.3). Environmental Determinism posits the environment is the sole influence on behaviours. Whereas Social Constructivism, a subjectivist view, considers social context as the sole influence on behaviours within the built environment. Vischer (2008, p233) argues these are simplistic views and 'any user-centred theory of the built environment is likely to be located somewhere along the continuum between them'. For this researcher, with a social constructivist and interpretivist approach this is key, positioning herself closer to social constructivism on this continuum, but recognising that the built environment affects behaviours.

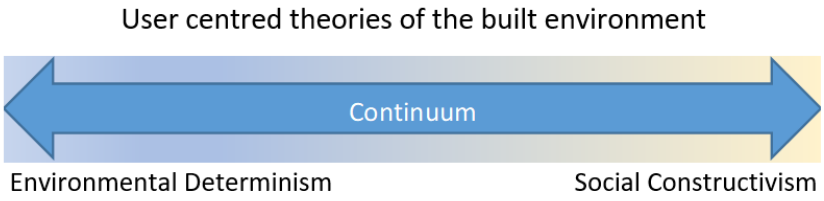


Figure 3.3 User centred theories of built environment continuum
(Derived from Vischer, 2008)

Epistemology

Epistemology considers what is (or is not) deemed acceptable knowledge within an area of study. The philosophical stance of a researcher influences what they consider appropriate knowledge, the **objectivist** researcher focuses on observable phenomena, whilst those with a **subjectivist** approach considers feelings and attitudes of research participants. Focusing on observable phenomena assume a ***positivist*** approach where the 'social world exists externally to the researcher' (Gray, 2009, p18). Knowledge is achieved through observation of phenomena, which can be replicated with the same outcome across different situations. Positivist researchers adopt natural science methods, setting aside personal values and attitudes; their own, and those of participants. Research is designed in such a way to be value-free (Saunders et al., 2009) however, a researchers' values influence the topic(s) considered for investigation. Therefore, it can be argued it is the researchers' own values and attitudes which lead to

the adoption of a positivist philosophical approach when deciding *what* should be investigated, and *how* an investigation should be designed. In contrast ***Interpretivists,*** *or* ***Social Constructivists,*** consider reality to be a social construct (Robson, 2011). These realities are not fixed, are revised as individuals seek to understand and react to experiences (Saunders et al., 2009). Each applies their own perception of the world to experiences, in turn affecting subsequent actions and interactions. However, whilst these constructs are localised and specific to individuals (Guba and Lincoln, 1994), they contain elements common to others sharing the experience. Investigations underpinned by an interpretive approach seek to understand social realities through interpretation of the subjective meanings of participants' social constructions, being 'concerned with the empathetic understanding of human action rather than the forces that are deemed to act on it' (Bryman, 2012, p25). Within this paradigm the values of both researcher and participants, who are 'interactively linked' (Guba and Lincoln, 1994, p111), are acknowledged as key to both the form and outcome of investigations.

Axiology

Axiology is a branch of philosophy which studies judgements about values (Saunders, Lewis and Thornhill, 2009) considering the role values and beliefs have in research and the impact of a researcher's values influencing decision-making. In common with objectivism and subjectivism a researchers' values can be considered within a continuum, one where a degree of influence is from value-neutral to value-laden (Figure 3.4).

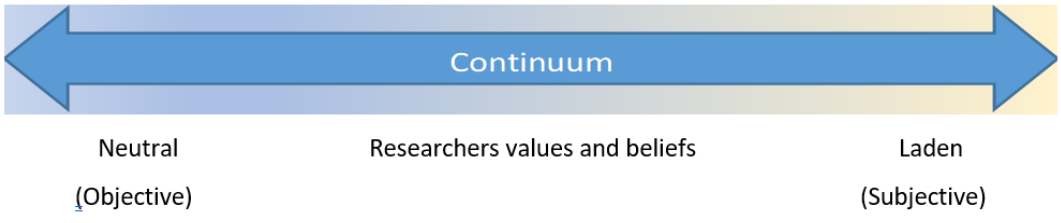


Figure 3.4 Impact of researchers' axiology on investigations
(Derived from Saunders et al., 2009)

An objectivist / realist approach requires personal values and beliefs to be placed to one side as these are not of relevance to an investigation. In contrast, the subjectivist

researcher acknowledges their own values and beliefs and recognises the influence these will have. Thus, researchers' ontological, epistemological stance and axiology directly influence their **research philosophy**. Saunders et al. (2009) outline the four research philosophies as Positivism, Realism, Interpretivism and Pragmatism.

Both *positivism* and *realism* posit an ontological view in which reality is external and objective adopting natural science research approaches focusing on observable phenomena. Positivist research is designed to be as value-free as possible, whilst a realist approach, such as critical realism, considers the perspectives of participants (Robson, 2011).

An *interpretivist* philosophical approach considers reality a fluctuating social construct; influenced by interactions between people (Robson, 2011). Knowledge focuses on subjective aspects being value-laden, situation specific and cannot be replicated. This approach considers social science research as 'fundamentally different from that of the natural sciences' (Bryman, 2012, p28) requiring a different philosophical stance. Researchers seek to understand actions through contexts and eliciting respondents' subjective meanings. The *pragmatic* view is that researchers should adopt the approach identified as most appropriate to answer research question(s). This stance proposes it is possible to consider both concrete observable phenomena and subjective meanings resulting from social constructs. Combining these two data streams assists in the interpretation of research findings.

3.3.2 Research Approach

A researcher, having considered their philosophical position, can then identify their *research approach*. This will be either deductive or inductive. A *deductive* approach develops a theory which is then tested (Saunders et al., 2009) enabling the future replication of an investigation. This approach seeks to 'explain causal relationships between variables' (Saunders 2009, p126) and requiring a value-free, structured approach. In contrast an *inductive* approach seeks to understand social constructs influencing situations, analysis of data leading to the formulation of a theory. This is context specific and appropriate for small sample sizes (Saunders et al. 2009). Although

the approaches have differences in emphasis Saunders et al. (2009) suggest these approaches are not mutually exclusive and can be combined effectively.

3.3.3 Research Strategy

Saunders et al. (2009) advise the choice of *research strategy* should be guided by the research question and objectives, these determining the purpose of a study: descriptive, exploratory or explanatory. Strategy is guided by the research approach; some clearly deductive or inductive. These include: experiments, surveys, case studies, action research, grounded theory, ethnography and archival research (Table 3.1).

Research Strategy	Brief description
Experiment	A research design used to draw causal inferences between a variable and an outcome.
Survey	Cross sectional or longitudinal studies utilising questionnaires or interviews to collect data
Case Study	Exploration in depth of an event, process, individual or group using a variety of data collection techniques.
Action Research	Instigation of change through the process of collaboration between the researcher and participants
Grounded Theory	Formation of a general theory of a process, action or interaction grounded in the views of participants
Ethnography	Long term research with the researcher studying cultural groups in situ to enable understanding via personal engagement
Archival Research	The use of documents and other written records as primary sources of data

Table 3.1 Summary of research approaches
(Source: Saunders et al., 2009; Jupp, 2006)

A choice of either an inductive or deductive research approach does not preclude the ability to use any strategy. However, Yin (2003) and Robson (2011) note the research question posed influences the choice of strategy (Table 3.2).

Research Strategy	Form of research question	Requires control of behavioural events?	Focuses on contemporary events?
Experiment	How, why?	Yes	Yes
Survey	Who, what, where, how many, how much?	No	Yes
Archival analysis	Who, what, where, how many, how much?	No	Yes / No
History	How, why?	No	No
Case study	How, why?	No	Yes

Table 3.2 Relevant situations for different research strategies
(Source: Yin 2003)

Each provides a different way of collecting and analysing data. Yin (2003) advises some social scientists consider research strategies as sitting within a hierarchy. Different strategies appropriate to specific phases of research; case studies considered suitable for exploratory research. The investigation of causal relationships requiring an experimental design; surveys and histories suitable for descriptive investigations. This position is challenged by Yin (2003) and by Saunders et al. (2009) as overly simplistic.

3.3.4 Research method

Within the analogy of the research onion the subsequent layer to be considered is the choice of *method/s* most appropriate for the planned investigation, either mono-method, mixed method or multi-method. Research design where a single data type is considered, quantitative or qualitative, a researcher is selecting a *mono-method* research approach, these paradigms summarised in Table 3.3. Some researchers consider the assumptions within each of these research paradigms as mutually incompatible, therefore not appropriate for combining within the same investigation.

	Quantitative	Qualitative
Role of theory in relation to research	Deductive – designed to test theory	Inductive – designed to generate theory
Epistemological position	Positivism	Interpretivism
Ontological position	Objectivism	Constructionism

Table 3.3

Summary of differences between quantitative and qualitative paradigms
Source: Adapted from Bryman (2012 p36)

In *mixed methods* research investigations collect qualitative and quantitative data (Robson, 2011), combining different methodological approaches: *sequential, concurrent or transformational* (Creswell, 2003).
S*equential* approaches use information gathered via a single data collection method, which leads to a second data collection approach e.g. a use of semi-structured interviews followed by a survey utilising interview data gathered. *Concurrent* data collection involves quantitative and qualitative data gathered simultaneously, e.g. questionnaires with open and closed questions. Where the study design is directed by a principal theoretical perspective Creswell (2003) describes this as *transformational*.

Discussion has arisen regarding the term '*multi-method*'; some authors considering this interchangeable with '*mixed-method*'. This was considered by Burke Johnson, Onwuegbuzie, and Turner (2007), who found definitions given by leaders in this field differed. Some considering it a descriptor for investigations utilising different methods of gathering data, qualitative or quantitative, set within a single research paradigm. This is in line with the definition offered by Saunders et al., (2012), and adopted by this researcher.

Cross-sectional and longitudinal studies

Time constraints are considerations for all investigations; practicalities, such as funding or length of the study period, may be key. However, type or the amount of data required are also influential. Gray (2009) proposes where a time-frame is short, a cross-

sectional design is effective focusing on a single point in time. Investigations studying change and development through a set period require a longitudinal approach (Jupp, 2006).

Data collection and data analysis

The final two areas are *data collection* and *data analysis*. Methods are selected reflecting the type of data required but also considering its analysis. Quantitative strategies generate numeric data, whilst qualitative data can consist of observations, images and visual media, text and interview transcripts. Some techniques, e.g. interviews, generate data for either paradigm, quantitative data generated by a structured format, and a semi-structured interview format for qualitative data. Quantitative data being numeric, conveys little information in its raw form (Saunders et al., 2009). The production of visual representations, such as graphs and charts, or presentation in the form of statistics providing meaning. Qualitative data comprises of non-numeric data. Saunders et al., (2012) compare this to the process of completing a jigsaw puzzle, each piece of data contributes to the overall picture. Researchers' discern and understand relationships between individual pieces. Whereas quantitative data collection provides standardized data, a qualitative approach generates data which requires classification into categories.

Validity and Reliability

The collection of data requires the use of an appropriate tool, thus ensuring the process provides meaningful and relevant data. Additionally, where data is gathered at different times or locations, or by different researchers, there is a requirement for consistency, without this, comparisons cannot be made, nor results inferred. Research tools require *validity*; data collected is pertinent to the research question. However not all types of research validity, Gray (2009) identifies seven types, are relevant to case study investigations. Construct validity, relates to the measurement of abstract concepts (Gray, 2009). In case study investigations (as in this investigation) this is strengthened through multiple sources of data, and by ensuring different sources are recorded and reported in a manner enabling readers to understand the progress of evidence through

to conclusions (Yin, 2003). For this investigation the data from participant interviews were considered alongside grey literature and the data from site surveys.

This investigation is descriptive in nature therefore internal validity, where cause and effect are established, is not relevant. The small-scale investigation not supporting external validity; preventing generalisation to a larger population or setting (Gray, 2009). Similarly, criterion, content, predictive and statistical validity are not relevant to this investigation. *Reliability* of data collection tools requires consistency, both of the version of the tool used and the manner of application (stability) Gray (2009). This investigation required data collection utilising the same version of the Play Park Evaluation Tool (PPET); all site visits made on weekdays during predicted periods of low play park use. Inter-rater reliability not a concern as all data collection was completed by a single researcher. However, the timescale of data collection required consideration of intra-rater reliability supporting data comparison. This was achieved through repetition of data collection at a single site and comparison of the results noting where there was divergence and revising the evaluation tool accordingly.

3.4 Summary

This chapter outlines the different aspects of research strategies and methods contributing to an academic investigation. This consideration supported by the analogy of a Research Onion (Saunders, 2009) and supporting the researchers methodological decision-making through an understanding of both philosophical approaches and research strategies. The identification of appropriate strategies for data collection ensures its relevance to the research question under investigation and guides the approach to data analysis. Whilst research strategy and methods are key to effective investigations there are other aspects which require consideration including reliability and validity as these support consistent data collection and therefore are influential in ensuring the relevance of the findings of an investigation. This chapter provides the foundation on which the research methodology for this investigation is based enabling the researcher to identify appropriate methodological approaches and to justify their selection which is outlined in the following chapter.

Chapter 4 Research methodology relating to this investigation

4.1 introduction

The understanding of strategies and approaches available to researchers supports methodological decision-making. Understanding the foundations on which an investigation is based enables researchers to evaluate their approach and to ensure their findings have relevance to the research question. This chapter develops from the previous chapter in that it outlines the research methodology adopted for this investigation placing it in context with the researchers' philosophical position. The chapter identifies the research strategies to be employed in both the initial and main investigation explaining and justifying their selection as well as outlining the reasons for discounting alternative options. Supporting the researcher in the formulation of the research strategy is the creation of a research protocol supporting consistency of application and a summary of the reasoning underpinning the research design. Following this the identification of case study sites, the approach to data collection and ethical considerations for this investigation are outlined.

Research design

The **purpose** of this investigation is to understand how the reasoning and decision- employed by those commissioning the creation or redesign of play parks influences the design and resulting accessibility, usability and play value of play parks. Therefore this, the investigation is ***descriptive*****,** outlining the situation across a number of sites, and ***explanatory***, seeking to understand how individuals influence design and consequently the accessibility, usability and play value of each site. ***Descripto-explanatory*** investigations describing situations, using data to draw conclusions about the subject under investigation (Saunders et al.,2009, p140). The initial investigation established the current situation regarding accessibility, usability and play value. Generating quantitative data confirming the validity of the research question. Subsequently, following identification of the most common methods for commissioning play parks, eight case study sites were identified. These provided quantitative and qualitative data enabling causal relationships to be identified and considered.

This investigation's research philosophy has an ontological perspective of ***subjectivism***, seeking to elicit the individual's perspectives regarding play park creation, providing data which enables an understanding of their realities in line with the researchers' ***interpretivist*** approach. These realities shape actions and outcomes, influencing the design of the case study play parks. There is however acknowledgement that physical aspects of the built environment influence both patterns of use and users' perspectives, therefore this investigation is placed closer to Social Constructivism on the continuum (Figure 4.1) when considering the influence of Environmental Determinism.

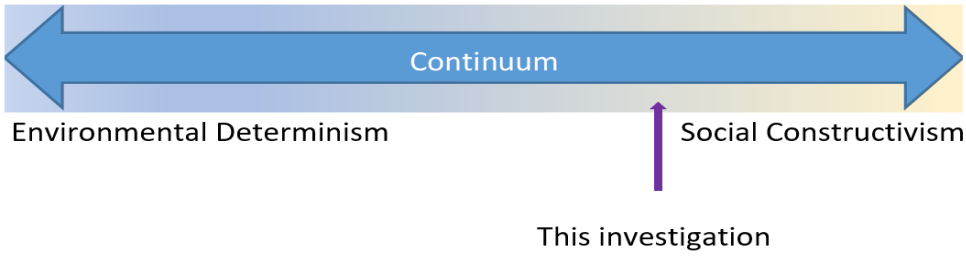


Figure 4.1 Position of this investigation on the Environmental determinism / Social constructivism continuum

Reflecting the researchers' interpretivist approach the ***values*** of both participants and researcher are recognised as inherent and influential, this acknowledgement minimising resulting bias. The values of participants are accepted as integral to the investigation.

The aim of this investigation was to establish what aspects influence the design choices made by those involved with creating play parks. According to Creswell (2003), an understanding of historical and cultural influences on those participating in investigations enables researchers to understand the subjective meanings of their social constructs. In line with the stated research philosophy for this investigation an **inductive research approach** was adopted. The limited research investigating the roles, knowledge and motivations of those responsible for play parks (Prellwitz & Tamm, 2009; Jansson & Persson, 2010; Spiegal et al., 2014) indicates this approach is appropriate. The research process moving from observation and description, through analysis, to evidence-based conclusions based (Saunders and Tosey, 2012). The researcher gathers data personally within relevant context(s), their interpretation 'shaped by the researchers own experiences and backgrounds' (Creswell, 2003, p9).

Effective investigation of a research question requires a **research strategy**, in this investigation a case study approach was selected as appropriate.

Alternative strategies were discounted:

Experiment: This requires the control of a variable to establish a causal relationship. This is inappropriate as it is a deductive technique requiring the comparison of results between control and experimental groups (Saunders et al., 2011).

Survey: This is defined by Bryman (2012, p59) as a 'cross-sectional research design in which data are collected by questionnaire or by structured interview'. This ensures relevant data gathered and that all participants are asked the same questions. However, the design is fixed, and cannot be adapted to reflect different circumstances or new information. This limits a researchers' ability to draw out relevant additional details.

Action Research: This strategy seeks to achieve improvement through changes in practice, researchers conducting enquiries from within a structure or organisation. This design is context specific (Koshy, Koshy & Waterman, 2011), providing opportunities to collect information on attitudes and perspectives of those collaborating in the research (Gray, 2009). The identification of a suitable play park development, the logistics of ensuring all project members agree to the researchers' involvement, and an inability to confirm a project's completion within the researcher's limited time-frame meant this strategy was discounted.

Grounded Theory: This strategy is described by Bryman (2012) as seeking to generate a theory relating to a given situation through the collection of data, especially that regarding the people involved. This provides a flexible and responsive framework for investigations; however, the constraints are similar to those of Action Research making it unsuitable for this investigation.

Ethnography: Ethnographic research focuses on cultural aspects with data generated by observation, either as a participant or observer, seeking to understand relationships between culture and behaviour (Robson, 2011). This is compatible with this

researchers' ontological stance; however, this approach requires investigation over longer time-scales than available.

Archival research: The use of documents to generate data is not appropriate in this instance as records of small localised projects are limited in scope and would not provide in-depth insights into individuals' perspectives and decision-making.

4.2 Justification for case study strategy

The purpose of this investigation is to understand why the reasoning and decision-making employed by those responsible for the creation or redesign of play parks does not consistently provide facilities with accessibility, usability and play value. The initial investigation and media reports (e.g. Rutland and Stamford Mercury,2012; Roberts, 2014), confirmed this situation is not limited to one locality or district. To investigate issues found throughout society it is not possible to study society as a whole. Perry (2011) considered this, questioning how this can be achieved. In summary, if it is accepted there is a world which is knowable, how then do we uncover this knowledge? She advises a case study research strategy is one method by which researchers can gather evidence enabling conclusions to be considered regarding the wider world. However, some consider case studies only suitable for the initial stages of investigations (Yin, 2003). This design does however offer opportunities to gather a depth of detail not available in strategies such as surveys (Denscombe, 2014), and enables the use of multiple types and sources of data. This approach is appropriate enabling investigation of both 'how?' and 'why?' the current situation exists, and the investigation of events over which the researcher has little influence (Yin, 2003). In selecting a case study strategy there is an obligation to consider how a 'case' is defined within the context of an investigation. A case is identified as a single entity or phenomenon which, as Denscombe (2014, p55) notes, has a 'distinctive identity that allows it to be studied in isolation' and Perry (2011, p221) as being a 'bounded unit', which, in this instance, is an individual play park.

Further definition is required in regard to the design of the investigation. Yin (2003) identifies four distinct types of case study investigations (Figure 4.2). 'Holistic', where

there is a single unit of analysis, and 'embedded', with multiple units of analysis, each of which can consist of single or multiple cases. These four design options require different approaches and therefore key decisions on design need to be made before data collection commences.

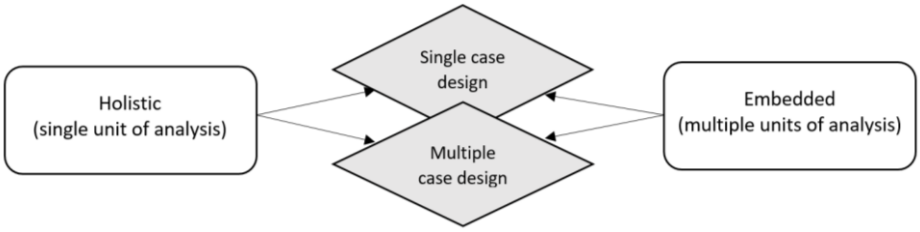


Figure 4.2 Case study investigation designs
(Source: Yin, 2003)

A holistic single case design will be selected where case characteristics provide sufficient data to test theory. Cases can be unique or extreme, or defined as a typical example. Whilst providing opportunity to focus on a single instance in great depth, it does not enable comparison or generalization. Single cases containing sub-units considered within the investigation, are embedded case study design. Multiple-case designs are not applicable where cases are unique or extreme but do support generalization of results and are more robust. Again, where there are sub-units of analysis this design is referred to as embedded. Both single and multiple case designs are subject to criticisms. Single cases may be considered less robust (Yin, 2003), however increasing the number of cases may reduce the depth of data, and Gray (2009) advises, for embedded case studies, sub-units may become the focus of the investigation impacting on the achievement of the stated research aim.

The aim of this investigation, would not be met through a single case study site design, although this would provide the opportunity for a detailed and intensive analysis (Bryman, 2012). In investigating these influences on play park provision, identification of a critical case 'to test a well-formulated theory' (Yin, 2003, Chapter 2, para 71) is not appropriate as this investigation is inductive, designed to generate theory. Nor does the investigation utilise a unique, representative or revelatory case, and does not have a longitudinal timeframe; other criteria indicating a single case study site is appropriate (Yin, 2003). This indicated selection of a multiple-case design, utilising both

quantitative and qualitative data collection methods. As data from each of the units is not combined the design is multiple embedded rather than holistic (Gray, 2009).

Design science approach

Design science approach to methodology is widely adopted by many disciplines but is applied widely in the fields of computer sciences and engineering, the literature about this methodological approach reflecting this. Design Science Research (DSR) considers identified real-world problems through a solution finding approach, that is an outcome-based methodology which utilises reflection and evaluation in a cyclical process to refine the quality of the outcome. Vaishnavi, Kuechler and Petter (2017) advise that this approach supports the creation of new knowledge through the design process used and that an advantage of this methodology is the ability for researchers to adopt 'different approaches to research and development of knowledge' (p2). This cyclical approach can be summarised as having the following stages: an awareness of a problem (with a proposed solution, following this a suggestion phase resulting in a tentative design, the development of this concept, evaluation stage(s) utilising criteria outlined in the proposal, and a conclusion which can be either the completion of a research cycle or of an investigation (Vaishnavi, Kuechler & Petter, 2017).

The adoption of this methodology by researchers intends to 'change the actual into the preferred, with research-informed design as the core activity' (Van Aken & Romme, 2012, p141). This achieved through a focus on the identification of a solution. Van Aken and Romme (2012, p145) suggest this 'implies design science researchers are not satisfied with describing field problems and analysing their causes, but also develop alternative general solution concepts for these field problems'.

In the framework of this investigation this approach has relevance as DSR considers the context of the subject being investigated as core (Barab & Squire, 2004). The case study approach enabling the current situation to be identified through site evaluations alongside participant interviews outlining the factors influencing their choices. The process by which the evaluation tool and play value infographic are created, evaluated and revised 'drawing on multiple forms of knowledge…tacit as well as explicit' (Van Aken & Romme, 2012, p141), reflecting both this researcher's academic focus and role

as a practising occupational therapist. Whilst DSR offers a methodology which enables a reflective and iterative approach to research the Fishman et al.'s (2004) criticism that this approach does not address systemic issues must be acknowledged.

4.3 Activity analysis

Information about different types of play activity and the play value they offer is available through sources including the Inclusive Play Design Guide (Playworld Systems.com, 2013). However, understanding which play experiences are provided through interaction with items of play equipment was required.

As an occupational therapist the evaluation of how an activity is completed and the skills required is a core skill utilised during the assessment and treatment process. Familiarity with this technique and the need to evaluate different activities found within play parks identified this as an appropriate tool to support data collection. Hersch and Lamport (2004, p8) advise activity analysis is initially separated into two aspects, human and non-human. Mosey (1986) advises the process requires the identification of its component parts and an ability to combine these to achieve a suitable activity. Identifying and evaluating component parts of an activity is described as 'a complex and lengthy process' enabling us to understand 'the numerous elements of the activity…[and] skills required to perform each element' (Foster and Pratt, 2002, p145). Within occupational therapy this process is utilised to assess an individuals' ability to complete a task (occupation), considering how ability interacts with the demands of an occupation, enabling or preventing its completion. Applied in a therapeutic situation activity analysis enables the adaptation of an activity through equipment, alteration of a process, or teaching of an additional skill. This enables patients to regain a lost proficiency or to achieve a new skill. In the context of this investigation therapeutic intervention is not required. However, the ability to consider human and non-human elements of activities enabled the assessment of component elements and actions required to use individual items of equipment, and to ascertain the outcome of these. To illustrate this process, a simplified activity analysis for use of a traditional swing has been summarised in Table 4.1.

Activity	Swinging					
Equipment	Traditional (flat seat) swing design					
Individual human aspects (skill or ability)	Ability to access the equipment (mobility)	Ability to transfer on / off equipment	Ability to support self in sitting position	Ability to initiate and maintain momentum	Ability to stop momentum	Risk awareness
Human aspects (assistance)	Support to access location of equipment	Support for transfers on/off	Support to initiate and maintain momentum	Support to stop momentum	Risk assessment	
Non-human aspects	Swing design	Swing location	Surface finishes to and around swing			
Outcome / desired activity	Forward and backwards motion (swinging)	Height (at top of arc)	Sensation of risk (Speed & height)			

Table 4.1 Activity analysis for use of a traditional swing

(Source: Developed by researcher)

Human aspects considered when seeking to achieve this activity include the height and size of the child, their ability to independently maintain a sitting position (including gripping swing support chains), strength, range of movement and proprioception. These required to initiate, maintain and stop momentum. Also considered is the suitability of this activity for a child. The process then considers if assistance by another individual would facilitate the activity if the child was unable to achieve any, or all, of the human aspects. Finally, although considered concurrently, non-human aspects are appraised such as the presence of pathways to the swing unit, use of loose-fill surface finishes around and below, and the appropriateness of the swing design for the child's abilities. Analysing these without consideration of the desired occupation or activity removes the validity of the analysis. In this example, enabling the child to access and sit on a swing, but not to achieve momentum and the sensations this provides means the activity has no purpose, outcome or reward.

This investigation requires an additional aspect of activity analysis; the play type(s) items of equipment offered. The type of equipment may provide single or multiple options, dictated by the design. Use of activity analysis to identify different ways in which equipment can be used requires an understanding of the desired outcome as well as an appreciation of different options for use. Illustrative examples are given in Table 4.2.

Equipment	Outcome(s)	Type of play
Traditional swing	Sitting	Solitary / social
	Swinging (forward / back)	Solitary /parallel / cooperative (when momentum is assisted)
Net / nest swing with single support	Sitting	Solitary / social
	Lying	Solitary / social
	Swinging (forward / back)	Solitary / social / cooperative
	Swinging (rotational)	Solitary / social / cooperative
See-saw	Movement in vertical plane	Social / cooperative
Slide – traditional design	Height	Solitary / linear
	Sliding / falling sensation	

Table 4.2 Examples of play types offered by different items of play equipment
(Source: Developed by researcher)

Therefore, it is the understanding of <u>all</u> the elements required to use an item of play equipment which enables the evaluation of its play value (Table 4.3). This summary reflecting key play value aspects identified in the literature review including risk and challenge (Prellwitz and Skår, 2007; Kvalnes, 2017) and social and cooperative play (McClain & Vandermaas-Peeler, 2016). Assessment of the associated skills listed is acquired from the researchers' theoretical knowledge, use of activity analysis and practical experience linked to her role as an occupational therapist.

Play Equipment	Play Activity	Associated skills	Play value
Swing	*Swinging*	Sitting balance Standing balance (child stands on swing) Grip Coordination Core stability	Stimulation of vestibular system: linear / circular motion Element of challenge / risk in swinging higher Nest swing – social play
Slide	*Sliding*	Lower limb strength / coordination Grip balance	Stimulation of vestibular system: 'modified fall' Challenge / risk (perceived via height & speed)
See-Saw /Rocker /Wobble board	*Rocking*	Sitting balance Grip Lower limb strength	Stimulation of vestibular system: linear / circular motion Multi use: social / cooperative play
Roundabout / swivel pole	*Rotation / Spinning*	Sitting balance / Standing balance (dependent on design) Upper body strength (pushing /pulling) Core stability	Stimulation of vestibular system: rotation Challenge / risk (perceived via speed) Multi use: social / cooperative play
Climbing frame	*Climbing / height / balance*	Upper limb strength Lower limb strength Coordination Balance Jumping	Development of proprioception (awareness of body in space) through contraction / stretching of muscles & full range of joint movements / joint compression Agility Spatial awareness
Monkey bars / Giant's steps	*Hanging*	Upper limb strength Coordination Grip	Development of proprioception (awareness of body in space) through contraction / stretching of muscles & full range of joint movements / joint compression

Play Equipment	Play Activity	Associated skills	Play value
Stepping stones	*Balance*	Balance Coordination Core stability	Development of dynamic balance (through feet) Proprioception Challenge (height / complexity / support offered)
Tunnel	*Crawling*	Coordination Core stability	Development of proprioception (awareness of body in space) through contraction / stretching of muscles & full range of joint movements / joint compression Tactile stimuli – e.g. full body contact
Bridge	*Balance*	Balance Grip (if required)	Development of dynamic balance (through feet) Proprioception Challenge (height / complexity / support offered / width / dynamic movement)
Play structure	*Imagination*	Identifiable structure e.g. house / boat / castle	Imaginative play Role play Cooperation Solitary / quiet time
Activity panels	*Cognitive*	Puzzle solving or playing Imaginative play Mirrored surface Music / chimes etc.	Cooperative & cognitive Role play Visual stimulation Auditory stimulation

Play Equipment	Play Activity	Associated skills	Play value
Choice of construction material	*Tactile sensations*	Smooth / rough Chain / rope Hard / yielding Natural / manufactured Uneven Colour	Metal surface (slide) / Boulders or rope Metal links / plastic or natural rope Metal or wooden construction / flexible surface or dynamic construction Grass / poured rubber surface 'bumpy' slide or use of landscaping Visual stimuli / way finding

Table 4.3 Fixed items of play equipment, associated activity, skill and play value
(Source: Developed by researcher)

4.4 Data collection methods for this investigation

Case studies are often associated with qualitative research (Bryman 2012), techniques employed within case studies can encompass qualitative and quantitative methods (Perry, 2011). Techniques, including observation, interview, survey and use of documentation, provide an opportunity to gather evidence. Also, the use of mixed methods can enable a researcher to 'collect a richer and stronger array of evidence than can be accomplished by a single method alone' (Yin, 2003, p61).

This investigation uses quantitative and qualitative methods interdependently, focusing on the same research question, employing techniques of site survey (site evaluation), semi-structured interview and documentation. To ensure the consistency of data gathering and recording a protocol was drawn up prior to the initial investigation.

4.5 Research protocol

Gray (2009, p51) advises that the creation of 'a structured set of processes and procedures' supports the consistency of a researchers' approach to data collection within a case study approach. The diverse locations of case study sites and the timescale predicted for data collection indicated the creation of a research protocol to

support consistency. This document provided the researcher with a point of reference prior to each participant interview and site survey, thus minimising the impact of previous data collection and experiences. This document reviews the background to the investigation prior to outlining the research methodology resulting from the researchers' philosophical stance and identification of appropriate data collection methods. The content of this document is below.

Background

There is limited research directly considering the impact of individuals on the design outcomes of play park provision. Prellwitz & Tamm (1999) consider this in relation to access, but this is only a single aspect of provision. Investigations considering the accessibility and usability of play parks are outlined in the literature review in this thesis including studies by Barbour (1999), Baylina Ferré, Ortiz Guitart & Prats Ferret (2006), Bedell et al (2013) and Woolley (2013). Also, considered are the benefits and disadvantages that play as an occupation provides for children, and how adults influence play park provision and facilitate children's involvement in decision-making linked to this provision.

Project overview: This investigation seeks to understand the influence of individuals' decision-making on the accessibility, usability and play value of local play parks. To achieve this two questions require consideration: 'What aspects of play park provision are key to accessibility and usability?' and 'What consultation approaches are utilised?'

Case study design

Comparison of case study sites indicates a multiple embedded case study design (section 4.2); utilising quantitative and qualitative data. The selection of sites using different procurement methods enables comparison, including of the elements (accessibility, usability and play value) identified as most relevant to achieving high quality play parks.

This design approach requires three sources of data:

Site evaluations: Data collection through completion of the Play Park Evaluation Tool (PPET) during site visits, supplemented by photographic images. This provides data on

the three key aspects of provision identified, illustrates site facilities and equipment, and describes the general area. Site surveys to be completed prior to participant interviews with questions arising from the site evaluation addressed during participant interviews. *Key individuals* for each case study site identified and, where consent given, interviewed. Interviews to be held onsite, or in a location nominated by the participants. *Additional data* to be sourced including minutes of meetings, media reports and social media sources further informing understanding of the development process.

Case Selection:

Case study sites were required for both the initial and main investigation. The identification and selection process determined by different criteria reflecting the purpose of each stage of the investigation. The *Initial investigation* consisted of a non-probability sample of 20 play parks in Lincolnshire designed to establish if different sites offered varying levels of accessibility, usability and play value. This sample reflects the demographic of Lincolnshire which is a large rural county with one city, approximately 15 market towns and numerous villages and hamlets. The distribution of these sites was city 10%, urban 25% and rural 65%.

The identification of case study sites for the *Main investigation* resulted from a combination of purposive and snowball sampling this ensuring that the different methods of provision identified by the researcher were adequately reflected. These are listed in Table 4.4 forming the selection criteria for this investigation.

	New provision	Case study site
1	Site created by a benefactor - restricted user group (children with disabilities)	(CSS1)
2	Site created for accessible play – open to all users	(CSS2)
3	Proposed & led by local action group	(CSS4)
4	Creation of new site led by local council	(CSS8)
5	Creation of play park by property developer	n/a
	Refurbishment of an existing site	
6	Additional accessible equipment provision - volunteer initiated / led	(CSS3)
7	Full refurbishment of existing site - local council	(CSS5)
8	Full refurbishment of existing site - volunteer initiated / led	(CSS6)
9	Partial refurbishment of existing site - local council	(CSS7)

Table 4.4 Different methods of play park provision

Case Study Roles and Procedures:

Understanding of the researchers' role within an investigation supports consistent data collection and minimises bias. Participant interviews were therefore completed by a single researcher using the same field procedures, the data collection paperwork utilised across all sites, completed contemporaneously. For *Site evaluations* the field kit remained consistent (waterproof folder / clipboard, blank copy of evaluation form, pens / pencils, aerial site view, Ordnance survey map, compass, 5m steel tape measure & camera). The interview schedule (Appendix D) supported the completion of *Participant interviews.* For these an initial contact was made via email, followed by a telephone call. Once verbal consent to participate was provided a letter outlining the purpose of the investigation was provided with a copy of the participant consent form, these included in Appendix F. Hard copies of both documents were provided, and a signed consent form obtained from participants prior to interview, these retained with the case study site documentation. Participants were provided with signed copies of documentation.

Consent included permission to create a digital recording of the interview and its later transcription as well as the right for the participant to withdraw from the investigation.

Data Collection

The data to be collected during the *site evaluation* includes the site layout, topography, access, facilities and equipment. During *participant interviews* the interview schedule supports data collection on roles and responsibilities, experience and training, funding sources, the development / refurbishment process, difficulties and issues experienced, the understanding of accessibility and usability, consultation methods employed, and additional information participants considered relevant to their project or the investigation. Internet searches for grey materials relevant to each case study site to be completed prior to visits. Each visit approximately 2 hours in duration. Participant interviews to be approximately 1.5 hours and transcribed by the researcher in a timely manner. After visits a further review of grey literature to identify additional data to be completed. Storage of data requires consideration for data protection and information governance and also to support later analysis. Hard copy data to be stored securely at the researchers' home address and electronic data stored either on a password protected laptop or on a secure memory stick. Digital images and recordings to be transferred from portable digital media devices and deleted from the original storage device.

The creation of a research proposal facilitated a reflection of the proposed methodology and supported the validity of this approach. The case study protocol supported data collection from multiple sources of evidence enabling triangulation. From this consistent record keeping across the case study sites by a single researcher utilising a single recording method was enabled.

The research protocol not only considered the background to the investigation but also considered the **limitations** of this approach. This included that the case study sites are of different sizes and had been established for different lengths of times and utilised different funding streams. These may mean that the data collected, and key aspects identified were not experienced at other sites.

In planning a case study investigation agreed timescales, organising contacts with participants and setting up site visits are required. To support this the research protocol included a **schedule** which provided a structure to follow supporting actions in a timely manner, enabling the transcription of interviews and ensuring that the investigation progressed in a manner which reflected the researchers' student registration. This included the data collection and review of results for the initial investigation during May and June 2014. This was followed by the planning stage of the main investigation between July 2014 – December 2014 including the identification of suitable sites, contact with key individuals and obtaining initial agreement for participation in the investigation. Data collection for the main investigation was completed between January 2015 and June 2017. This timescale enabled the completion of case study projects which had not yet been concluded.

During this period of data collection transcription and initial analysis of data was ongoing. This thematic analysis of data was completed through a computer-assisted qualitative analysis programme (CAQDAS); Nvivo10©. Quantitative / nominal data gathered was presented in graphical or chart form to illustrate the frequency of provision of both fixed items of equipment and of play activities at case study sites. The requirement of the University of Salford for an interim report detailing progress, reviewed by internal examiners was included within the schedule, taking place in December 2015. The submission deadline for the thesis was 30th June 2017.

Initial investigation

Analysis of the initial investigation data to be completed to ascertain if current provision is meeting the needs of play park users of all abilities. The outcome of this evaluation will determine if there is sufficient evidence to support progression to the main investigation.

Research protocol: Site Evaluation

This method is used in both initial and main study, providing quantitative data enabling comparison of aspects within each play park against predetermined criteria.

This investigation seeks to illustrate the current situation regarding play park provision. This requiring conduction of primary research (Dawson, 2007, p41), that is 'the study of a subject through first-hand observation and investigation'; in this instance, completion of site visits to gather data. This approach requires the collection of information to illustrate examples, but, as advised by Thomas (2011), to analyse this data. Gray (2009, p294) advises there are a wide variety of tools available for collection of data, however the need to gather information regarding 'what, where and how many' indicates use of a survey approach, especially as the specified timeframe is cross-sectional. The site evaluations are descriptive surveys collecting comprehensive data using a standardized method (Gray, 2009). This at a specific point in time using a variety of data collection techniques (Denscombe, 2014), to measure 'what' the current situation is at each site. An advantage of this method of data collection is it supports later analytical investigations; those addressing 'why' a situation exists. Descriptive data assists in the interpretation of a position; without a clear understanding of a situation it is not possible to analyse and understand the processes leading to this.

Recording tools require the ability to gather data across the same categories and in a manner enabling cross-site comparison. Through pre-testing of survey questions and categories, the validity and reliability of the site survey tool was reviewed and revised. This ensuring the design and information recorded are appropriate for the investigation (Gray, 2009). Saunders et al. (2012) advise survey administration methods depend on the structure or design of the survey tool. Gray (2009) identifies two processes for survey completion; self-administered or researcher-administered. Self–administered survey was considered, a technique utilised by Prellwitz, Tamm and Lindqvist (2009) for their investigation into play park accessibility. Disadvantages of this method include the possibility of respondents having preconceived and emotive views of 'their' play park, as well as the time required to identify and train individual respondents to complete paperwork. Through a researcher-led approach there is consistency in information gathering across all sites. This enables the researcher to gain an appreciation of the individual characteristics of each location, as the gathering of factual information in a face-to-face interview supports understanding of an individuals' outlook (Gray, 2009). The site evaluation creates a written and pictorial (photographic) record (Figure 4.3) of

each of the initial investigation play park sites and main investigation case study sites supporting the review of data, writing up of summaries, and the analysis of interview records.

Figure 4.3 Data collection at case study sites

The model for the site survey tool was the access audit approaches described by Holmes-Siedle (1996), who identifies three types of survey: comparative, analytical and adaptive. The initial investigation site evaluations are comparative surveys, focusing on the presence of facilities (access options, floor surface and items of equipment), and described by Ormerod (2005, p140) as a 'tick-box exercise'. The main investigation utilises both comparative and analytical surveys, as data collection includes information relating to how effectively sites meet the needs of disabled users, and play value offered. This in line with Ormerod's (2005, p145) recommendation audits also consider wider areas such as 'sensory issues and cognitive aspects'.

The audit tools used in this investigation are attached in Appendix B, this data supplemented by photographic records of each site.

Research protocol: Semi structured interview

Interviews gather both qualitative and quantitative data (Davies, 2006a). According to Gray (2009) there are five categories of interview ranging from structured formats (adherence to standardized questions), to unstructured formats (non-directive, focused, and informal conversational) where questions are not pre-planned. The former enables the collection of data in a time efficient manner but does not offer opportunities to develop respondent's replies. The latter are flexible formats, however

are time-consuming and may generate data which is difficult to analyse (Gray, 2009). The use of a semi-structured interview format, a series of questions prepared in the form of an interview schedule (Bryman 2012), supports interview focus but enables exploration and discussion of respondents' answers. This flexibility enables the researcher to react to topics as they arise and can, as noted by Gray (2009), assist in meeting research objectives.

For this investigation the participants were individuals who were identified as having key roles in the creation of the case study site play parks. Locations for each interview were selected by the participant(s) providing a setting in which they felt comfortable; conducive to open discussion. Questions were open-ended with the interview schedule (Appendix D) providing sufficient structure to ensure topics were covered effectively, facilitating the introduction of aspects considered important by participants and enabling cross-case comparison (Bryman, 2012). The purpose of the interviews clarification of aspects including ownership and management, the structure of the group responsible for the recent developments and key aspects of provision.

Face-to-face meetings were requested with participants, without specified time parameters proposed, as this, and the setting, were considered to promote open discussion and responses. Where participants indicated they had limited availability appointments were arranged to ensure sufficient time in which to cover key areas. Prior to each interview written consent was gained to record the discussion using a digital audio-recorder. The recording then promptly transcribed by the researcher, assisting in the recall of discussions. Transcripts of the interviews were uploaded to Nvivo10© with other data from each case study site.

Research Protocol: Documentation

Denscombe (2014) defines documents as written text, digital communication or visual sources (Table 4.5).

Type of document	Examples
Written text	Books
	Articles
	Reports
Digital communication	Web pages
	SMS texts
	Blogs
	Social networking sites
Visual sources	Pictures
	Photographs
	Video
	Artefacts

Table 4.5 Types of documentary data
(Adapted from Denscombe 2014, p226)

Play parks, as defined within this investigation, are public spaces and therefore are the responsibility of the local parish, town, borough or city council. As a result, records form part of the public record, and can provide insight into the creation, history and management of these facilities. Gray (2009, p428) describes documents as an 'unobtrusive' method of data collection; but notes information within them may not necessarily be accurate or complete. Additionally, organisations will have 'grey' materials (emails, minutes, etc.) forming part of the decision-making processes resulting in public record documents, but not publicly available. Internet access is common-place and many records are now available in digital form. Denscombe (2014) posits websites are effectively documents, as the information they contain can be analysed in the same way as paper documents. Limited restriction over content on the internet does however present researchers with a responsibility to consider authenticity and reliability of web-based resources. Denscombe recommends consideration of the stature of host organisations, including disclaimers and statements and the frequency information is updated.

Images form part of the documentary record and can illustrate changes and developments. The ability to digitally manipulate images requires the same consideration of reliability as applied to documents sourced from the internet. Denscombe (2014, p235, p237) identifies two types of pictorial documents. 'Created' images generated by the researcher as part of their investigation, and 'found' images,

those relevant to the investigation, but created by others for alternative purposes. This investigation utilises both image types.

Facilitating consistent and accurate reviews of play park provision across the initial and main case study sites, tools were required to support the collection of relevant physical data. Therefore, the inclusion of aspects impacting on accessibility, usability and play value, and the creation of an accurate record of fixed items of equipment at each site was essential. (Risk assessment and hazards in play parks were excluded as these do not form part of this investigation.) Tools identified and considered did not meet the needs of this investigation therefore a data collection tool developed as part of this researchers MSc investigation (Parker, 2010) was adapted. To support this a literature review was completed for advice on accessibility and inclusion within play parks. As access to online information has increased so has the availability of advice. However, most information available focuses on the assessment and management of risk. This is an essential part of planning and maintaining these facilities, but an aspect with little impact on inclusivity, access or developing spaces with high play value. A further search was completed for guidance on designing inclusive play parks. This advice available to a lesser degree than regarding management of risk, the level of information, and its functionality are restricted. Identified information and advice are of four types; research (theses, dissertations and published articles), industry-specific advice, general advice on play park provision, and audit or survey documentation.

The information and data sources identified in the literature review linked to site surveys and the use of activity analysis under-pinned the creation of PPET. Within the timescale of this investigation this tool underwent an initial validation through peer-review and use at a nominated site, the findings from these are summarised within Chapter 6.

4.6 Sampling: Identification of case study sites

The population size for this investigation requires the use of sampling as it is impractical to complete a census gathering information from all play parks within England. There is no available register listing all sites and details of those who hold responsibility for

them. Saunders et al. (2009) advise the use of sampling is advantageous; a smaller population size reducing cost and time requirements during data collection and analysis. Where it is possible to identify a known population probability sampling can be applied; all having an equal chance of selection and most appropriate for quantitative research. Where this is not achievable or practicable, non-probability sampling is applied which does not enable statistical inference from the results. Techniques appropriate for non-probability sampling include quota, purposive, snowball, self-selection and convenience sampling. This investigation utilises both purposive and snowball sampling.

1. *Purposive sampling*: often used in case study research (Saunders et al., 2009) enabling researchers to select cases based on attributes providing optimum opportunities to address research questions. Careful selection of cases containing contrasting elements may ensure a wider range of factors are considered, but this sampling technique carries a risk a researcher will omit a key attribute, or introduce bias within the selection (Gray, 2009).
2. *Snowball sampling*: the researcher identifies a small number of cases, respondents from these providing further examples, these included within the investigation. This technique has the same disadvantages as purposive sampling.

Where these sampling techniques are employed, it is not possible to set sample size prior to commencing an investigation. The exploratory nature of this investigation supports the use of a small sample size (Denscombe, 2014), unlike a quantitative approach which requires a representative sample. Lack of consistency in the composition and background of groups responsible for creation and refurbishment of play parks indicated this was required.

Selection of initial investigation sites

The sample for the initial investigation is a snowball sample consisting of play parks known to the researcher, recommended by play park users, and identified through

internet research, reflecting a mix of city, town and village locations including both new and established provision.

Selection of main investigation sites

There is no single method by which play parks are commissioned and created within the UK. Identification of different methods employed and the groups behind play park provision were required to facilitate case study site selection. Initial research was completed via an internet-based search for 'new play park provision', accessing local media sites and Parish or District Council announcements. Once sites were identified further research was completed to identify the process by which the site had been developed and involved groups and organisations. During this time, additional sites were identified through snowball sampling, and where required visited by the researcher to gather additional detail from information boards on site. Where possible relevant equipment provider websites were accessed to gather additional data. To ensure data collection supported research objectives 1 and 4 (section 1.3) further searches were completed for 'accessible play park' and 'play park disabled child'.

These searches resulted in the identification of 72 new or refurbished play parks providing sufficient information to enable selection. A further 12 sites categorised as providing accessible play were identified. A review of grey literature linked to these 84 play parks identified those meeting the criteria for this investigation (local, free to use sites), were created or maintained through nine methods (Table 4.6).

Following identification of the different provision methods the identified play parks were reviewed and sub-divided into groups based on location (city, town, village) through population size and site review via Google or Bing maps ensuring each was situated adjacent to or within a residential area.

Subsequently the list was reviewed and reduced to 20 potential case study sites including four specifically designed to promote accessible play. Contact by telephone or email was made with those responsible or named as a member of a linked volunteer group. This resulted in an agreement with eight case study sites to participate in this investigation. During the investigation two case study sites withdrew requiring further

research to identify suitable sites to reflect these categories (proposed & led by local action group / full refurbishment of an existing site by local council). It was not possible to recruit a case study site to represent play parks created by property developers as, responsibility had passed to the local council, the project lead was no longer with the organisation, or they declined the request to participate.

	New provision	**Case study site**
1	Site created by a benefactor -restricted user group (children with disabilities)	(CSS1)
2	Site created for accessible play – open to all users	(CSS2)
3	Proposed & led by local action group	(CSS4)
4	Creation of new site led by local council	(CSS8)
5	Creation of play park by property developer	n/a
	Refurbishment of existing site	
6	Additional accessible equipment provision - volunteer initiated / led	(CSS3)
7	Full refurbishment of existing site - local council	(CSS5)
8	Full refurbishment of existing site - volunteer initiated / led	(CSS6)
9	Partial refurbishment of existing site - local council	(CSS7)

Table 4.6 Identified options for provision / refurbishment of play parks

The final eight case study sites are sited in rural (1), village (2), town (3) and city (2) locations varying in size between 1000m2 (CSS3) and 5500m2 (CSS5) with provision for local residents, destination park and accessible provision represented. Demographic information for case study sites is summarised in Appendix E1. This use of purposive sampling ensured that the most common methods of play park provision were represented, and that data collected would enable the research objectives to be met.

Not all types of sites containing fixed items of play equipment are included in either the initial or main investigation. This to meet the criteria set for this investigation which included availability, free to use and proximity to residential areas allowing children the

potential to access the play park without the assistance of adults. The sites excluded are summarised in Table 4.7.

Location of play park	Exclusion criteria	Rationale
School / educational establishment grounds	Not available 52 weeks of the year	School grounds have restricted access limited to term times and the school day and are only for use by those enrolled in the school.
Destination play parks (Larger facilities located within areas attracting high numbers of visitors)	Situated outside of residential areas	Access to these is restricted as they are outside of children's home ranges and therefore require adult support to access them
Hospital or clinic grounds	Restricted access criteria	These are intended for use by patients and / or visitors to the medical facility and not by local population
Retail or leisure venues (Shops, leisure centres, museums, stately homes)	Expectation of adult supervision Financial cost	These are intended for use by visitors who will either have paid an entrance or membership fee or who will have purchased goods or services
Gated or restricted access communities	Restricted access	Gated communities or areas such as Ministry of Defence Married Quarters have restricted access and therefore exclude those without permission or invitation

Table 4.7 Exclusion criteria and rationale for case study site selection

4.7 Data Analysis for this investigation

Data analysis is dependent on types of data gathered. Where a mixed method research design is employed, as within this investigation, analysis of both qualitative and quantitative data is required.

Numeric quantitative data assists researchers to infer concrete 'facts' about the subject under investigation, however this does not provide information enabling researchers to consider social constructs (Garwood, 2006). Qualitative data is non-numeric consisting of words, text and images and 'can provide rich descriptions and explanations' (Gray, 2009, p493). These two approaches require different methods of analysis.

This investigation commenced with an initial investigation gathering quantitative data, noting the presence or absence of equipment or facilities at each site. Analysis of this nominal data, where no order or ranking is implied (Gray, 2009), comprised of a frequency count of how often a category, such as a single item of equipment, was found across the sites, and the identification of values including mode and median. In line with Gray (2009) and Saunders et al., (2012) this information is presented in this thesis through tables, pie and bar charts. Creswell (2003) describes a sequential process of data gathering as one gathering qualitative data after quantitative data, however it was considered appropriate to gather both data types concurrently for the main investigation requiring two analytical approaches. Quantitative data gathered resulted in nominal data presented through tables, pie and bar charts enabling the representation of the frequency of provision of both fixed items of equipment and of play activities.

Qualitative data, text and image, requires a different approach and enabled understanding of social constructs within situations under investigation. Although data collected is non-numeric Gray (2009, p493) advises analysis should be 'a rigorous and logical process through which data are given meaning'. Dawson (2007, p119) suggests qualitative data analysis can be viewed on a continuum. Data at one extreme analysed in a reflective, inductive manner continuously throughout data collection. The opposite end of the continuum considers data in a systemic manner with codes assigned to themes and traits enabling a researcher to quantify the data. The analysis process for qualitative data is described by Saunders et al., (2012, p484) as 'demanding' requiring preparation prior to use of a computer-assisted qualitative analysis programme (CAQDAS). Data is found in different forms depending on the how it is recorded including written, audio, or video, each requiring transcription.

Principle	Rationale
Transcription	Writing up of field notes and transcription of interviews enabling researchers to familiarise themselves with the information they have gathered recognising emerging themes, patterns and relationships.
Concurrent coding	Coding of data throughout the investigation assists with familiarisation supporting thematic analysis and enabling researchers to respond to emerging themes, reviewing previously assigned codes and responding flexibly.
Familiarisation	Re-reading of notes, documents and transcripts provides opportunity for an overview of a situation without interpretation of the data. This process prepares the researcher for focused reading and in-depth analysis.
Focused reading	The initial stage of the coding process where keywords and phrases are identified. Following this relevant units of data can be attached to these codes either manually or through a CAQDAS programme both reducing and rearranging it and enabling analysis.
Review and revision	Through re-reading of data, codes identified are considered and revised, amalgamated or new codes added supporting the search for meanings within the data.
Theory generation	Considering the themes emerging from the data enables the researcher to generate theory. This inductive process enables the testing of propositions

Table 4.8 Principles of the coding process
Source: Bulmer (2006), Gray (2009), Dawson (2007) and Saunders et al., (2012)

This data, as with other textual data such as emails, is reviewed to remove typographical errors and anonymised prior to analysis in line with relevant ethical standards (Saunders et al., 2012). An interactive process by which data is collected and subsequently analysed to 'identify themes, patterns and relationships' (Saunders et al., 2012, p488). Gray (2009, p496) advises analysis of primary data requires the coding process to follow a number of principles: transcription, concurrent coding, familiarisation, focused reading, review and revision and generation of theory (Table 4.8). Within the main investigation initial qualitative data analysis was a *thematic analysis* of interview data. This is an inductive process through which themes emerge from data rather than imposed by the researcher (Dawson, 2007). This was combined with *comparative analysis* where data from different participants (within single case study sites and across all case study sites) is compared and contrasted identifying common themes. A diagrammatic outline of the data analysis utilised within each stage of this investigation is presented in Figure 4.4.

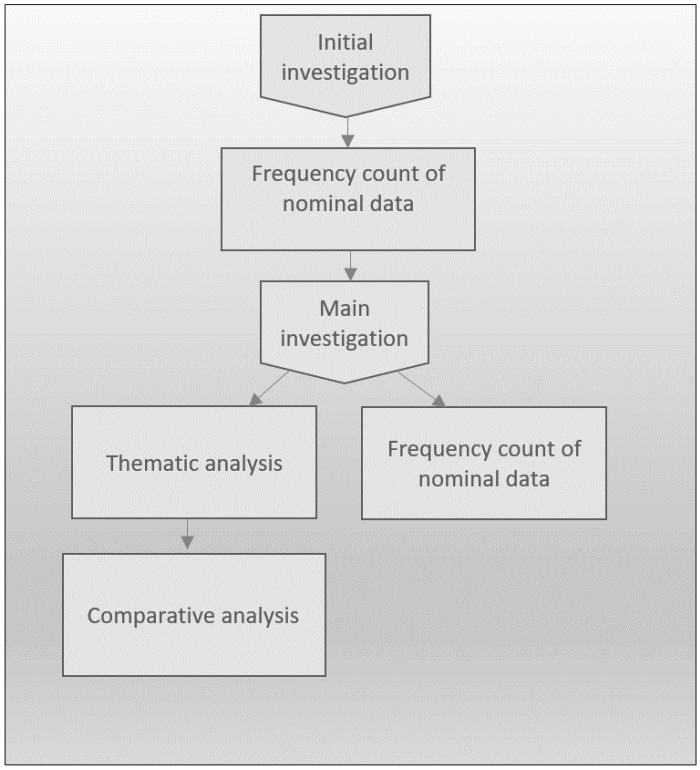


Figure 4.4 Data analysis for this investigation

The quantity of data gathered across the eight case study sites and multiple participants indicates the use of a CAQDAS programme, NVivo 10©, as appropriate, supporting management of large amounts of diverse data including transcripts, text and images.

4.8 Ethical considerations

The University of Salford requires students to conduct research in a manner consistent with prescribed ethical principles. Approval sought from the University College Ethics Panel prior to embarking on any investigation (University of Salford, 2014). Nagy Hesse-Biber and Leavey (2011, p59) are of the opinion 'moral integrity … is a critically important aspect of ensuring the research process and a researcher's findings are trustworthy and valid', and ethics should be considered throughout the research process. In applying for ethical approval consideration was given to aspects including informed consent, data protection and withdrawal from the investigation. Given play parks are for use by children their involvement in the investigation was considered; this researcher aware of additional ethical considerations related to studies with vulnerable groups and subjects under the age of 18. Enquiries were made with case study sites and, as only one had child members within the core group and their involvement within a limited timescale, it was decided the investigative focus would be the influence of adults on the design of play parks.

As part of the site evaluation process is the creation of photographic records. Consideration was given to those using play parks, confirmation provided within the ethical approval process that photographs would be taken only when a case study site was empty, or when the researcher was accompanied by a participant. No play park users would be included in images. The request for ethical approval was submitted and approval was given by the College Ethical Committee, a copy of the approval document, information letter and informed consent documentation are contained in Appendix F. As a practising occupational therapist registered with the Health and Care Professions Council and a member of the Royal College of Occupational Therapists the request submitted for ethical approval considered obligations contained within these organisations Codes of Ethics ensuring that the research proposal and subsequent

investigations were carried out in a manner reflecting the responsibilities contained within all three Codes of Ethics.

4.9 Summary

This chapter outlines the research design for this investigation justifying the selection of a case study strategy. In selecting this strategy there was a requirement to consider how data from each case study site would be evaluated in relation to the other sites. The methodological decision to consider multiple case study sites to elicit an understanding of how choices and decisions were made by those responsible for play park provision indicated a multiple-embedded case study approach was appropriate. To understand the use of items of equipment commonly found in play parks the occupational therapy technique of activity analysis was adopted. This providing a detailed analysis of the play experiences offered by items of equipment and the abilities of users needed to access these. Figure 4.5 summarises the methodological approach of this investigation reflecting the layers of the 'research onion' (Saunders et al., 2009), providing a route through which this researcher has navigated, thus enabling informed decision-making.

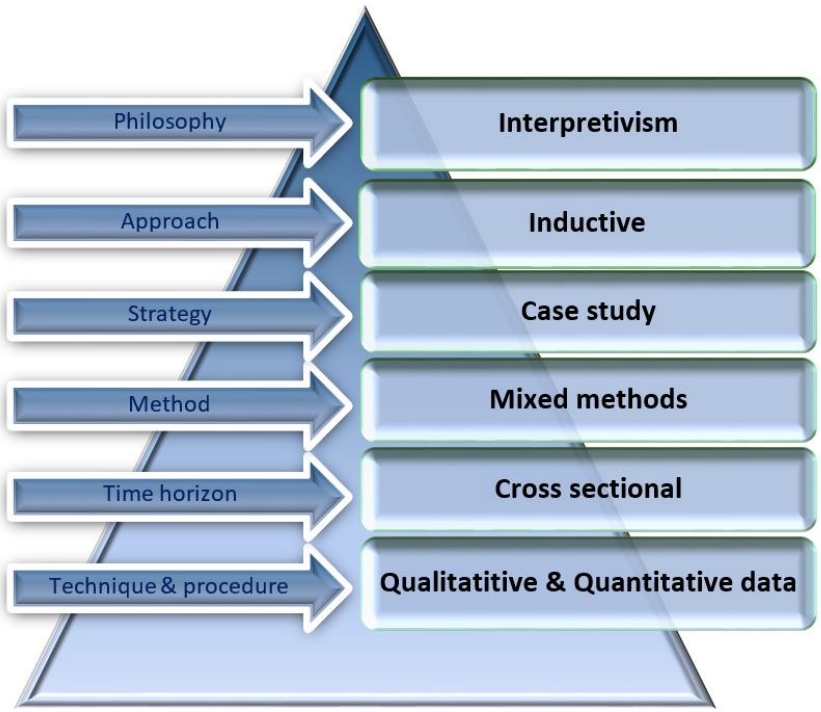


Figure 4.5 Methodological approaches adopted for this investigation

Data arising from the evaluation of eight case study sites required a method of collection which supported consistency between sites and across the timescale of this part of the investigation. This was achieved through the creation of an evaluation tool (described in the following chapter) a process supported by the literature review. This identified investigations utilising this approach enabling an understanding of their relationship with different research strategies. The use of evaluation tool within the case study strategy is supported by the research protocol ensuring the findings reported in Chapter 8 have validity and relevance to the research questions being addressed.

The relationship between the methodological approaches utilised and the research adopted are shown in Figure 4.6, which highlights how the different methods of data collection combine to support the aim of this investigation. Whilst the methodological approaches and strategies have been outlined for this investigation there is also a need to consider the role of the researcher and their relationship with the subjects under investigation. In identifying an area for investigation and creating a structure through which this will be studied a researcher has invested time and resources and therefore cannot be considered an impartial observer. This process creates a relationship between the subject and the researcher, a concept termed 'reflexivity'. Gray (2005) describes two types of reflexivity epistemological and personal. The first relates to how the research investigation and related questions affect the results. The second to how the personal values of the researcher affect, or are affected by, the process of the investigation. This researcher as a practising occupational therapist is a member of a profession which considers reflective practice a key concept. Therefore, utilising reflection to consider how the researchers actions, decisions, values and assumptions impact on the investigation is aligned with the approach recommended by Gray (2005, p499) that 'we should embrace reflexivity …in line with our attitudes towards epistemology and our principles of research design and practice'.

The following two chapters present the development and initial validation of the Play Park Evaluation Tool (PPET) with Chapters 7 and 8 presenting the findings from the initial and main investigation.

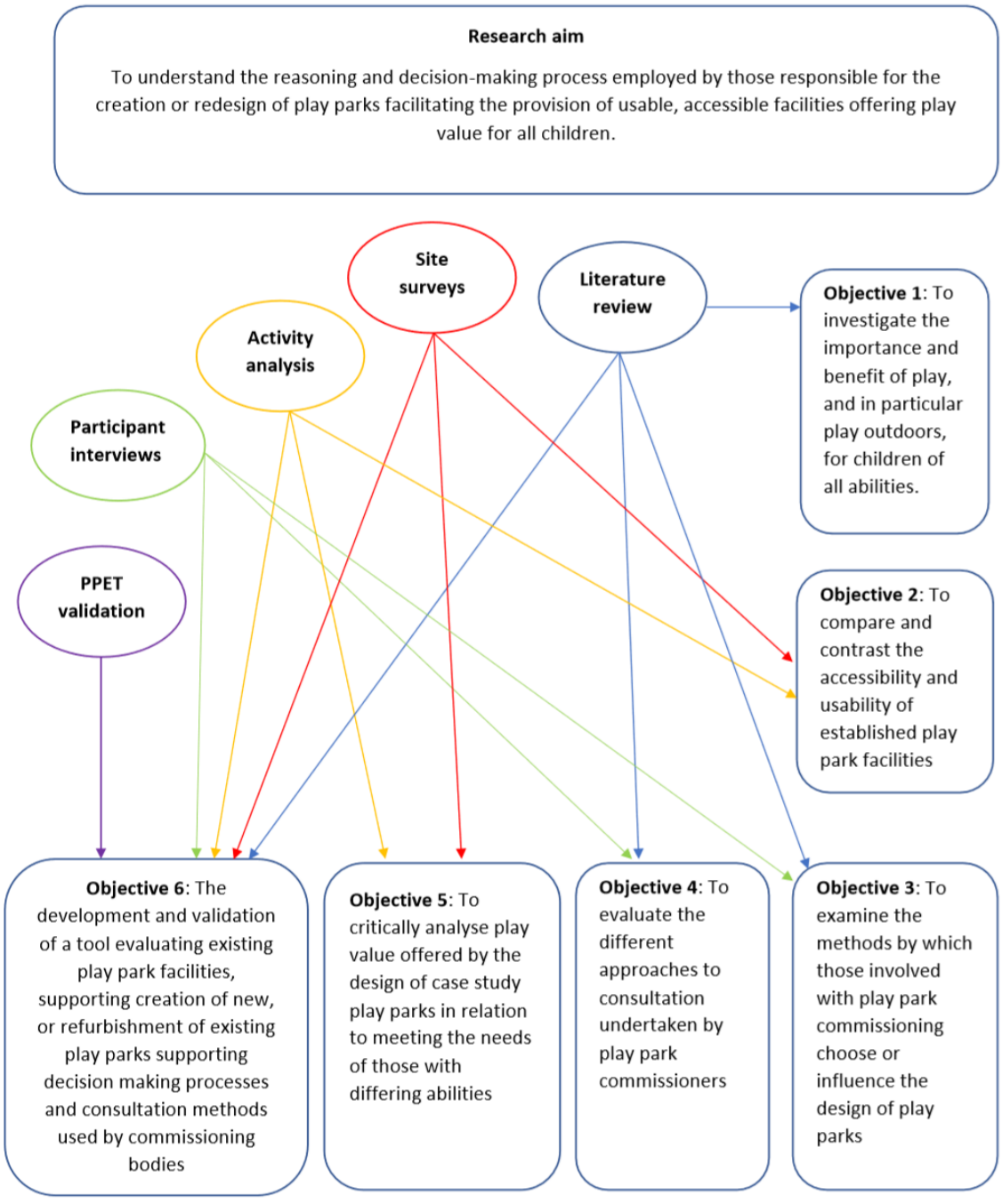


Figure 4.6 Connections between research methods utilised and the research objectives for this investigation

Chapter 5 Creation of the Play Park Evaluation Tool (PPET)

5.1 Introduction

As outlined previously data collection for this investigation required a consistent approach across both time and geographic locations. The literature review identified academic and non-academic survey tools; none capturing the breadth of data required as they either considered aspects linked to accessibility or evaluated play value. In seeking to evaluate three key aspects of provision (accessibility, usability and play value) highlighted through the literature review, PPET combines three strands of data collection providing a comprehensive overview of the case study sites. In supporting this level of data collection PPET posed a challenge in regard to the presentation of the findings in a meaningful accessible manner. The analysis of data and an iterative development process resulting in the play value infographic outlined in Appendix H.

This chapter details the information sources supporting and influencing the development of PPET. In creating PPET a design science approach to development was adopted with a review, reflection and revision cycle supporting the required alterations. Through this cycle and in application further real world and academic uses were identified, therefore within the timescale of this investigation an initial validation exercise was completed. The results of this are presented in the following chapter.

5.2 Advice and information

Effective preparation for a project requires the utilisation of information and advice to support decision-making towards the achievement of an end result reflecting the intended aim. For those proposing to create or re-furbish a play park information is available from a number of sources which are now considered.

Industry specific advice

Industry specific magazines including ‘Play and Playground Magazine’ (Playground Professionals, 2015) and ‘Australasian Parks and Leisure’ (Parks and Leisure Australia, 2015), and newsletters from industry associations (Association of Play Industries, 2015;

International Play Equipment Manufacturers Association, 2015), provide information from an industry perspective.

This, whilst informative and often dealing with current issues and topics, is designed to inform equipment providers of developments to support their business of selling equipment or services, and as such did not assist in the evaluation of other information or in identifying new sources of material.

General advice on play park provision

Practical advice on how to design a play park is readily available via the internet, most commonly from equipment providers. Typically, the advice is divided into topics such as the application of relevant local or national standards, risk and safety management, maintenance and accessibility. The advantages of these sources of advice and information include reference to relevant standards and legislation, design ideas and available options for fall attenuation ground coverings. In reviewing or using these sources of information recognition is required that this information is produced as part of a sales strategy, encouraging the purchase of a company's equipment or design service. Thus, the information should be considered as biased, written to persuade and influence the reader that a product or service is best placed to meet their requirements with limited empirical evidence supporting some recommendations. (As noted previously there is a large body of evidence supporting the management of risks or hazards, recommendations in this area evidenced through research, but as with any field opinions differing on the most appropriate solutions).

Play park equipment suppliers have introduced information on improving accessibility in line with relevant local legislation such as The Equality Act (2010) in the UK, and the Americans with Disabilities Act (ADA) (1990) in North America. Examples providing generalized advice include Sutcliffe Play's 'Top Tips' (Sutcliffe Play, 2015) in 'Designing for Inclusivity' (consider more space, overlapping falling spaces restrict access as disabled users could take longer to clear the immediate area), and Wicksteed Leisure's 'Guide to the Disability Discrimination Act' (Wicksteed Leisure, n.d.). This includes 'Steps to achieving inclusive play' (gates and gate furniture should cater for people with limited manual dexterity, mobility and co-ordination). These examples are relevant to

the UK; internationally, where support and information regarding inclusive play has been identified, the situation is similar. Provision of information is led by industry linked to play park provision, an example being Playcore, an American equipment provider, who developed '7 Principles of Inclusive Playground Design' in partnership with Utah State University (Playcore, 2015).

Independent advice within the UK is available via organisations such as Play England who provides support via publications such as 'Design for Play: A guide to creating successful play spaces' (Shackell et al., 2008); Play Wales (Play Spaces and Design, 2012), and Fields in Trust. A single online course was identified (www.acsedu.co.uk), the structure and requirement for submission of assignments indicating this is designed for those with a formal responsibility for play parks or with a role in play park design.

Guidance on inclusive play park design

Guidance on designing an inclusive play park is available to a lesser degree than regarding risk management. Internet searches return a high number of results offering formats for review (Ball, Gill & Spiegal, 2012); or services to complete risk assessments such as the Royal Society for the Prevention of Accidents (RoSPA) (2014). The online course (www.acsedu.co.uk) does not specify this as a key learning topic. Where advice is offered about accessibility it is in less depth and with less rigour and accuracy, this is demonstrated by the following notes on information on RoSPA's website:

- *The legislation referenced is the Disability Discrimination Act (1995) which has been superseded by the Equality Act (2010)*
- *Advice on mobility impairment is only in relation to wheelchair or mobility aid users*
- *Hearing impairment described as a factor which 'can cause some problems with child control'*
- *Adjustments for those with visual impairments limited to advice on managing changes in levels*
- *Broad statements such as referring to wheelchair users advising 'They also tend to have high upper body strength which can be an aid for accessing play equipment' and for meeting the safety needs of users with Autism; 'Where the area is known to be used by autistic children a second catch should be provided'*

- *Conflicting information; advice given that provision should be made for wheelchair users to get close to equipment but loose fill materials around equipment 'may allow passage for short distances (2-3m)' (RoSPA, 2014)*

This is not to say all the advice offered alongside this is poor as there is reference to the needs of carers, for children to be allowed to take risks, recognition of the need to include different types of play activity, to offer alternative options where an item of equipment is not accessible and encourages lateral thinking to identify play opportunities. (RoSPA 2014). Additional information is available supporting provision from outside of the UK, such as that from the Assistive Technology Partnership's advice sheet. This provides generalised information, but then advises 'look to your equipment manufacturer for professional experience' (Assistive Technology Partners, n.d.) increasing the reliance on equipment suppliers.

Audit or survey documentation

Existing tools were reviewed during the development of the PPET however none identified as suitable for surveying of case study sites for this investigation. Weaknesses included the focus on risk assessment, on access for those with mobility impairments, and the need to meet quotas and specifications as set out in legislation. An example includes the audit tool used by Webb (Sugradh.org, 2003); a Disability Access Audit produced by RoSPA to assist with the introduction of the DDA (1995), which used broad definitions of accessibility, allocating each a value, providing an accessibility score allocated for each site. This brief assessment identified play parks as accessible to even the most severely disabled, citing the presence of ramps and transfer platforms as sufficient provision. Surveys completed for Webb's (Sugradh.org, 2003) investigation assessing 85% of the parks as being generally accessible or better.

Where checklists / surveys were identified the scope of these varied. An alternative approach to addressing the issue of creating accessible play parks has been taken by Inclusive Play whose website states the company's aim is to:

'design, develop and manufacture quality products that enable children – no matter what their ability – to play together.'

(Inclusive Play, 2015)

To promote inclusion the website incorporates an interactive map providing information on play parks meeting the company's Plan Inclusive Play Area standard (PiPA) (http://www.inclusiveplay.com/map/), and a checklist which can be used for existing or planned provision. This survey assists with highlighting areas requiring revision, but on completion directs the user to the company for advice on resolving areas of concern or omission.

Independent advice and information in this area appear to be limited to research articles and advice created for North American play park providers. Playcore (2015) provides a generalised list based on their seven principles. This asks questions linked to these principles and encourages users to reflect on their provision. The checklist from the Institute for Human Centered Design (2011), reflects standards set by the Americans with Disabilities Act (1990), therefore this focuses on access for those with mobility impairments, and meeting the quotas of accessible units required under this legislation.

These sources supported the development of the PPET through both identification of relevant areas for inclusion and through options for the design of the evaluation tool, providing comparisons as the design evolved.

Research

Within the literature review, searches identified articles, including those by Prellwitz, Tamm and Lindqvist (2001) and Burke (2012b), which consider the provision of equipment and its impact on accessibility and usability, highlighting areas in which equipment selection impacts on less able users. These studies identify aspects of good provision as well as those where additional attention is required; but do not provide methods by which provision can be evaluated. Ripat and Becker's (2012) study considered the impact of play park design on users and carers in a single location. On conclusion of their investigation, a report was compiled summarising findings and highlighting areas of good practice. This is available as a document, written in a more

accessible style than an academic format adopted for journal articles. Access to this advice sheet, is via direct correspondence with the lead author. Whilst a request for this was met with a timely response, the information about its existence, availability, and acquisition appears only available within Ripat and Becker's article. Those who would perhaps most benefit from the advice are those who have a practical, rather than an academic interest in the subject of play park design, and who therefore might not have access to the relevant article, or who might discount this as a source of information because of its origin as an academic work. Ripat and Becker's work does however demonstrate the potential for an academic investigation to directly affect real-world design.

In considering play value the approach taken by Woolley and Lowe (2013) evaluated the impact of natural elements on play value utilising a numerical score. This approach has the benefit of providing a clear outcome of a site survey or evaluation in a format understood outside academia. However, this approach does have limitations in that the allocation of a score is based on a subjective judgement by an individual. Additionally, if a baseline score is identified indicating a minimum level which indicates an acceptable level of play value there is a possibility scores would be adjusted or manipulated to achieve this, providing an inaccurate assessment.

The information and recommendations resulting from academic research provided an evidence base against which other advice and information could be measured evaluated. Through the literature review it was possible to identify areas, such as the interpretation of terms such as 'accessibility', which had limited application in real-world situations, and how play value is identified. Additionally, alternative terminology including 'playability' and 'play richness' rather than play value was identified supporting further searches and locating additional sources of information.

5.3 Review and revision of Play Park Evaluation Tool (PPET)

The information and tools supporting evaluation of play park provision were considered but did not gather the data required for this investigation. A site survey tool was created for, and used during this researchers' previous investigation (Parker, 2010),

providing an initial format against which alternatives were considered. This site survey tool gathering nominal data focusing on aspects of provision which support access for children with mobility impairments across a number of play locations which included play parks.

This tool was reviewed and revised as advised previously to support data collection for the initial investigation. Revisions included:

Removing references to non-play park environments.
The inclusion of a checklist listing eleven items of fixed play equipment
The option to add unlisted items.
Sections to record the construction type (metal / wood / net).
Recording the installation of modular units.
A checklist of nine play activity types.

This form (PPET1) is included in Appendix B1. This investigation establishing the provision of accessible, inclusive play parks offering play value is limited, supporting the need for progression to the main investigation.

The tool used was further reviewed as the initial investigation data was recorded and the results were written up. This identified nominal data would be insufficient for the main investigation and would not support exploration of the research aim and objectives. Considering this, the tool was trialled by this researcher through use at five play parks, (excluded from the initial and main investigations) of differing sizes, across rural, urban and city locations.

This review identified the following changes were required:

The portrait orientation of the form did not provide sufficient space for comments

Additional information was required including the name of the person completing the evaluation, date, location and purpose of the evaluation.

the addition of choices which could be indicated through deletion of 'yes / no' and 'stand-alone / modular'.

Revision of the equipment section was revised with additional construction types,

An indication of low entry or accessible equipment options,

A key supporting the of recording construction types.

'Activity' was renamed 'Play Value'

Play value options increased to 16

The option to record activities were available with differing degrees of difficulty; this termed 'graded activity'

Addition of a comments box to record information not captured previously.

This revised form (PPET2, Appendix B2) was trialled at the same five play parks used previously by this researcher, allowing direct comparison of the information

Through this trial period, and discussions with PhD supervisors, it became apparent not only were further revisions required, but that this tool had the potential for use outside of this investigation to support evaluation of play parks and proposed provision. To achieve this the revisions included:

An explanation at the start of each section outlining its purpose.

Inclusion of named features, e.g. 'cycle lane' and 'bus stop' to the 'transport links' listing.

Options to indicate play types offered by equipment (social/solitary/parallel/ cooperative/ linear/tactile/ cognitive/ imaginative).

An indication if this was a graded activity.

Where appropriate, inclusion of different types of equipment designs (e.g. toddler / traditional / nest / supportive swings).

Replacement of 'graded activity' with 'No. of alternative access options / difficulty levels'.

This version was further trialled by this researcher across the five play parks used previously, minor alterations to the format made (spacing, use of bold / highlights), then trialled at a single site not previously used (and excluded from the main investigation), this final version, PPET3, included in Appendix B3.

Prior to use at the main investigation's play park sites each section was reviewed in detail by this researcher and information included in the comments section providing points to consider and justification for gathering areas of information. This detailed completion of the PPET is found in Appendix B4 (PPET4). This supported consistency of approach across the eight case study sites in the main investigation. The review and revision process is summarised in Figure 5.1. This image illustrates the progression of the evaluation tool from the original version (PPET1) and review and revision points, highlighting which version of was used at each stage of this investigation and the number of sites it was trialled at.

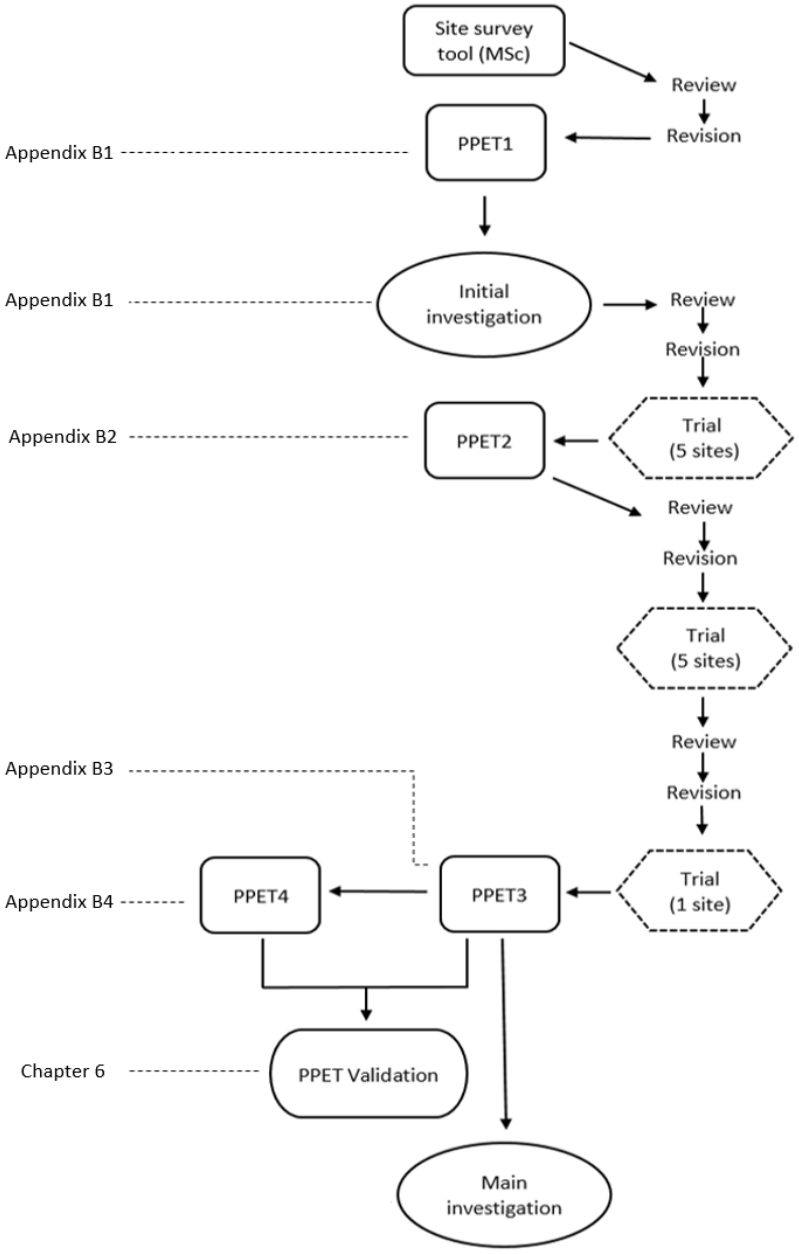


Figure 5.1 PPET review and revision process

Figure 5.2 shows the revision of the play value section of PPET from PPET2 to PPET4. PPET3 having revised column headings, two additional categories and separation of two categories previously combined. Two categories from PPET2 were removed (sitting and strength / upper body). Figure 5.3 illustrates the additional information for each category of play value. (Each of the PPET versions is replicated in full in the appendices).

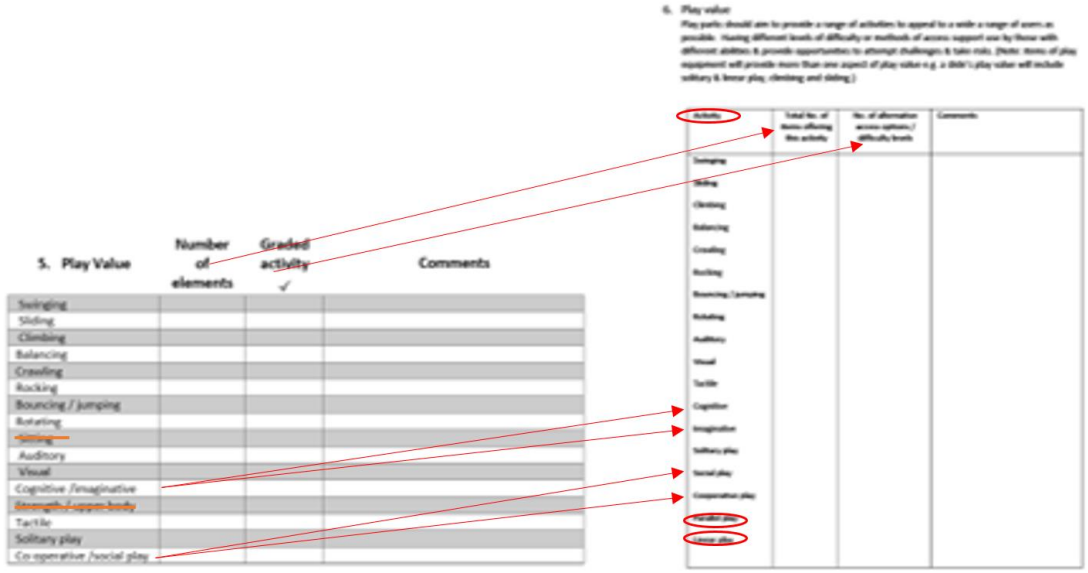


Figure 5.2 Changes between PPET2 and PPET3

6. Play value

Play parks should aim to provide a range of activities to appeal to a wide a range of users as possible. Having different levels of difficulty or methods of access support use by those with different abilities & provide opportunities to attempt challenges & take risks. (Note: items of play equipment will provide more than one aspect of play value e.g. a slide's play value will include solitary & linear play, climbing and sliding.)

Activity	No. of alternative access options / difficulty levels	Noting the number of alternative options both for access and for difficulty assists in identifying areas where play value can be added or where one aspect is over represented.
Swinging		Stimulates the vestibular system, movement can be linear or circular, swinging higher provides an element of risk taking.
Sliding		Feeling of a modified fall, body position & speed provide element of risk taking. Stimulates vestibular system & promotes balance.
Climbing		Stimulates proprioceptive receptors which provides spatial feedback. Promotes motor skills (balance, coordination etc.), upper & lower body strength & dexterity. Height provides an element of risk taking.
Balancing		Stimulates awareness of body in space & balance when standing, promotes core body strength.
Crawling		Stimulates awareness of body in space, promotes motor skills. The increased body contact with surfaces gives a greater tactile experience.

Figure 5.3

Extract from play value section PPET4 illustrating the additional information provided

5.4 Summary

Supporting effective data collection, the development of PPET provided a structured approach which ensured consistent collection and recording. Reviewing existing tools for evaluating play park provision alongside relevant academic literature provided a foundation for this tool. The revision process enabled reflection on the aspects of play park provision which are key to the delivery of high quality play experiences; identified as accessibility, usability and play value.

These aspects are used within this investigation as comparators between play park sites, but the evaluation tool was identified as having potential for use outside of this context. Therefore, an initial validation exercised was completed the results of which are outlined in the following chapter, and the potential for its future development outlined in Chapter 10.

Chapter 6 Validation of PPET

6.1 Introduction

As described in the preceding chapter the PPET has potential as an evaluation tool, either for academic use, by those seeking to evaluate current provision or in the development or refurbishment of a play park. Preparation for use outside of this investigation required consideration of two aspects, that the data collected was relevant and to ensure consistency between users. To achieve this feedback from academics and professionals involved with play park provision was sought regarding PPET content alongside an inter-rater evaluation exercise at a nominated play park. The process and outcomes of this initial validation step is outlined below. This exercise completed concurrently to the case study site evaluations and therefore not contributing to the initial and main investigation but with relevance to the contributions arising from this study.

Validation of PPET

For this investigation data was collected and recorded by a single researcher, and therefore did not require consideration of inter-rater validity. Additionally, the original purpose of PPET was only to facilitate data collection for this investigation, therefore structured in a format and using terminology complementing this researcher's approach to data collection. In use it was identified that PPET had potential to be employed outside of this investigation with both real-world and academic applications. Confirmation this evaluation tool was effective in capturing data in a format suitable for use outside of this investigation required a validation process. The timescales of this investigation did not support completion of a full validation cycle including revisions resulting from feedback and comparison of data collected. Therefore, the validation process completed is considered the initial step and comprised of two parts; feedback on PPET 3 and 4 from individuals involved with playpark provision (professionals, researchers and representatives from case study sites) and use of PPET3 by 10 participants at a single play park site. PPET3 is a blank version of the tool with minimal advice and information provided. PPET4 is the identical format but with information appended outlining aspects of provision relevant to each section. The validation results

are outlined below and the implications of these reflected in both the discussion and conclusion chapters.

Professional / researcher feedback

Copies of PPET3 and 4 were forwarded to 25 individuals (validation participants: VP 1 to 25) directly involved with play park provision (volunteers, council officers and equipment suppliers), to those providing play parks support (employed by bodies supporting access to play including Play England and Play Scotland) and to international researchers (Australia, Sweden, Canada and New Zealand and Ireland) who have completed relevant investigations. Ten responses were received, four from researchers, four from play park providers and two from those offering support through advice and information.

Feedback was positive in all but one response, this being from a researcher (VP3) who advised whilst the tool gathered information it did not include the 'lived experience' of the play park users', which in their experience was 'essential in providing effective provision'. This tool was not intended to gather this type of data as it is a record of a specific point in time. Eliciting the thoughts and feelings of those using play parks is more appropriately gathered through consultation methods designed to be accessible to the target population. All respondents commented that the level of information and areas covered in the evaluation tool were extensive, describing these as 'thorough' (VP7), all-encompassing (VP5) and 'potentially useful' (VP4). Respondents focusing on accessibility and inclusive play (VP6, and 10) advised they would prefer a greater emphasis on ensuring these aspects were highlighted, whilst acknowledging PPET was designed as a tool to cover wider aspects of provision.

The need to clarify accessibility, usability and inclusive play as well as indicating the target age-range of a play park was highlighted by VP1 as an area for development, as this only summarised briefly in PPET 3. Although PPET4 contains detailed information this is not a format suitable for use during an evaluation as it is overly detailed. VP5, an equipment supplier representative commented PPET would be a tool which they would recommend to clients; suggesting an interactive website might provide an accessible format for the evaluation tool and information to support its use. How the information

gathered through PPET was used was challenged by VP2 who considered the tool to be comprehensive; but asked how it would be interpreted to support play park provision.

Responses from international respondents (VP 1, 2 and 10) advised terminology used was, in some instances, UK specific and might lead to misinterpretation. Additionally, advice on areas such as fencing reflected local attitudes to provision but might not be considered relevant internationally. Three respondents indicated that PPET4 terminology might need reviewing to support use by those outside of the play industry, non-academics and without professional qualifications such as those linked to Allied Health Professions. This feedback indicates further revision of PPET3 is required, plus consideration of its purpose; primarily for UK settings, or applicable for international use.

Inter-rater reliability

Consistency of recording data for both the initial and main investigation was maintained as all play park evaluations were completed by a single researcher. Effective utilisation outside of this academic investigation requires inter-rater reliability. This enabling use of PPET by more than one individual at a site, and for the information recorded to reflect responses based on a similar interpretation of the PPET. Time constraints prevented completion of a full validation cycle of PPET, however an initial trial at a nominated play park was completed to consider if the current PPET format was suitable for further revision. A convenience sample of 25 participants was recruited for this validation exercise, each provided with a copy of PPET3 but without instruction on how this document should be completed. Appendix C1 contains a table summarising the 25 participants.

Completed copies of PPET3 were received from 10 participants aged between 18 and 60, (8 female, 2 male). The average time participants spent completing the form was 27 minutes, the shortest 18 and longest 35 minutes. This researcher completed the form in 10 minutes however this is both a form and play park she is familiar with. Participant completed copies of PPET3 were compared with the site evaluation completed by this researcher. This enabled identification of areas where data was consistently recorded, and those where there was misinterpretation or misunderstanding of the type of

information requested. Although PPET4 contains an explanation of what information is sought within each section of the tool, this was not provided as the additional explanations would not have highlighted the areas where revision is required; this exercise a preparatory step for further validation.

Play park used for PPET validation

The play park selected for the first stage of the validation process was known to the researcher through inclusion in site reviews for the MSc investigation (Parker, 2010). The site (Figure 6.1) is set within a housing estate and is compact (400sq m), containing three individual items of fixed play equipment (toddler swing unit, rocker and roundabout) and a modular unit with slide, tunnel, bridge, incorporating a small play structure. Within the enclosed site are two park benches, sports equipment (air-walkers) and a waste bin. The site is adjacent to a green area with a pathway leading from the closest roads (each approx. 40m from the site entrance).

Figure 6.1 Play park used for first stage validation

6.2 Findings

Data from participants' evaluation forms was compared with the researchers' form, this being considered a control. Entries recorded as either being consistent with or differing from the control. A summary of the findings is found in Appendix C2. Review and comparison of the data identified that of the 58 applicable headings participants' responses were only consistent in 12 instances (20.6%), these all within sections 1-4 considering non-play aspects. Within section 5 (play equipment) there was little consistency of responses on play type and the design of equipment (modular / stand-

alone), including the difference between a toddler swing, nest or supportive swing. The following section (play value) had a higher rate of consistency when identifying the number of items providing an activity, but the second column (number of access options / difficulty levels) had a low response level. Where this was completed it differed noticeably to control responses in 14 of the 18 activity options. Some of these issues may have arisen because the participants were a convenience sample completing the activity on the researchers' request. Completion by individuals who were actively involved with evaluation of a play park may have provided different responses or interpretations. This subjective interpretation of information similar to that seen in the completion of the PARCS tool utilised in the evaluation of play park provision in New Zealand by Perry et al. (2018). Overall responses from respondents and participants were positive indicating that this tool has potential to support decision-making for play park provision. Verbal feedback from participants highlighted the need for additional information to support its use.

Following this initial validation stage proposed alterations to enhance inter-rater reliability of PPET include:

- Clarification of the scope of each section – answers regarding the surrounding area included data on items set within the park boundary
- Separation of the non-play and play aspects into two forms
- Clearer definition between headings within sections
- Additional information in the headers of each section, and for some sub-headings which were misinterpreted (e.g. Section 2: fencing – safety, Section 4: lighting- indirect lighting)
- Section 5 – information explaining different play type options and how these are supported by items of play equipment
- Section 5 - instruction to highlight / strike out applicable play types for each equipment type
- Clarification of some types of fixed play equipment – introducing images to aid selection
- Replacement of 'access' as an option within 'roundabout' to clarify meaning
- Section 6 – Clarification of the type of information requested

- Inclusion of images to assist with identification in some areas
- Possible website link to provide the level of information required

Linking PPET data on play value to the play value infographic (Appendix H) will provide a visual representation of play value offered, identifying areas where additional equipment will enhance play value, accessibility and usability. Further validation steps have been identified to assist with refining PPET. Review of PPET4 terminology as noted would support its use alongside PPET3 as will inclusion of images for key areas. How this additional supporting information is provided requires consideration as PPET4 consists of 11 pages without data from site evaluations added. Further use at the nominated play park (Section 6.1) will enable comparison with data where additional information is provided. The use of PPET at a play park undergoing evaluation by those actively involved with a project will provide feedback from those with a declared interest in the enhancement of a play park and who will have a different approach to the validation exercise.

6.3 Summary

A tool to support the evaluation of play park provision provides a way in which individuals involved with projects can assess current and planned provision, recording data in a consistent manner. Highlighting areas where play activities are over represented as well as those which are not currently supported facilitates discussion. This in turn supports decision-making potentially leading to provision with increased play value. Whilst effective in evaluating play parks the tool does not offer a method of representing the resulting data. For this investigation this has been achieved through the development of an infographic illustrating the results, summarised in Appendix H. Development of this link will further enhance PPET's ability to both gather and illustrate information.

The current PPET requires review and revision, at this time it is best described as having potential, but a work in progress.

Chapter 7 Initial investigation

7.1 Introduction

In the context of this investigation the preliminary stage of the research, the initial investigation, creates a baseline from which the research aim, objectives and questions are considered and supports methodology selection for the main investigation. As such, this precursor to the main investigation is a 'pilot study' investigating the current situation in play park provision across a small sample. The methodology and processes of the research completed with the same ethical and design standards as the main investigation. The term 'initial investigation' is used for continuity even where a source uses the term 'pilot study'. This chapter offers the methodological foundation for the initial investigation linking to the methodology detailed previously, outlines the relevant objectives and discusses the criteria for site selection as this differs from the main investigation. Having established this the chapter continues detailing the aspects covered in the site surveys and concludes with the findings of this stage of the investigation preparing for continuation to the main investigation.

7.2 Purpose of an initial investigation

An initial investigation is an opportunity for a researcher to review the design of their research approach, evaluating and adjusting data collection tools. There is a need to 'ensure that all tools match the original hypothesis and research objectives' (Gray 2009, p251). Whilst an initial investigation has defined boundaries, such as the number of questionnaires circulated, or for this investigation, sites audited; its' intended purpose is to inform a larger or more detailed investigation. This is a preliminary, or early part of a linear research process (Davies,2006b). The initial investigation is an exploratory enquiry designed to identify if the selected area of investigation is valid, or if the evaluation tool to be used requires revision. Saunders, Lewis and Thornhill (2012) advise in these circumstances a non-probability sample is most practical, and refining research tools through piloting, ensures collection of relevant data increasing reliability and validity of results. They also advise the size of sample chosen will depend on variables, such as resources available to a researcher and the size of the target

population for the main study. Whilst an initial investigation is of a small scale it is however emphasised it is an important part of any investigation. Therefore, in this instance a snowball sample, not representative of the end user population, is appropriate as this initial investigation is intended to guide rather than to draw definitive conclusions.

7.3 Reasoning for inclusion of an initial investigation

This researcher's previous MSc investigation considering opportunities for physical play opportunities for mobility impaired children within Lincolnshire (Parker, 2010) included access audits of play parks. These highlighted gaps in play provision for this population. This, as noted in the introduction to this thesis, led to the commencement of this investigation. A review of the literature identified investigations investigating this area had been completed. These utilised differing research strategies and methodologies, including phenomenological investigation (Burke, 2009), interview (Prellwitz & Tamm, 1999; Prellwitz & Skår, 2007) and questionnaire (Prellwitz, Tamm & Lindqvist, 2001). A revision and refinement of the research aim led to a focus on influences on decision-making by those responsible for commissioning play parks.

7.4 Objectives for the initial investigation

Although the initial investigation provides data intended to support and inform progression to the main investigation, not all the objectives listed in the introduction to this thesis are relevant. A review identifies the following objectives as applicable to this phase of data collection:

- To compare and contrast the accessibility and usability of established play park facilities
- To evaluate the different approaches to consultation undertaken by play park commissioners
- To critically analyse play value offered by the design of case study play parks in relation to meeting the needs of those with differing abilities
- The development and validation of a tool to evaluate existing play park facilities, supporting the creation of new, or refurbishment of existing play parks

supporting decision-making processes and consultation methods used by commissioning bodies

Each of these objectives is linked to the evaluation of play park sites contributing to the development of an appreciation of current provision. The data from this initial investigation evidencing a need to examine in more depth the methods by which play parks are established, and how this process is influenced by those with responsibility for provision.

7.5 Sampling and criteria for initial investigation sites

The delay between the original access audits (2010), and this investigation (2014) indicated an initial investigation appropriate for the primary phase of this investigation. It was feasible, but unlikely, in the intervening time the situation in regard to play park provision may have altered and access to, and facilities in, play parks may have significantly improved. Data from a snowball sample can be considered indicative of the current situation; and, as an initial investigation there was no expectation the data gathered should be comparative to a wider sample.

Play parks are found in most areas of the built environment; in rural, urban and city locations. Therefore, as Lincolnshire offers each of these locations, a non-probability sample of 20 play parks within this county was considered appropriate. The sample reflects Lincolnshire demographics as a large rural county with one city, approximately 15 market towns and numerous villages and hamlets. Figure 7.1 shows the distribution of sites between the three types of location.

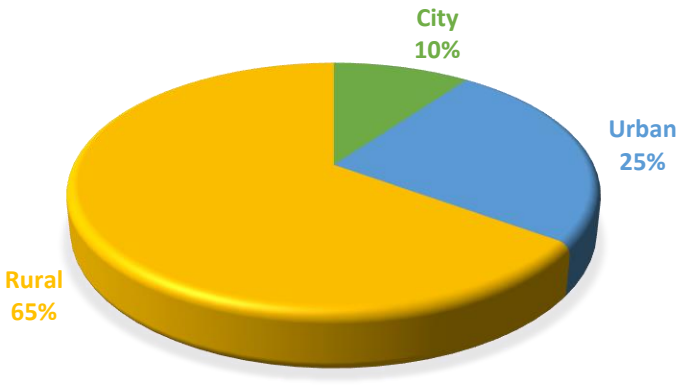


Figure 7.1 Distribution of initial investigation sites.

The criteria for selection of initial investigation sites considered their location within Lincolnshire; selected from all areas of the county. 50% of sites had been audited previously as part of the earlier study (Parker, 2010). This inclusion enabled comparison between the original survey and the initial investigation. The remaining sites were selected to ensure the sample reflected the county's demographic; identified either by researchers' personal knowledge of their location, or through recommendation. In addition, the selection of initial investigation sites took into consideration the number of play elements within each location. These varied with one site containing a single play element to two sites with over 21 elements, distribution illustrated in Figure 7.2.

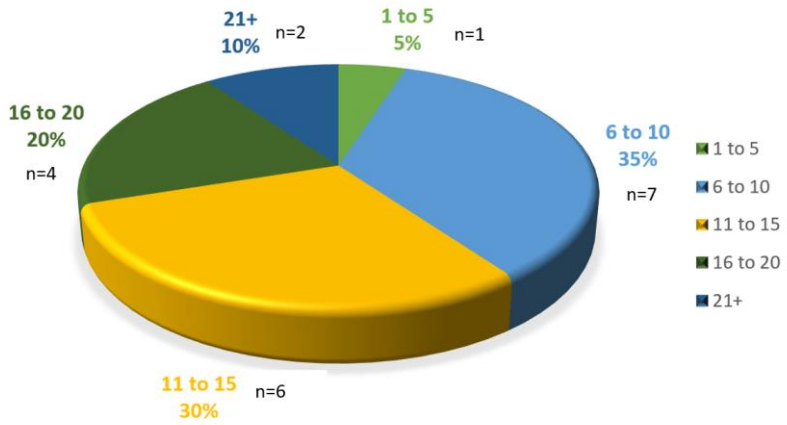


Figure 7.2 Percentage of play sites / number of fixed play elements

7.6 Aspects considered within initial investigation site audits

The initial investigation audits focused on identifying the presence or absence of features or items generally expected in play parks. Aspects considered included those impacting on accessibility (parking, pathways, surface finishes etc.), influences on usability (graded activities and physical and visual cues), and play options (number of different sensorimotor activities and opportunities for solitary, social or imaginative play). Also noted were features found within the sites which were less common or unexpected. A copy of the survey tool (PPET2) used is found in Appendix B2 and a table summarising the data from the 20 initial investigation sites can be found in Appendix J.

To complete surveys a toolkit comprising of the following items was used (Figure 7.3):

- Waterproof folder / clipboard
- Blank copy of evaluation form
- Pens / pencils
- Aerial site view
- Ordnance survey map
- Compass
- 5m steel tape measure
- Camera

Figure 7.3 Toolkit for site surveys

7.7 Initial investigation key findings

Access

- All sites had pedestrian access close by, with 13 (65%) sites having parking areas adjacent, however only four of these provided accessible parking bays. Two sites were located close to bus routes. No other forms of public transport served the initial investigation sites.
- 13 (65%) sites had pathways leading to the play park entrance(s) with remaining sites being accessed over grassed areas.
- Traffic flow adjacent to the initial investigation sites was low at 11 (55%) sites, medium at 7 (35%) and high at 2 (10%). Low traffic flow being in a rural location or cul de sac, medium within housing estate or side road, high being a main route to, or through the area with a constant traffic flow.

- Internal surface finishes included wet pour rubber, rubber tiles and grass, wood chip. A single site had a single even surface throughout, 10 (50%) had a mix of surfaces, which provided a continuous even surface, and 9 (40%) sites had an uneven grassed surface throughout the play area.
- 18 (90%) initial investigation sites had level access throughout. This reflects the geography and topography of Lincolnshire which has fens and reclaimed marshland as a high percentage of its area.
- Gates and fencing restrict access to 15 (75%) of the initial investigation sites.

Equipment within initial investigation sites

Although play parks are facilities designed for children's play promoting active behaviours, there is recognition of a need for opportunities to rest between periods of exertion, and seating for those supervising children. Seating was available at all initial investigation sites (Figure 7.4), the majority of sites offering more than one seating type. Offering a choice of seating with differing designs potentially meeting the needs of a higher number of users than when a single design is offered.

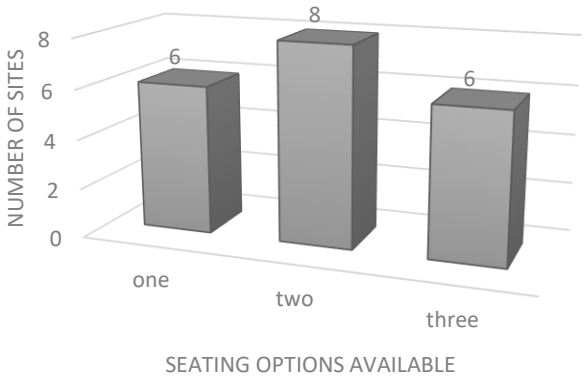


Figure 7.4

Number of seating options available at initial investigation sites

Distribution of play equipment between sites was evaluated, the most common equipment being 'traditional' fixed items: swings, slides, seesaw or rocker and climbing frames. Introduction of modular units incorporating climbing frames and slides includes the use of bridges linking sections and play equipment. Where identified audits noted

play equipment separately from modular units. Figure 7.5 outlines the frequency of equipment provision across the initial investigation sites. Play equipment specifically designed for users with a disability is commonly described as 'accessible' equipment. Throughout the 20 initial investigation sites this type of equipment was found in three (15%) sites; one site having both an accessible roundabout and swing, and each of the other two sites having either a swing or a roundabout.

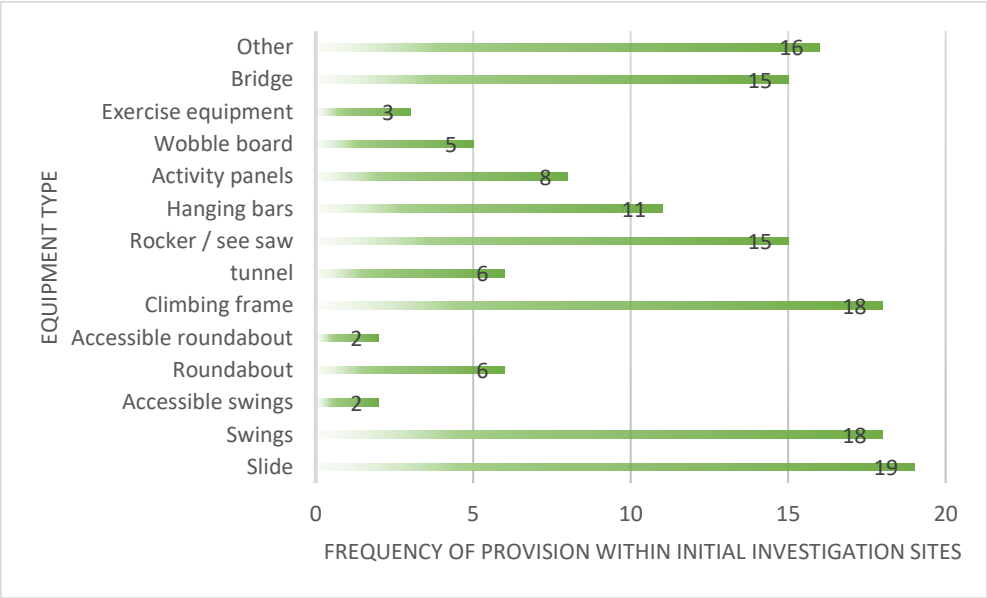


Figure 7.5 Frequency of equipment provision: initial investigation sites

At this point in the data analysis it was understood that further evaluation was required to understand the effectiveness of the initial investigation sites in providing play opportunities for users of all abilities; 'play value'. This analysis considered the variety of activity options offered by the fixed items of equipment at sites and was required as some sites offered a limited selection of activities even though they had a higher total of individual items of equipment. This illustrated at site 9 where eight out of eleven play options offer balance as an activity. Some items such as traditional swings offer a single activity, i.e. swinging forward and back, whereas a modular unit may offer options to climb, crawl, hang and balance. The findings of this further analysis are summarised in Figure 7.6.

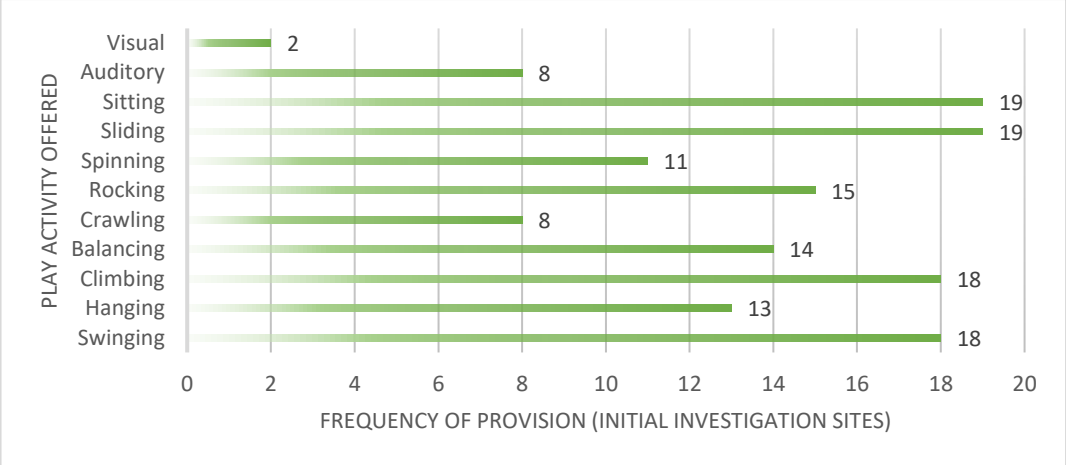


Figure 7.6 Frequency of play activity options: initial investigation site

All sites focused on climbing, swinging and sliding; alternative play types were less well represented. Few sites offered graded or alternative options for the same activity such as a ground level tunnel and a higher open option requiring increased physical ability and risk-taking. (Figure 7.7). Nor were graded options for access to equipment provided (e.g. ladder / ramp / step access to a slide) as standard as illustrated in Figure 6.8.

Figure 7.7 Graded tunnel options

Figure 7.8

Three access options for a slide

Although only three sites offered equipment designed specifically for those with additional needs, the initial investigation identified items including nest swings, speech tubes or multi-seated rockers (Figures 7.9 to 7.11) which offer more accessible play options. However, it appeared their provision was co-incidental, as was the inclusion of any auditory or visual play equipment.

Figure 7.9
Nest swing

Figure 7.10
Speech tube

Figure 7.11
Multi-seat rocker

7.8 Summary

This initial investigation whilst preparatory in nature required the same level of rigor in design and completion as the main investigation and therefore reflected the philosophical approach and research strategies detailed in Chapter 4. Audits of initial investigation play parks highlighted the disparity between sites of similar size or serving similar populations. Furthermore, the lack of accessible equipment, low levels of play value found and limited options for graded activity confirmed there had been little or no improvement in the play park provision in Lincolnshire since the completion of the previous investigation (Parker, 2010). Play parks are a provision which almost always result from decisions considering which elements should be included in a final design. This decision taken by either by an employee or a committee of officers from a responsible body, or a group of volunteers. The findings of the initial investigation reflect the results of investigations including those by Prellwitz & Skår (2007) (accessibility and usability) and by Woolley and Lowe (2013) (play value) in that there is not a consistent high standard of play provision. These findings whilst not discussed in detail in the results chapter serve to inform the development of PPET, the completion of the main investigation and are reflected in both the discussion and conclusions drawn at the end of this thesis.

Chapter 8 Results from the main investigation

8.1 Introduction

This chapter presents the results for the main investigation. The outline of the results commences with summaries of eight case study sites providing a context for the subsequent information. Within these site summaries are descriptions of each play park and its location plus a brief history of play provision in this location including the ownership of the land. These summaries include data on the number of items of play equipment installed, the frequency of play activities identified, a play value infographic illustrating the level of play value highlighting the number of accessible options and conclude with information regarding the user groups most frequently visiting the site (as advised by the interview participants).

The chapter continues with the results from the main investigation commencing with those linked to the development of the site including aspects relating to the wider setting. The activities and facilities found in the vicinity of a play park will influence patterns of use and thus are considered prior to results linked to the community for whom the facility is created. Having considered these the chapter reports results connected to the play park's providers or responsible organisations and the aspects over which they have influence and barriers which impacted on their planned provision. When planning or refurbishing play parks decisions are made on how play will be supported, including what equipment will be provided, surface finishes used and the overall appearance of the area. The approaches utilised are identified and the outcomes of these illustrated including the adoption of themed play. The purpose of play park provision is to provide a facility for play; the results from the site evaluations are provided within the context of play types and play value in the concluding section of this chapter. A diagram (Appendix K) highlights the links between the themes from the literature review and interview data. There are similarities between the identified themes, but it is of note that differing emphasis is placed on these, participants adopting an approach with limited scope illustrated by four key themes; play, the play park site, community and development; whilst the literature review highlights wider aspects which impact these themes. These differences are explored further in the discussion chapter. Access to, and time spent in case study sites varied, in part due to the distance

from the researchers' home, those closer being easier to re-visit to gather additional information. CSS6 and 8 were re-developed during the course of the investigation therefore subsequent visits were required to gather additional data once the project was completed. Table 8.1 details time spent / number of visits, the number of participants and the sources of written information for each case study site.

CSS	Time spent on site survey (minutes)	Participants (face-to-face)	Participants** (email / phone)	Written data sources			
				Print media	Websites / Social media	Minutes / meeting records	Other
1	90	1	0	✓	✓		✓
2	120	1	1	✓	✓		✓
3	90	1	2	✓	✓		✓
4	100	2	0	✓	✓	✓	✓
5	90	1	0	✓	✓		
6	240*	1	2	✓	✓		✓
7	75	1	0	✓			
8	240*	1	1			✓	✓

*Subsequent visits required on completion of projects. ** Does not include follow up emails with face-to-face participants

Table 8.1 Case study sites: summary of time spent and data sources

8.2 Case study site summaries

Case study site 1

Geographic location

The play park is located in the west of England, 1.5km from a market town with a population of approximately 6,500. The area around the park is rural; grazing and woodland, with a village, population 370, close to the entrance to the play park.

Site access

The play park has a dedicated parking area accessed from a B class road, a main access routes to the market town. Due to the vicinity of the road access to the play park is via a locked gate. Adjacent to the car park is an amenity hut with a toilet and washing facilities.

The main play park area is accessed via a 1m wide pathway, the first item of fixed play equipment approximately 60m from entrance. The site is approximately 3.5 acres, mainly grassed and with slopes and changes of level throughout. Access to the site is not highlighted at the roadside, directions available from the play park's website.

History

The play park was established between1984 and 1987, the land gifted by the then landowner and initiator of the project. The area was originally rough pasture now landscaped and developed to provide different areas of interest. The introduction of fixed elements is an ongoing process with the pathway, wet play area and sandpit the first installations. The land is leased to the charitable trust and is due for review in 2034.

Play park group / responsible organisation

The site is run by a charitable trust which was established in 1987.

Group aims

The aim of the play park founder was to provide a place where disabled children can play with families and friends in non-judgemental surroundings. This remains the ethos of the trust running the site. The site is designed for children with a disability who are accompanied by friends and family. There is a nominal administration fee (£10) following which the code for the gate is provided, after this there are no further fees attached to membership which is renewed automatically each year.

Site description

Access is from the dedicated parking area along a 1m width pathway with the site bounded by 1m high fencing. The pathway traverses the centre of the play park ending at the water play and hide area with two 'loops' on the upper slopes (Figure 8.1). This providing access to the items of equipment installed in these areas. There are mobile items of equipment and seating including go-karts, trolleys, sand play equipment and large beanbags which are stored in sheds adjacent to the sand play area. The site is grassed with mature trees and willow tunnels and screens. A natural spring provides

water for a fenced water-play area and a wildlife pond. The pond is set just outside the play park boundary fence for safety overlooked by an accessible hide.

Figure 8.1

Aerial view of CSS1 with local facilities highlighted

The individual items of equipment installed within the play park are listed in Table 8.2 showing the total number present, this includes multiple items of the same design. Where provision includes designs supporting access for those with different ability levels this is indicated under 'graded options'.

Item of equipment	Total no. present	Graded options
Swing	6	✓
Slide	1	
Climbing frame / unit	6	✓
Balance Beam / bridge / trim trail components	1	
Tunnel	0	
Rocker / Seesaw	3	✓
Trampoline	0	✓
Roundabout / Rotation pole	0	
Monkey / hanging bars	2	✓
Auditory	0	
Visual	1	
Activity panel / play structure	3	✓
Interactive (sand / water)	3	✓
Specialist	3	

Table 8.2 Equipment installed CSS1

Figure 8.2 summarises both the play activities these items offer and the frequency these are found on the site (some items of equipment will provide opportunities for more than one type of play activity).

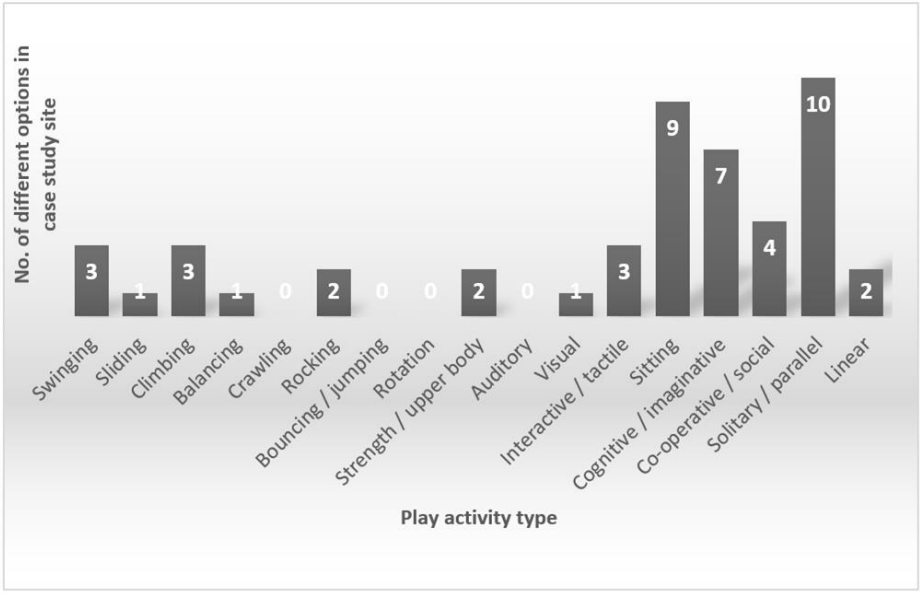


Figure 8.2 Frequency of play activity CSS1

Analysis of the site survey results considering play value offered are summarised in Figure 8.3 highlighting areas where accessible equipment is installed. The organic development of the play park results in additional elements added as funding becomes available; their selection reflecting the focus of those leading the fund-raising, or the intention of those donating time, skills, equipment or funding. The play park reflects its rural setting with the use of natural items such as willow structures and wooden buildings.

The play equipment is traditional in style; accessible elements such as supportive swings and ramped access to the hide and sandpit included. The addition of 'safe spaces' for solitary play or 'de-escalation' through shelters or quiet spots supports the needs of those with autism and challenging behaviours.

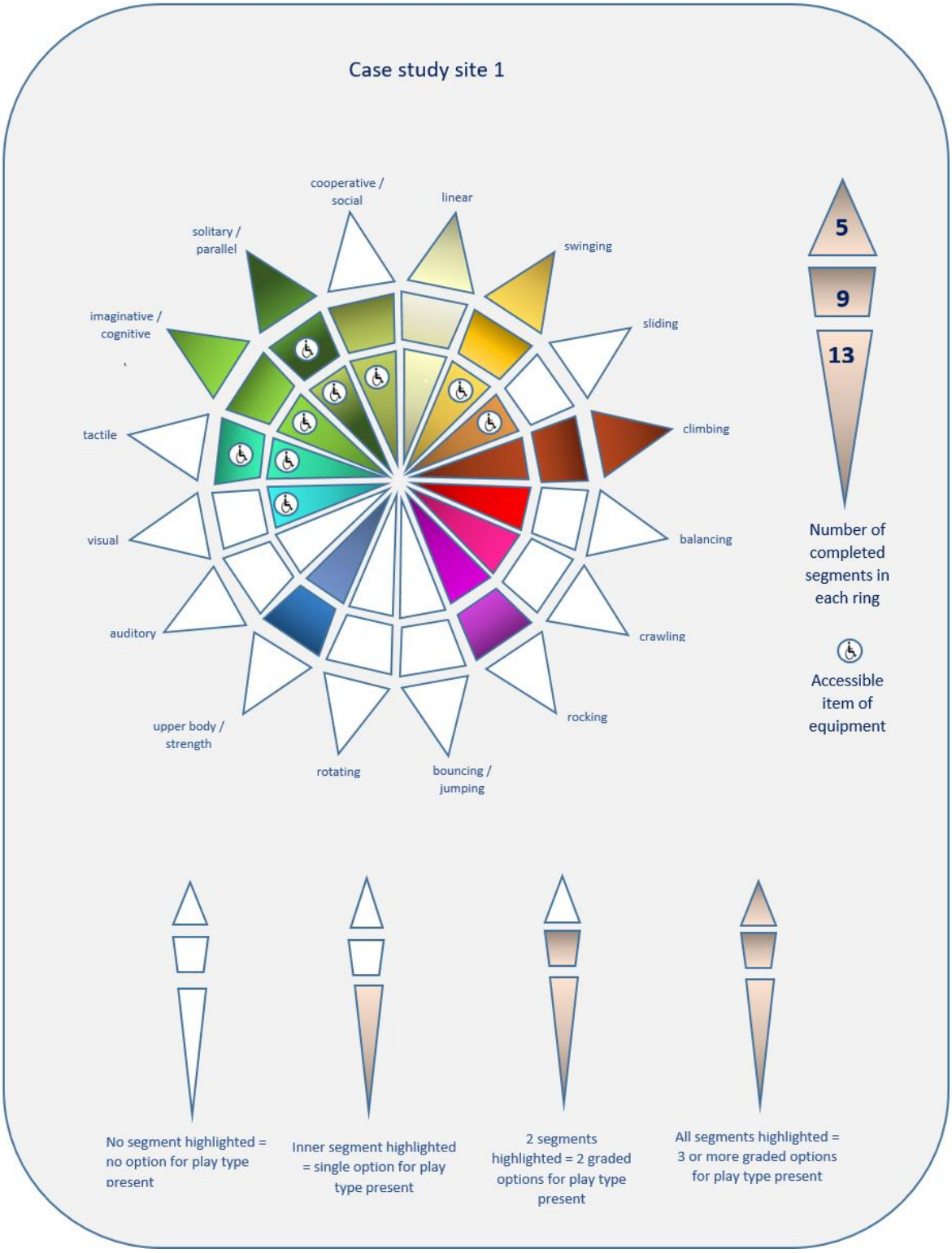


Figure 8.3. Play value infographic CSS1

Throughout the site there are options to sit with designs of seating providing different levels of support, proximity to others and alternative viewpoints. These include park benches, accessible picnic benches, individual chairs and outdoor beanbags. The seating is available in a variety of sizes with smaller options moved around the site as required.

User group(s)

The site is used by children with disabilities who are accompanied by their families. Within this group the main users are those with a learning disability or challenging behaviours. The play park is also accessed by special needs schools and by family groups for events such as birthday parties. The location and the access arrangements require children to be accompanied by adults, however the internal design of the park allows for the level of supervision and oversight to be adjusted according to a child's needs or abilities. To support use by those with additional needs a site map (Figure 8.4) has been produced reflecting the type and position of items of equipment, this assisting those without verbal communication to indicate preference, and the planning of activities within the site.

Figure 8.4 Site map CSS1

Case study site 2

Geographic location

The play park is situated within a city in the south west of England with a population of approximately 120,000 people; located approximately 3.5 km south-east from the city centre.

Site access

The play park is situated within an area of green space owned by the city council with areas of landscaping including mature trees. There are football and rugby pitches and tennis courts within the wider site. Two areas of car parking are sited adjacent to the green space, and the public toilets onsite are within the closest car park which is 100m north of the play park. The green space is bounded to the south by a main arterial route into the city (40mph speed limit), and by housing. The majority of housing closest to the site is owner-occupied built between 1900 and 1930. Linked to the site, by a foot bridge over the dual carriage-way, is an estate predominately consisting of social housing. A further development of housing estates is underway adjacent to this. Within a 1 km radius there are two schools, one mainstream primary school and one special needs school for children aged 11 to 16.

There are bus routes supporting access to the site, the closest bus stops are over 200m from the site entrance and situated on the opposite side of the road. Car parking for the green area is sign-posted from the road but does not highlight the play park location. This information is available from the website. Information boards at the play park entrance advise who is responsible for the facility with a contact number provided, opening hours, restrictions of use, the presence of CCTV and instructions for operating the gate lock. Key access points are illustrated in Figure 8.5.

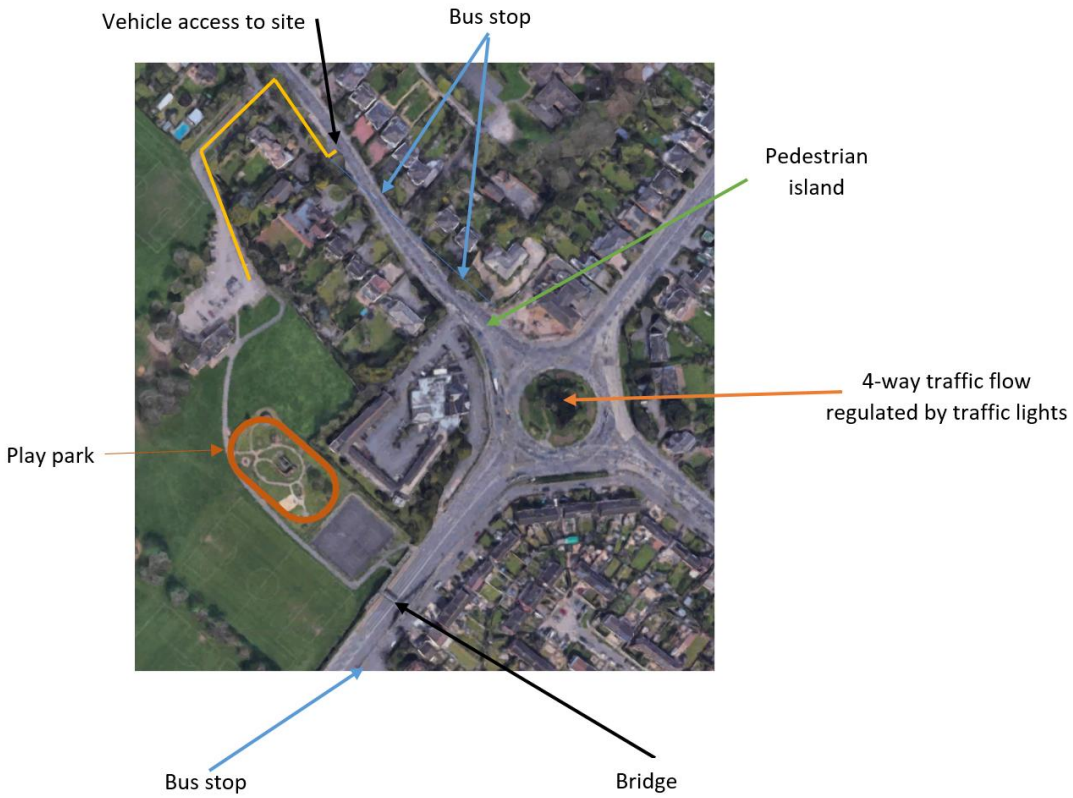


Figure 8.5 Key access features CSS2

History

Prior to the development of the case study site there was a single play park within the green space, this sited approximately 500m from the case study site, but no play facilities were provided on the case study site. The site is leased for 10 years from the City Council, opening in 2009 with ongoing maintenance provided by the City Council. All the play equipment was funded through fund-raising and lottery grants.

Play park group / responsible organisation

The project to create the play park was initiated by an individual who continues to be the main driving force behind the development. Current support is provided as a joint project by a national charity, the City Council and volunteers.

Group aim

The group aim was to create an open access local play park which is fully accessible to those with physical and learning disabilities as well as those without impairments, this facility designed considering the needs of users of all ages.

Site description

A 75m pathway leads from the car park area to the entrance gate, the play park bounded on all sides by 2m high fencing. The topography of the park area is level with a slight fall towards the entrance. Within the park a path links each of the individual play structures and the two seating areas. There is a mature tree within the play park boundary plus a number of saplings; the grassed areas around the trees is under-planted with flowering bulbs. The boundary fence includes 9 panels which were created by local school children in conjunction with an artist. At the entrance, and adjacent to each item of equipment, information boards are installed with text, bespoke pictograms or Widgits (www.Widgit.com) and braille explanations of how to access the park, the Widgits downloadable from the play park's website. The ethos behind the creation of the site results in the provision of specialist items of equipment which are not generally found within play parks. This includes wheelchair accessible swings and seesaw, swings and a roundabout with supportive seats, plus ramped access to the modular unit and the sandpit.

These elements provide a site with enhanced play value as they are, with the exception of the wheelchair accessible swing, usable by those of a wider ability range than standard items of equipment. There are additional elements within the park which enhance usability through the different methods of providing information, a pathway linking all items of fixed equipment and seating, the inclusion of auditory and visual elements such as the 'make it rain' panel, musical chimes, ball bearing maze and the decorative mural. The bridge elements within the main unit are designed to offer two levels of challenge with a solid base and 'floating' steps or balance beams, these offering both the opportunity to challenge physical ability, and offer an option for the less-able.

Four park benches and two accessible park benches are installed adjacent to the pathway, with a large shelter with benches providing space for a number of wheelchairs and pushchairs. Figure 8.6 provides an aerial view of the site with key local amenities highlighted, and the aerial view in Figure 8.7 illustrates the layout of the pathway and play park equipment.

Figure 8.6 Aerial view of CSS2 with local facilities highlighted

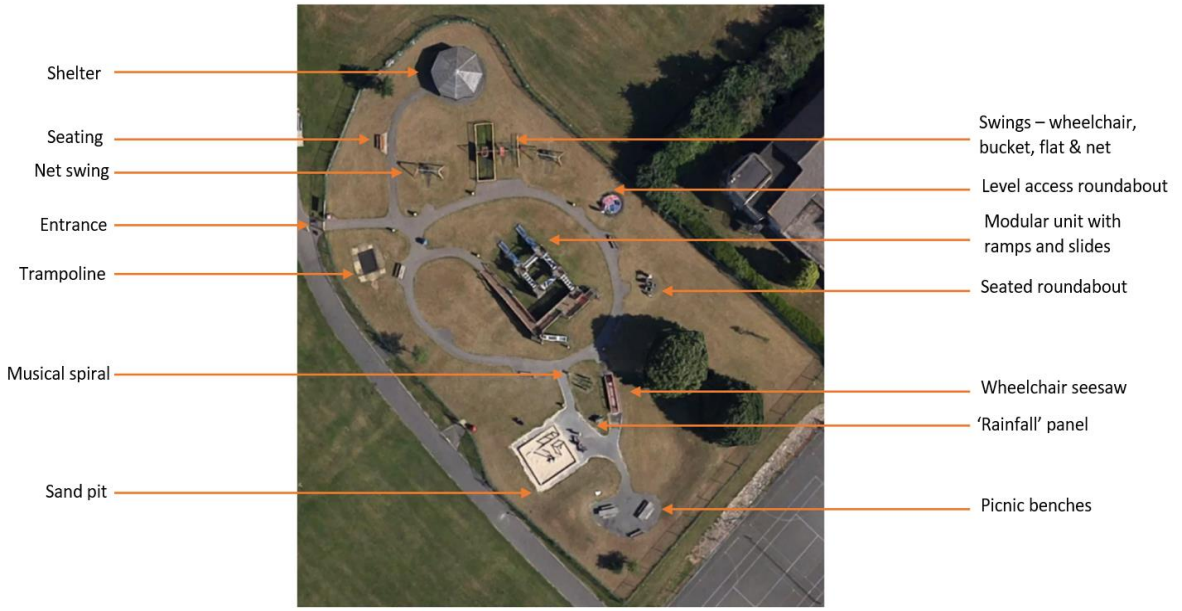


Figure 8.7 Locations of play equipment CSS2

Individual items of equipment installed are listed in Table 8.3 showing the total number present, including multiple items of the same design. Where provision includes designs supporting access for those with different ability levels this is indicated under 'graded options'.

Item of equipment	Total no. present	Graded options
Swing	5	✓
Slide	3	
Climbing frame / unit	3	✓
Balance Beam / bridge / trim trail components	3	
Tunnel	0	
Rocker / Seesaw	1	
Trampoline	1	
Roundabout / Rotation pole	2	✓
Monkey / hanging bars	1	
Auditory	2	
Visual	3	
Activity panel / play structure	3	
Interactive (sand / water)	1	
Specialist	8	✓

Table 8.3 Equipment installed at CSS2

Figure 8.8 summarises both the play activities these items offer and the frequency these are found on the site (some items of equipment will provide opportunities for more than one type of play activity).

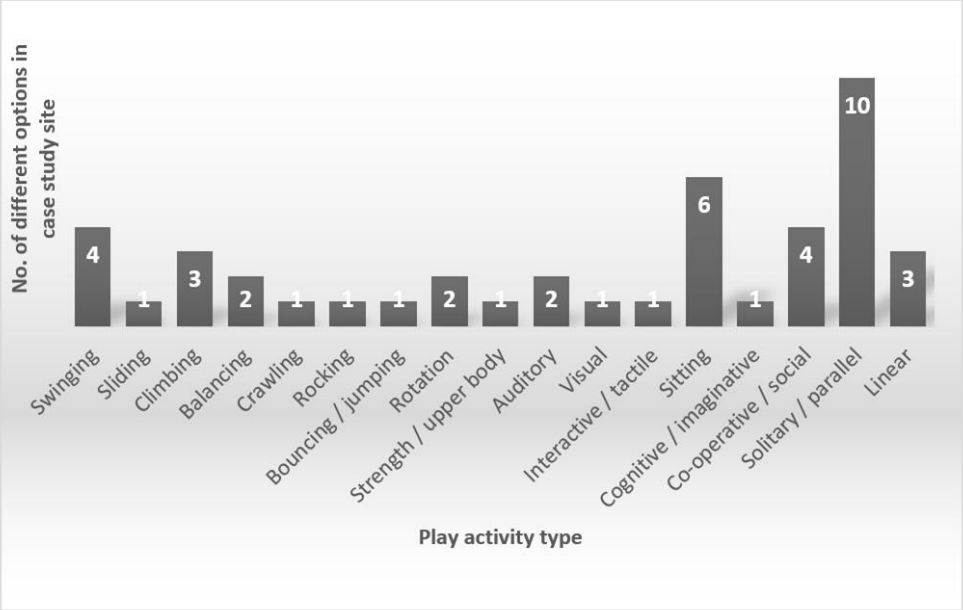


Figure 8.8

Frequency of play activity CSS2

Analysis of the site survey results considering play value are summarised in Figure 8.9 which highlights areas where accessible equipment is installed.

User group(s)

CSS2 is accessed by children of all abilities, supervised and un-supervised with access facilitated by parents, formal carers and, in the case of school groups, teaching staff. As the wider green area contains facilities for organised sports activities user groups come from a wide geographical area reflecting the scheduled sport fixtures taking place. Surveys completed by the responsible group have identified visitors from across the city and from surrounding towns and villages.

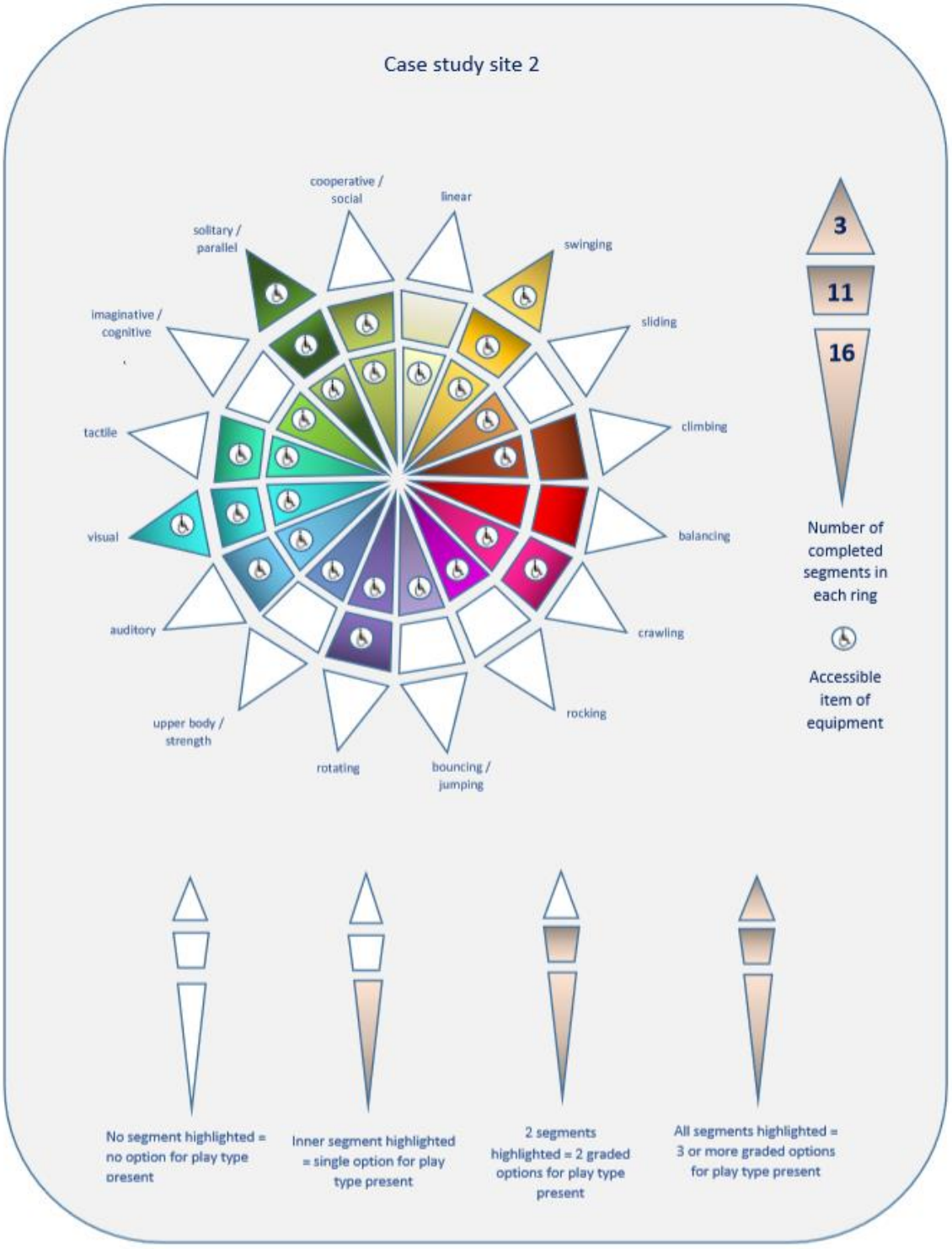


Figure 8.9 Play value infographic CSS2

Case study site 3

Geographic location

CSS3 is located 500m from the centre of a market town (population 14,000) in the east of England. The site is owned by the town council.

Site access

The play park at CSS3 comprises of two discrete areas situated on the edge of a recreation ground in a residential area; this comprising of a mix of social housing and privately-owned properties. Three sides of the 9-acre site are bounded by a pathway running alongside garden hedges and fencing. The remaining boundary is along a residential street with a fence separating the green area from the pavement. There are ungated access points at intervals along the boundary fences providing access throughout the site. At the opposite (north) end of the green area to the play park there are two football pitches and a changing facility open only during training sessions and matches. There are no changes in level across the whole site. No wayfinding signs were noted in the adjacent area to direct users to the play park. At the entrance to area A there are signs provided by the District Council advising this is a no smoking area and dogs are not to be admitted to the fenced area. There is no advice in regard to how to report issues with the play park site or equipment. There are no bus routes running close to the play park, and it is not covered by CCTV monitoring.

History

The site is managed by the District Council and situated on public land. Public records do not indicate when play equipment was first installed. The equipment has been replaced and repaired as required, providing a mix of traditional and modern designs, and safety surfacing has been installed around the equipment.

Play park group / responsible organisation

The recent changes to the play park were instigated by two parents of disabled children. They are founders of a social support group for parents and carers of disabled children

and identified a lack of local accessible play facilities. After lobbying for improved play facilities to support those with additional needs equipment was installed which was fully funded by the District Council.

Group aim

The project to develop the play area was initiated to incorporate play equipment which children with disabilities could access and enjoy, playing alongside their able-bodied peers, enabling children of varying ages and abilities to play together. The initial aim was to redevelop the whole site replacing all the equipment, however the funding could not be secured to complete this option. A compromise was reached where additional items were installed, selected for their accessibility and usability.

Site description

The play park equipment is set within two fenced areas each accessed via metal self-closing gates. The fences and gates are of similar construction with alternate panels / gates highlighted with either red or yellow paint and lacking clear definition of entrance points. One gated area (area A) contains fixed items of equipment designed for younger children with the second area (area B) populated with equipment on a larger scale.

Figure 8.10 illustrates the location of the play parks within the green space. Area A is approximately 15 metres from the pavement on the western border at the south of the green area, and Area B approximately 25m further from the pavement with a grassed area between and around the two fenced areas. There are no pathways leading to, within or between the two areas. At the entrance gates metal grilles are set into the ground with the main expanse of each play area grassed, and either wet pour rubber, or rubber tiles installed around fixed items of equipment. Signage at the entrance gate to area A is installed advising users that only assistance dogs are allowed in the play areas, and smoking is not allowed. There is no indication who is responsible for the maintenance or provision of the play park, or how to report issues. There is no lighting or CCTV in or around the area.

Seating (2 park benches) is installed outside of the fenced areas between the two sites with an additional bench 50m away on the boundary of the recreation field.

Figure 8.10 provides an aerial view of CSS3 with the two separate areas marked.

Figure 8.10 Aerial view of CSS3 with local facilities highlighted

The individual items of equipment installed within the play park are listed in Table 8.4 showing the total number present, this includes multiple items of the same design. Where provision includes designs supporting access for those with different abilities this is indicated under 'graded options'.

For the purposes of this investigation the equipment listed in both areas (A&B) are summarised together, area A contains 9 individual items and area B, 10.

Figure 8.11 summarises both the play activities these items offer and the frequency these are found on site (some items of equipment will provide opportunities for more than one type of play activity).

Item of equipment	Total no. present	Graded options
Swing	7	✓
Slide	1	
Climbing frame / unit	1	
Balance Beam / bridge / trim trail components	3	✓
Tunnel	0	
Rocker / Seesaw	3	✓
Trampoline	0	
Roundabout / Rotation pole	7	✓
Monkey / hanging bars	1	
Auditory	0	
Visual	0	
Activity panel / play structure	0	
Interactive (sand / water)	0	
Specialist	1	

Table 8.4 Equipment installed CSS3

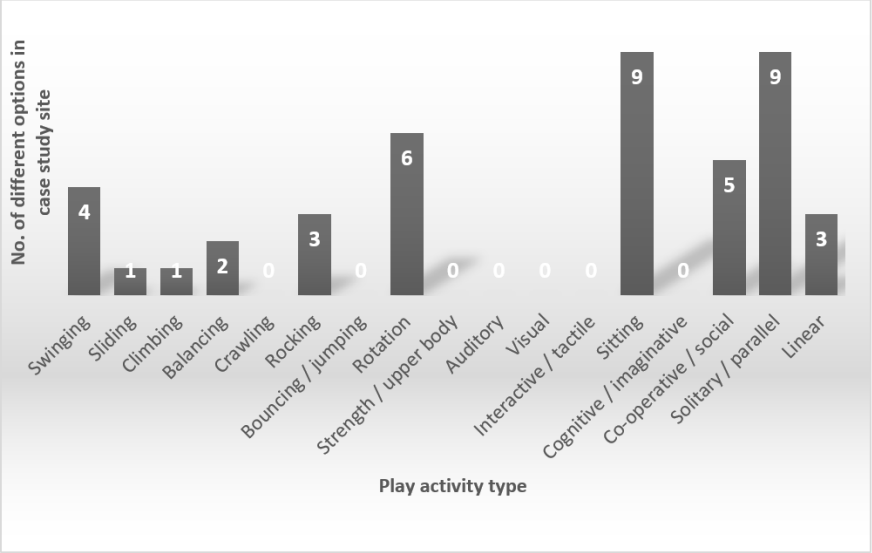


Figure 8.11 Frequency of play activity CSS3

Analysis of the site survey results considering play value are summarised in Figure 8.12 below highlighting areas where accessible equipment is installed.

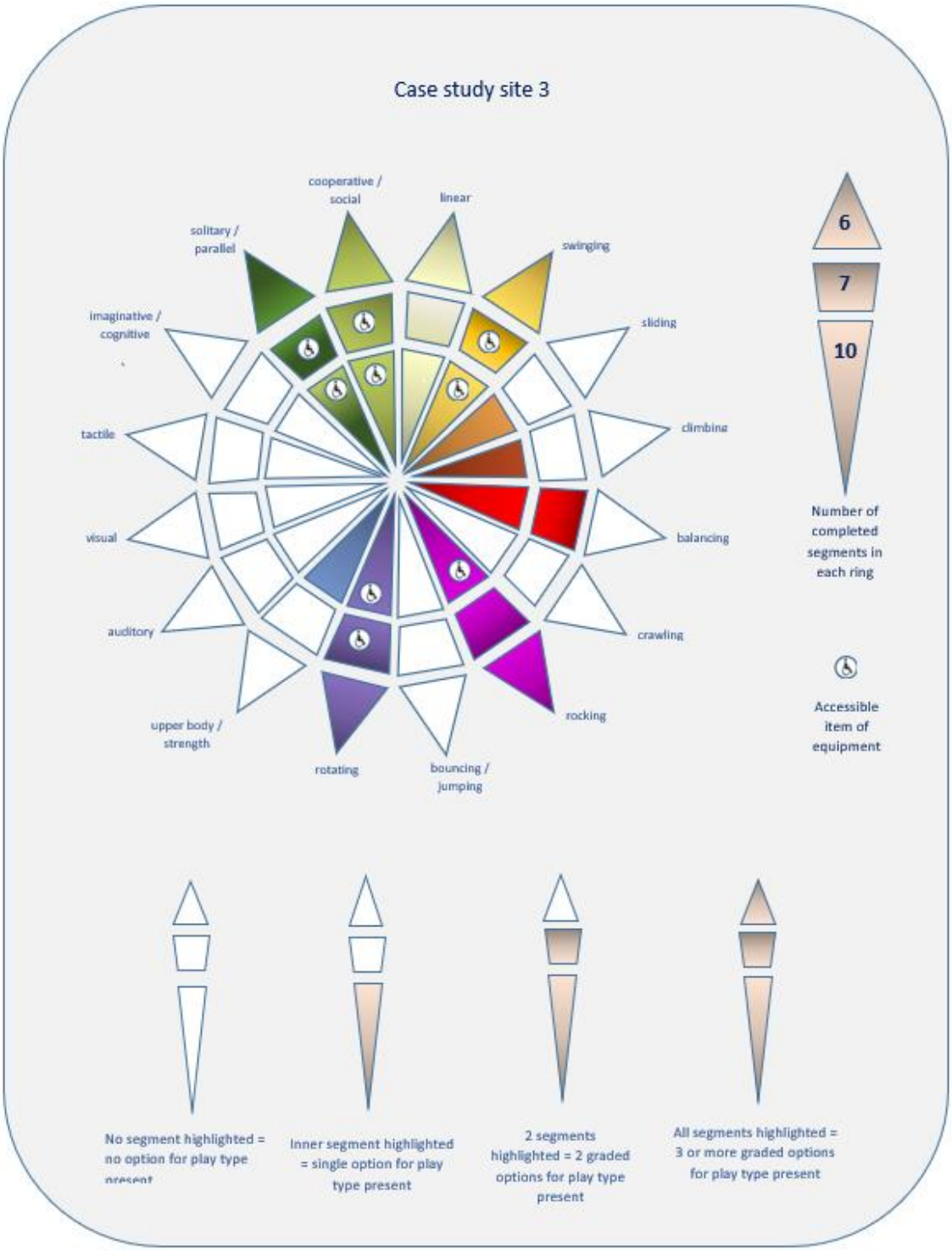


Figure 8.12 Play value CSS3

The intention to increase accessibility and usability within the playpark resulted in the inclusion of a wheelchair accessible roundabout offering options to stand or sit. A supportive swing set within a unit of standard swings offers opportunities for parallel play

by children with different abilities. The selection of other 'mainstream' items offers increased usability such as the nest swing which provides increased support and opportunity for use by multiple users; the double width spring rocker promotes social and cooperative play as well as options for an adult to offer support, or for a user to lie on the centre section.

The selection of graded equipment is demonstrated in options available for rotational movement: a level access roundabout provides three options (wheelchair, seated, stood), a 'cup' rotator provides full support, a seated roundabout suitable for those with good trunk support. Two differently sized standing poles and the 'hanging' rotator enable play by those with standing balance or upper body strength and grip.

User group(s)

CSS 3 is accessed by children living locally, and, following the introduction of the equipment offering enhanced usability, families with children with physical disabilities. Users travel from a wide area to access the play park as this accessible facility has been highlighted in local press releases and through a county-wide support group publication.

Case study site 4

Geographic location

CSS4 is located in a village in the East Midlands with a population of approximately 1900. Village amenities include a school, pub and a village hall. The land is owned by the parish council.

Site access

The play park is located within a green amenity space adjacent to a dog walk area, football pitch and bowling green. There is a track leading from the road to a grassed parking area, the area the play park sits within is fenced; access via latched gates to the north and south, the closest items of equipment installed approximately 60m from the access points.

Directions to the recreation field are provided by finger posts in the village centre and at the main entrance to the site. There are no bus routes close to the play park and it is not monitored via CCTV.

History

The original play park site was adjacent to the village hall, a significantly smaller site with equipment suitable for use by those aged under 10 years – a total of 4 units. This site was located on the opposite side of the main road running through the village to the main area of housing. The units were timber, and once safety inspections identified these required replacement, the play park was closed (Figure 8.13) leaving the village without a play facility for a number of years (available parish council minutes do not confirm the exact date of the site closure). During this time the closest play park was 1.5 miles away in the adjacent village. The current site was acquired by the Parish Council in 2005 with football and bowling facilities established in 2007. The outline planning permission identified that future provision of play equipment was intended, the installation completed in 2014.

Figure 8.13 Closure notice original site CSS4

Responsible organisation

A core group of 4 volunteers formed a community group with a focus on provision of play facilities for the village. This number was supplemented by additional volunteers for the different fundraising activities planned. The Parish Council hold responsibility for the site and their approval is required for all aspects of provision.

Group aim

To provide play facilities for the children of the village, catering for children and young people up to the age of 18, leaving a legacy for future children and families.

Site description

The play equipment is sited along the border of a larger green amenity site. There are two access points to the area, single gates on opposite ends of the field both reached by unmade tracks. Within the larger area there are football pitches, a bowling green, a fenced dog walk area and an area planted with saplings. Seating is provided within the play park area with a single park bench, in-set sleepers in the grassed bank and a teen shelter as well as a static traditional style 'rocking horse'. The entire site is laid to grass. Housing borders three sides of the site, the fourth border adjacent to arable land. In the play park area landscaping offers changes of level providing interest, vantage points and structure for installation of a tunnel and embankment slide. Figure 8.14 provides an aerial view of the site and its features.

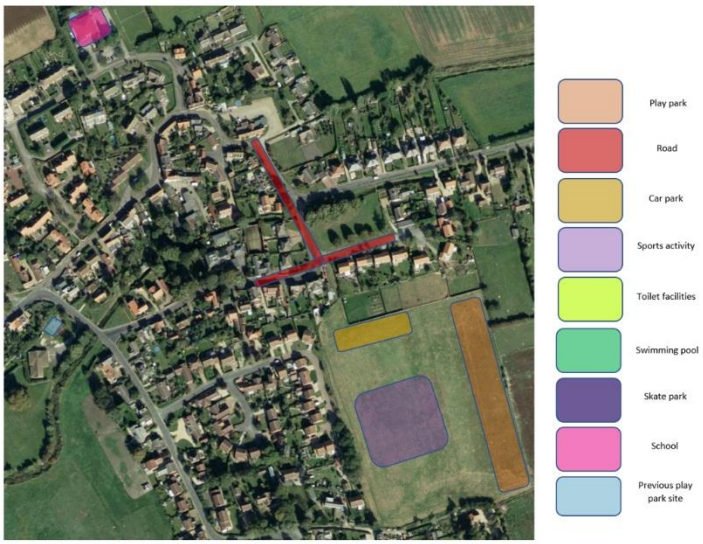


Figure 8.14 Aerial view of CSS4 with local facilities highlighted

The individual items of equipment installed within the play park are listed in Table 8.5 showing the total number present, this includes multiple items of the same design. Where provision includes designs supporting access for those with different abilities this is indicated under 'graded options'.

Item of equipment	Total no. present	Graded options
Swing	8	✓
Slide	3	✓
Climbing frame / unit	5	✓
Balance Beam / bridge / trim trail components	1	
Tunnel	1	
Rocker / Seesaw	1	
Trampoline	0	
Roundabout / Rotation pole	4	✓
Monkey / hanging bars	0	
Auditory	0	
Visual	1	
Activity panel / play structure	3	
Interactive (sand / water)	0	
Specialist	0	

Table 8.5 Equipment installed CSS4

Figure 8.15 summarises the play activities these items offer and the frequency these are found on site (some items of equipment will provide opportunities for more than one type of play activity). Analysis of site survey results for both the original and current sites which consider play value are summarised in Figures 8.16 and 8.17 highlighting areas where accessible equipment is installed.

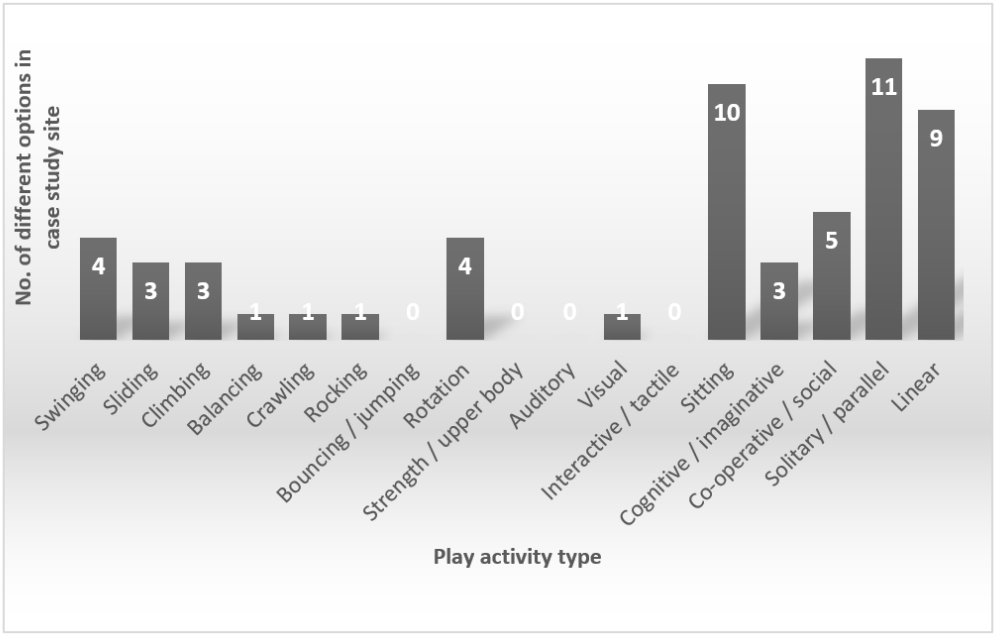


Figure 8.15 Frequency of play activity CSS4

Analysis of site survey results for both the original and current sites which consider play value are summarised in Figures 8.16 and8E.17 highlighting areas where accessible equipment is installed.

User group(s)

The facility is intended to meet the needs of children, young people and families in the village but has proven popular with families from further afield, a committee member advising they were aware of visitors travelling up to 30 miles. Additionally, the site is accessed by the local school, pre-school and is a destination used by a respite unit supporting children with disabilities.

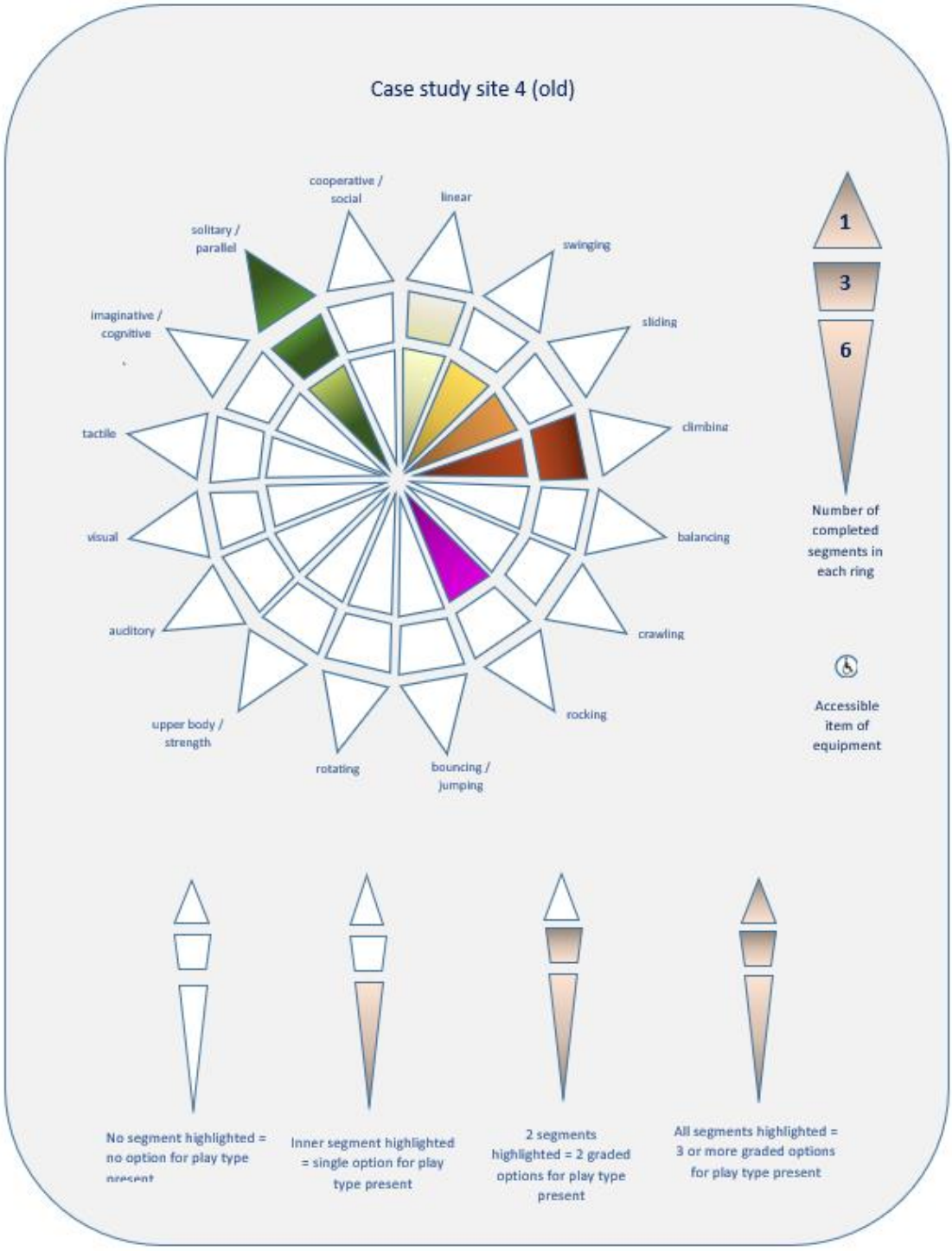


Figure 8.16

Play value CSS4 (original site)

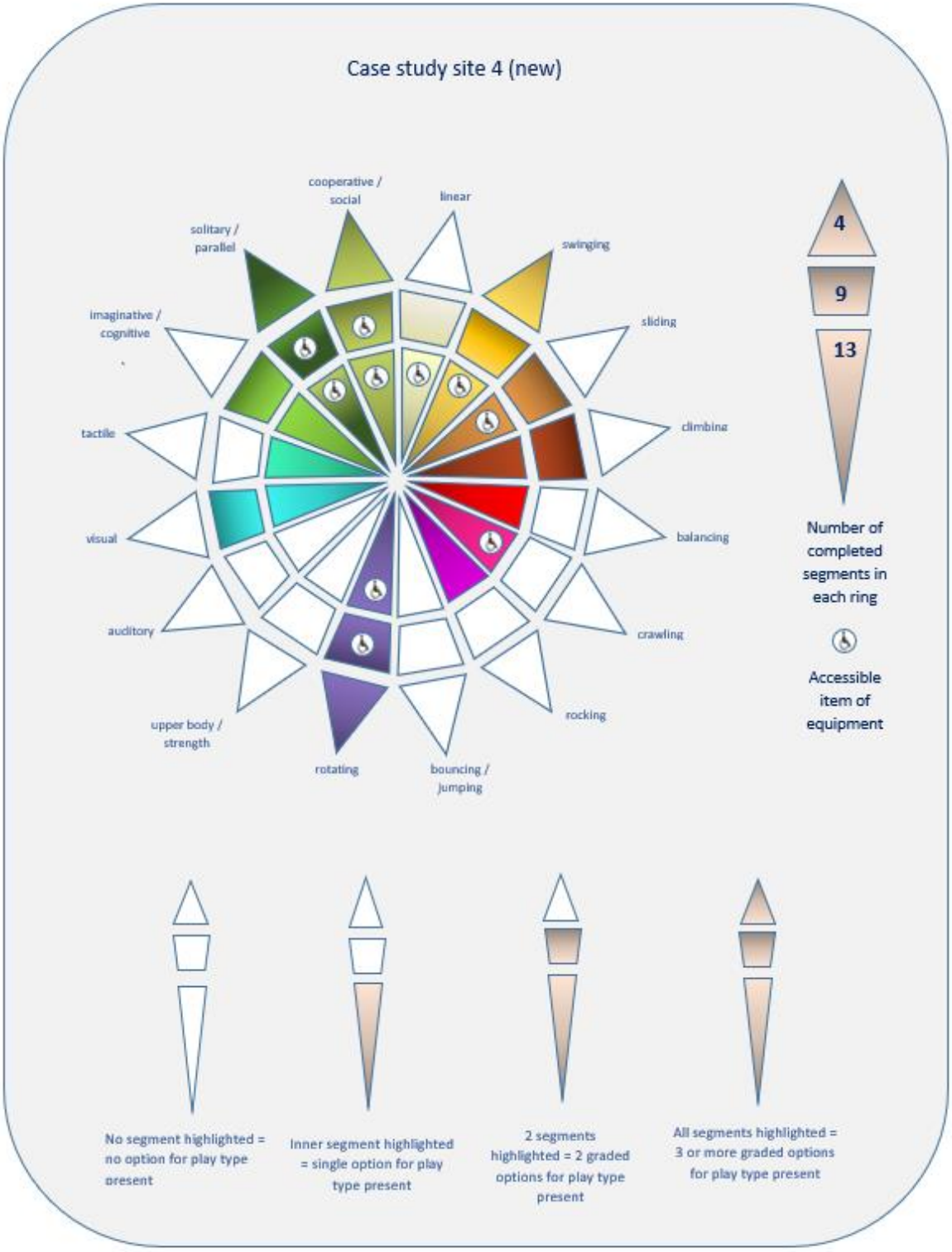


Figure 8.17

Play value CSS4 (current site)

Case study site 5

Geographic location

The play park is located in the north of England in a town with a population of approximately 71,500. The play park is sited within the boundary of a 17-acre Grade II listed garden situated adjacent to its south-west border. The site is owned and managed by the borough council. Close to the entrance to the play park there is a residential area comprising of privately-owned or rented properties; the play park is approximately 700m from the town centre.

Site access

Direct access to the gardens is on foot or by bicycle, limited parking within the wider garden area available for Blue Badge holders. The parking on the residential street adjacent to the play park entrance is restricted to three hours or for residential permit holders. The play park is fully enclosed by 1m high fencing with four access gates, one on each side of the park. The closest bus route runs along a parallel road to the east of the park with a bus stop 150m from the play park entrance. There are location maps highlighting key areas within the gardens situated across the main site which include the play park location. The garden location is well signposted from the city centre. The map and directions are available on the gardens web-site. Parts of the play park are covered by CCTV.

History

The current play park equipment was installed in 2009 on the site of the previous play park, the original installation at this site completed in the late 1960's.

Responsible organisation(s)

The gardens are the responsibility of the Borough Council who fund and maintain the play equipment. A volunteer group; 'Friends' of the gardens, whose primary intent is supporting maintenance of the garden's character, have supported fundraising activities including that for the replacement of a modular unit after fire damage.

Group aim

The Borough Council have a responsibility to provide play equipment for the children and families resident within their boundary; additionally, as the play park is situated within a tourist attraction there is a requirement to ensure any provision reflects the higher visitor numbers that for a play park solely used by local residents.

Site description

The play park is bounded by fencing separating it from the street along its east boundary, and from the gardens and sports facilities which make up the wider garden / park. The play park site slopes from east to west with landscaping providing level areas for equipment. These are linked by tarmac pathways, and the equipment is set within areas of fall attenuating surfaces including areas of wet pour rubber where contrasting colour footprints add interest (Figure 8.18).

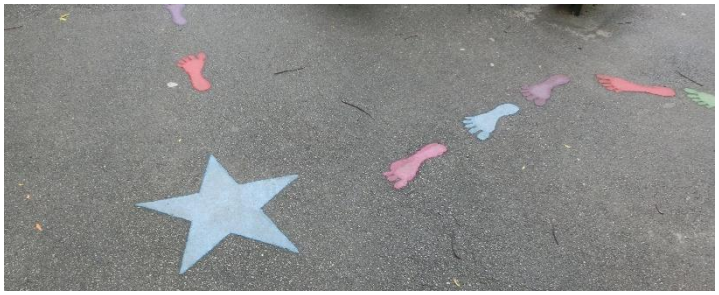


Figure 8.18 Footprint trail

The garden area contains a number of natural springs which historically meant grassed areas were difficult to maintain. Therefore, a decision was made to replace most of the grassed areas with grass-effect matting. There are a large number of trees and mature shrubs within the play park area as well as in the main gardens. Adjacent to the east border of the play park is a pavilion serving snacks and drinks at peak times such as summer holidays and weekends. There are seats throughout the play park set to the side of the pathways. Additionally, there are 2 picnic areas, one adjacent to the paddling pool and one at the western end of the play park.

Figure 8.19 provides an aerial view of the formal garden area (bounded in blue) with the play park highlighted in orange, Figure 820 is a view of the case study site with key features highlighted.

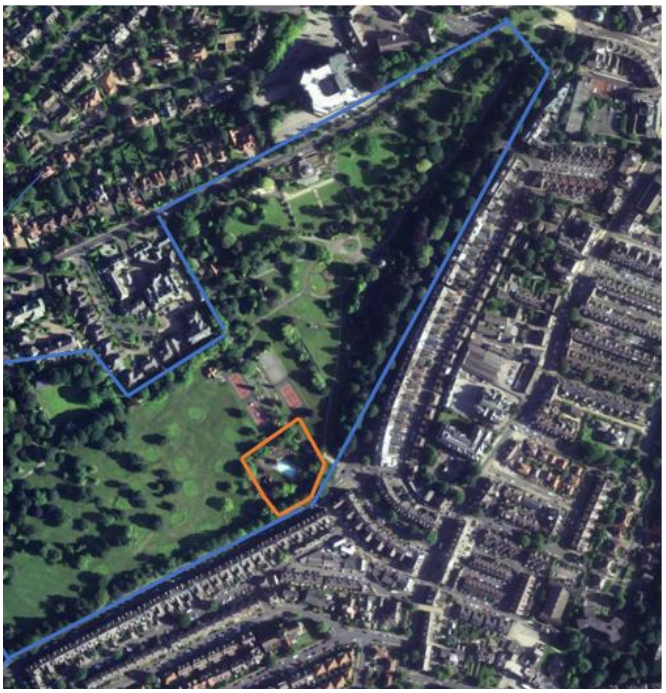


Figure 8.19

Aerial view of the formal gardens with play park highlighted

Figure 8.20

Aerial view of CSS5 with local facilities highlighted

There is a wide range of play equipment within the case study site designed for children and young people up to the age of 18. The individual items of equipment installed within the play park are listed in Table 8.6 showing the total number present, this includes multiple

items of the same design. Where provision includes designs supporting access for those with different abilities this is indicated under 'graded options'.

Item of equipment	Total no. present	Graded options
Swing	9	✓
Slide	9	✓
Climbing frame / unit	8	✓
Balance Beam / bridge / trim trail components	4	✓
Tunnel	3	✓
Rocker / Seesaw	3	✓
Trampoline	0	
Roundabout / Rotation pole	2	✓
Monkey / hanging bars	1	
Auditory	1	
Visual	0	
Activity panel / play structure	4	
Interactive (sand / water)	1	
Specialist	0	

Table 8.6 Equipment installed CSS5

Figure 8.21 summarises both the play activities these items offer and the frequency these are found on site (some items of equipment will provide opportunities for more than one type of play activity).

Analysis of the site survey results considering play value are summarised in Figure 8.22 highlighting areas where accessible equipment is installed.

User group(s)

The play park is intended for use by local families and by tourists visiting the town and gardens. Anecdotal accounts evidence use by families living in the towns and villages in the wider area who would not describe themselves as tourists, but due to the location close to the town centre, combine visits with shopping trips.

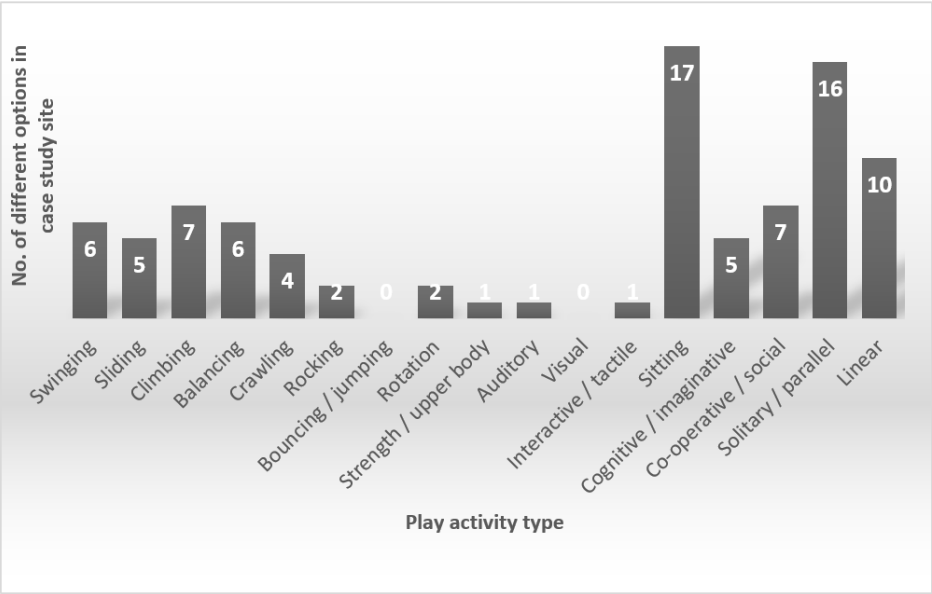


Figure 8.21 Frequency of play activity CSS5

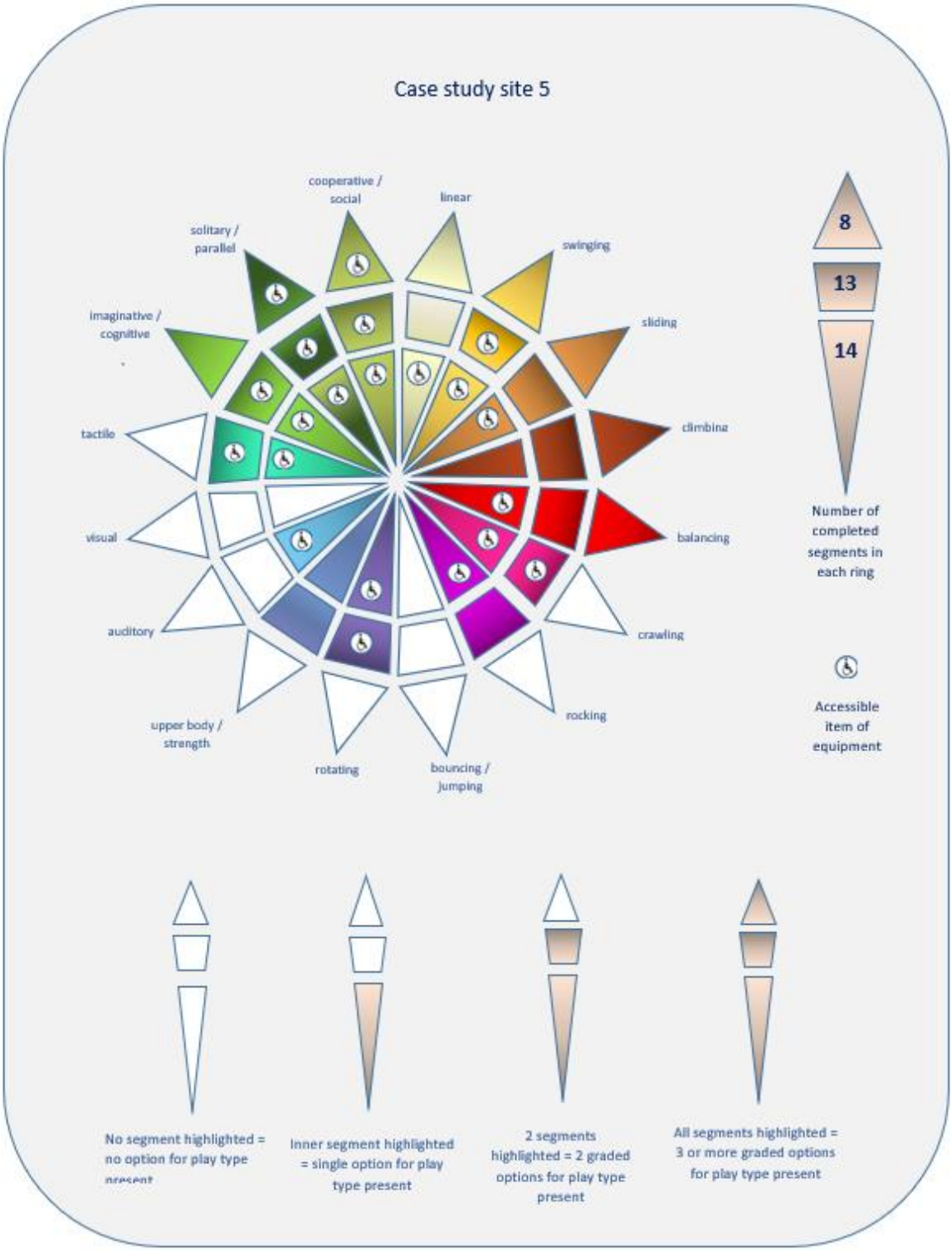


Figure 8.22 Play value infographic CSS5

Case study site 6

Geographic location

CSS6 is located in parkland adjacent to a residential area of a market town in the east of England with a population of 14,000. The site is approximately 500m from the town centre and owned by a civic trust.

Site access

The play park is sited within a 21-acre park, adjacent to its north-west boundary with both residential and industrial areas close by. There is no dedicated parking for vehicles with car users parking in the residential estate. Within the parkland there are pathways linking different areas, with one running alongside the play park leading towards the residential area. This a frequently used route from a housing development to the south of the parkland to local schools. There are no bus routes running in the area closest to the play park site and no sign-posting from the town centre. Location, and general information are available from the Facebook page of the volunteer group. Information signs in the play park highlight the work of the volunteer group and play park sponsors and provide a history of the site. These signs do not provide contact details for the organisation responsible for maintenance and upkeep. There is no CCTV monitoring of the site.

History

The land was purchased as meadows in 1945 by a charitable trust as an amenity for the town, later developed as parkland in the 1950's. The area of the parkland containing the play park is of historic significance as the site of a Norman castle, however no remains are visible. This land leased by the Trust to the District Council who provide the play equipment and maintain the fenced area. Records do not show when play equipment was first installed, but anecdotal accounts suggest equipment was in place in the 1970's and replaced in the 1980's, the most recent re-development completed in 2017.

Responsible organisation

The play equipment is owned and maintained by the District Council however the most recent development resulted from efforts by a volunteer group. This initiated as the original equipment and site had fallen into disrepair with areas cordoned off.

Group aim

The group originally formed to informally levy for repairs and replacement equipment, later registering as a charity and completing fund-raising to meet costs to create a facility for the residents of the town and surrounding villages.

Site description

The play park is enclosed by a fence and is set within a level green area with an embankment adjacent to the west boundary. Aa pathway runs adjacent to the northern boundary. Figure 8.23 provides an aerial view of the wider park area (bounded in blue) with the play park highlighted in orange, Figure 8.24 is a view of the case study site with key features highlighted. The surface cover is a mix of grass and compacted rubber chips. These include areas of different colours in keeping with the castle theme developed for the site to indicate a moat and a draw-bridge. These act as pathways to and around the main 'castle' modular unit.

Figure 8.23

Aerial view of the park with play park highlighted

Figure 8.24 Aerial view of CSS6 with local facilities highlighted

The individual items of equipment installed within the play park are listed in Table 8.7showing the total number present, this includes multiple items of the same design. Where provision includes designs supporting access for those with different abilities this is indicated under 'graded options'. Figure 8.25 summarises both the play activities these items offer and the frequency these are found on site (some items of equipment will provide opportunities for more than one type of play activity).

Item of equipment	Total no. present	Graded options
Swing	5	✓
Slide	2	✓
Climbing frame / unit	4	✓
Balance Beam / bridge / trim trail components	7	✓
Tunnel	2	
Rocker / Seesaw	2	✓
Trampoline	0	
Roundabout / Rotation pole	1	
Monkey / hanging bars	4	
Auditory	2	
Visual	1	
Activity panel / play structure	2	
Interactive (sand / water)	1	
Specialist	0	

Table 8.7 Equipment installed CSS6

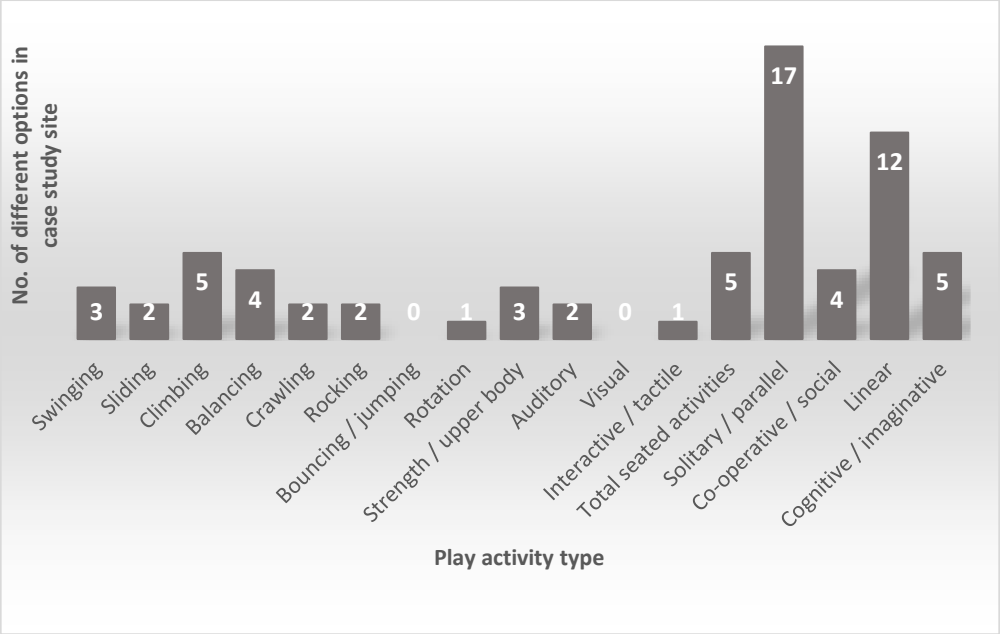


Figure 8.25 Frequency of play activity CSS6

Analysis of the site survey results for both original and current provision considering play value are summarised in Figures 8.26 and 8.27 highlighting areas where accessible equipment is installed.

Provision of seating is limited, a single park bench retained from the previous provision as there were insufficient funds to install the picnic benches included within the original scheme. The site was originally divided into two areas abut during the development in 2017 these were combined with some climbing and balance elements retained from the existing equipment.

User group

Opening in October 2017 Facebook posts indicate that the play park is used by residents of the town and surrounding villages.

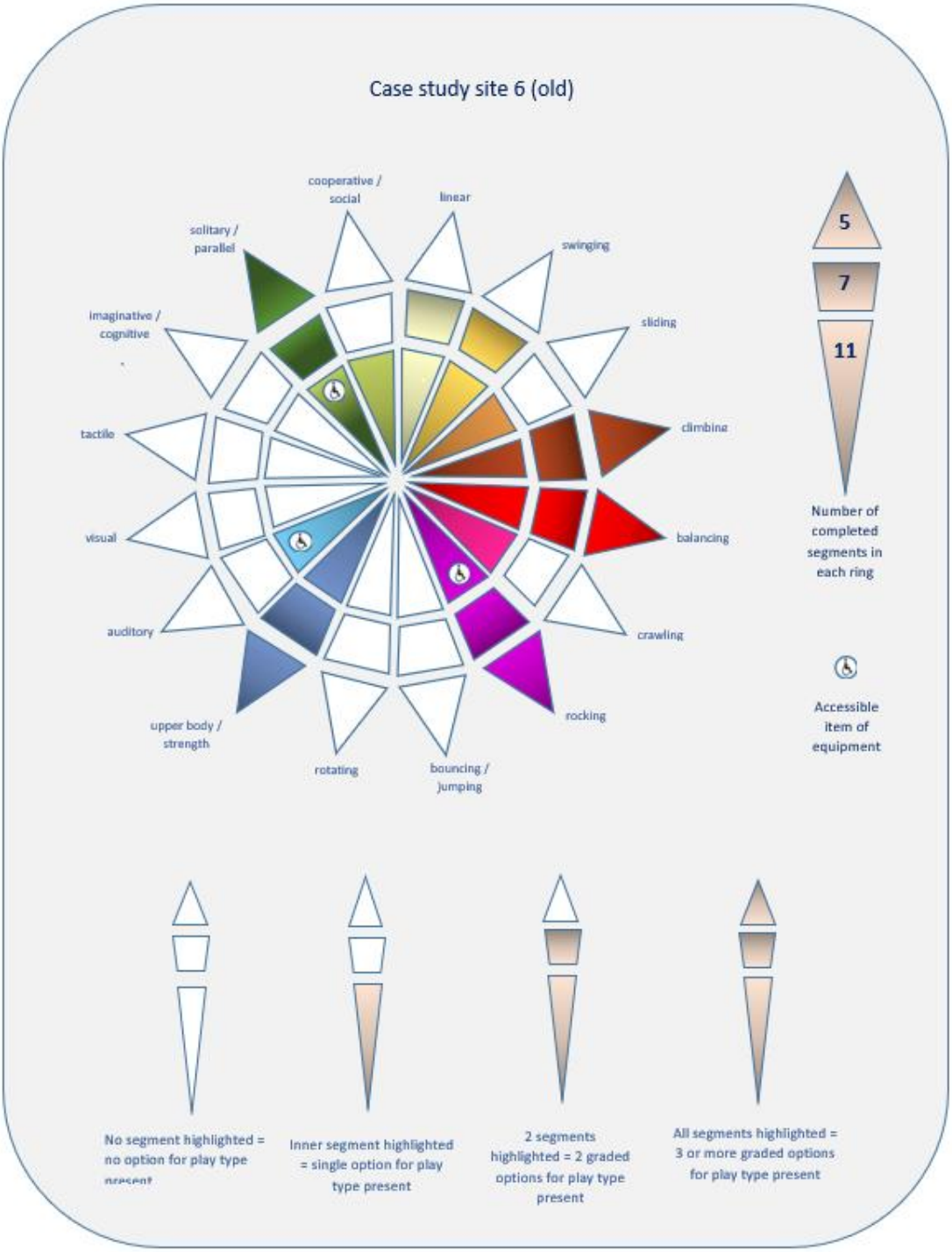


Figure 8.26

Play value infographic CSS6 (original provision)

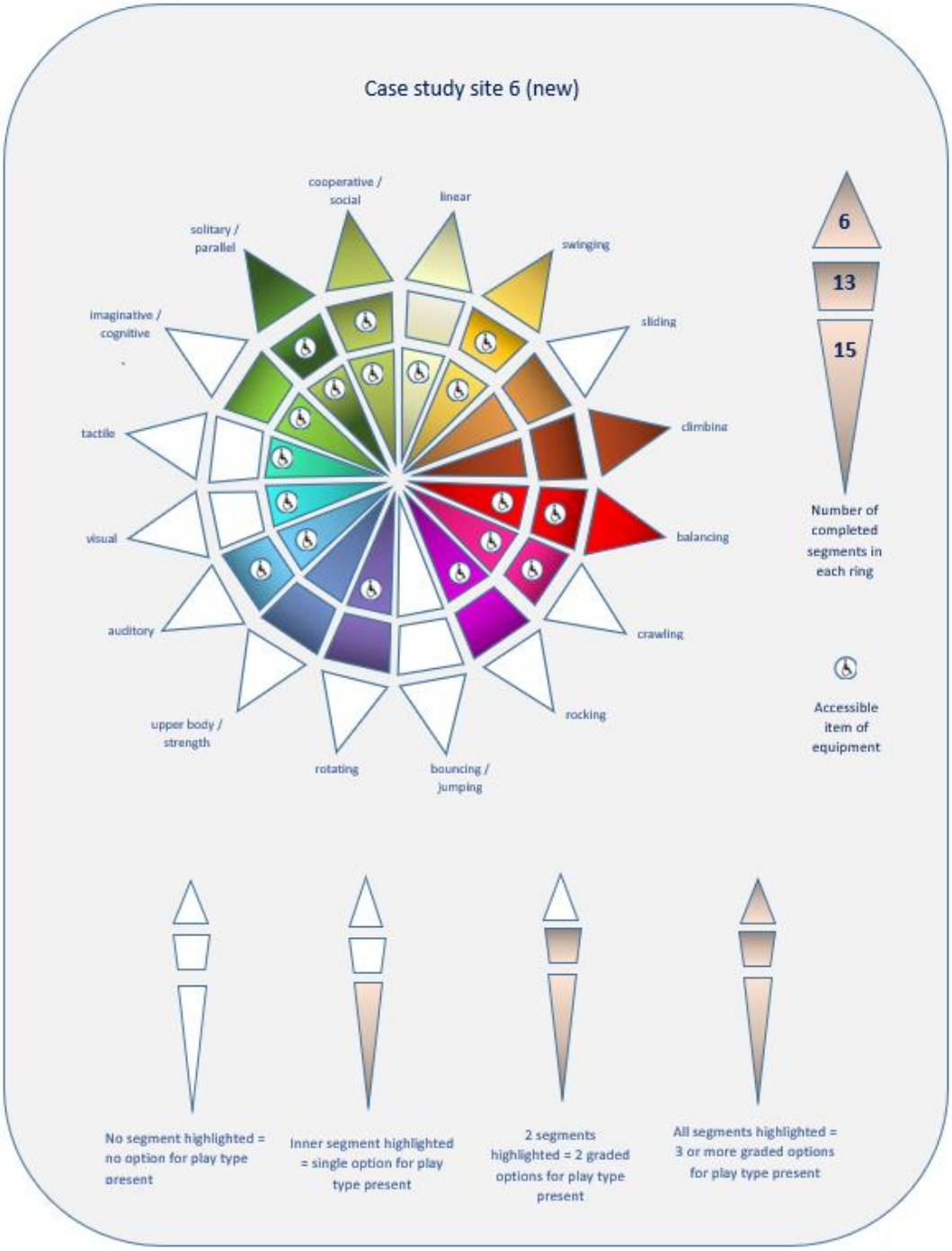


Figure 8.27

Play value CSS6 (current provision)

Case study site 7

Geographic location

The play park is located in the East Midlands sited on the boundary of a city with a population of approximately 94,000; this district forms part of a larger urban area incorporating a town and large village. The combined total population of this area being approximately 130,000. There is a small retail area 400m to the south-west of the site and the closest school is a special school whose grounds abut the fenced area of CSS7, but without direct access. The site is owned and maintained by the city council.

Site access

The direct site access is by foot or bicycle only; there is a bus route on the main road to the north of the play park and roadside parking on the residential estate to the south. A footpath runs between these areas alongside the enclosed area which houses items of fixed play equipment suitable for younger users. Access points, bus stops and crossing points are marked on figure 8.28. Information boards sited at the access point closest to the road and fenced area advise on appropriate access and use of the park plus contact details for the city council. There is no CCTV installed in the park area.

Figure 8.28 Access to CSS7

History

There are no public records available relating to the first installation of play equipment on this site. Recent developments include additional equipment installed in the open green area under the Playbuilder Scheme in 2009; and activity panels and railway themed structures in the enclosed area in 2016.

Responsible organisation

The site is owned and maintained by the city council with a single nominated officer responsible for day-to-day aspects of managing the 45 play parks within the city boundary.

Group aim

To provide and maintain play equipment to meet identified local need.

Site description

The play park area is divided into two areas, an enclosed area with equipment suitable for younger children in the eastern section of the site and a larger open area. The open space consists of two green areas bisected by a hedge, and a wooded area with a pathway through which has a trim trail installed along this route. The northern boundary of the site is adjacent to a road which is a key access route to the city centre with a speed limit of 40mph. To the south is a residential area. A special school is sited on the eastern edge, with an access road (30mph) for a residential area and sports club to the west. The main access to the site is via a pathway running north / south, and from 2 further access points with un-made paths on the south and west boundary (Figure 8.28). Figure 8.29 shows the play park location in relation to other facilities where present. The pathway bisecting the site and dividing the open and enclosed areas is highlighted by the dashed line.

Figure 8.29 Aerial view of CSS7 with local features highlighted

The enclosed area contains fixed play equipment for younger children, the larger open area has both grass and woodland areas with larger items of equipment throughout. There is an extensive trim trail leading between the two areas and through the woodland. This is timber and stone, selected to reflect the natural setting. Seating within the site consists of two park benches within the fenced area, and 4 seats (2 benches, 2 park benches) in the larger green area. The individual items of equipment installed within the play park are listed in Table 8.8 showing the total number present, this includes multiple items of the same design. Where provision includes designs supporting access for those with different abilities this is indicated under 'graded options'.

Item of equipment	Total no. present	Graded options
Swing	4	✓
Slide	1	✓
Climbing frame / unit	6	✓
Balance Beam / bridge / trim trail components	22	✓
Tunnel	2	✓
Rocker / Seesaw	1	
Trampoline	0	
Roundabout / Rotation pole	1	
Monkey / hanging bars	0	
Auditory	0	
Visual	0	
Activity panel / play structure	8	
Interactive (sand / water)	0	
Specialist	0	

Table 8.8 Equipment installed CSS7

Figure 8.30 summarises both the play activities these items offer and the frequency these are found on site (some items of equipment will provide opportunities for more than one type of play activity).

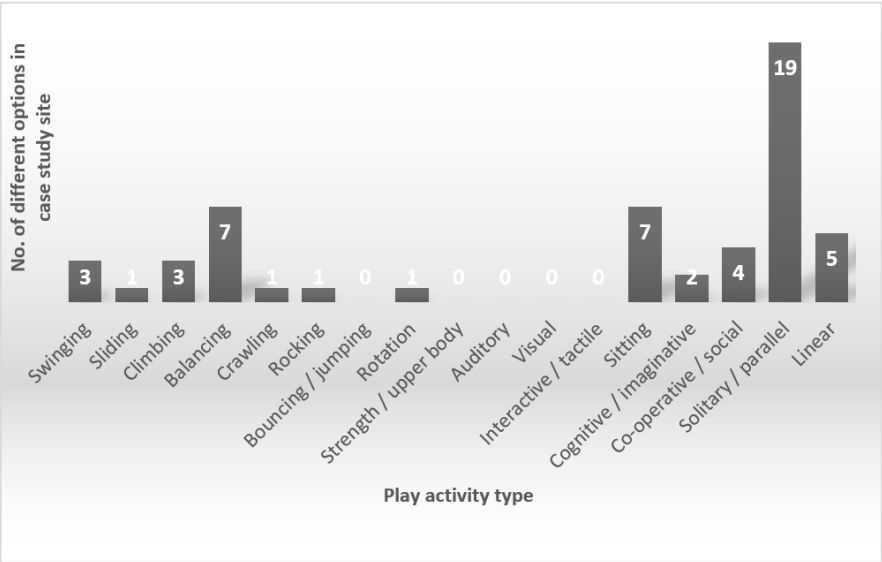


Figure 8.30 Frequency of play activity CSS7

Analysis of the site survey results for both original and current provision considering play value are summarised in Figures 8.31 and 8.32 highlighting areas where accessible equipment is installed.

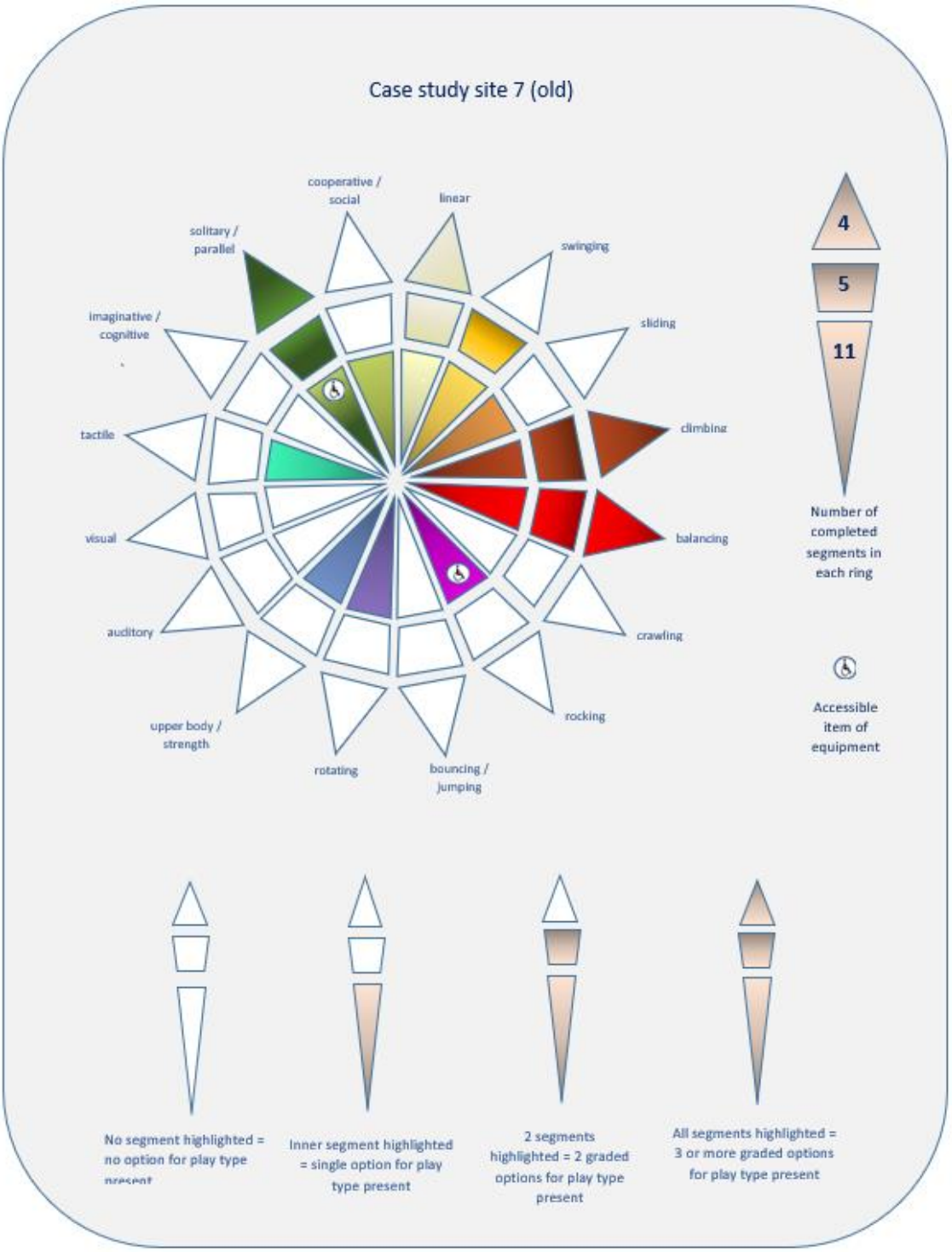


Figure 8.31

Play value infographic CSS7 (original provision)

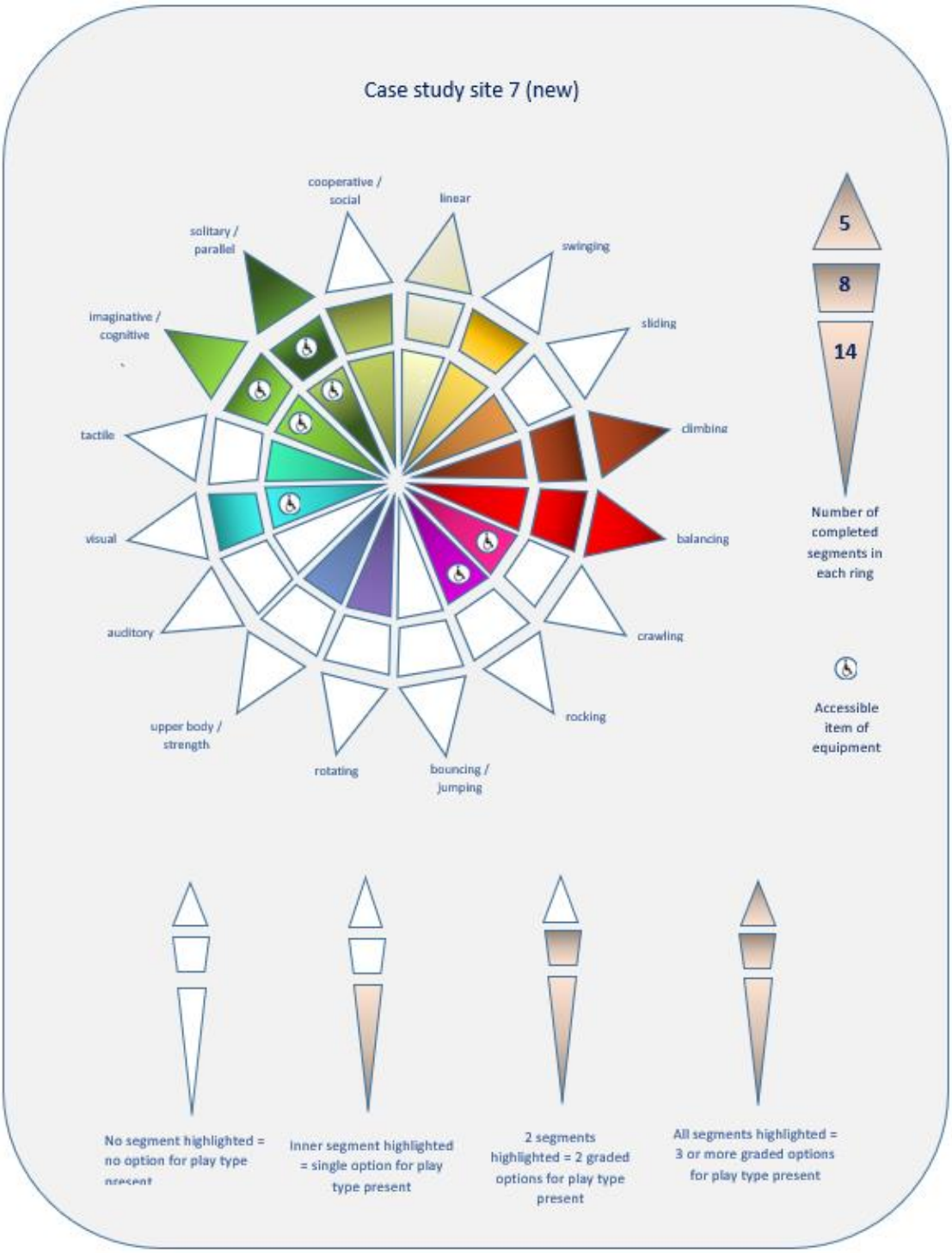


Figure 8.32

Play value infographic CSS7 (current provision)

Case study site 8

Geographic location

The play park is situated in a large village in the East Midlands with a population of approximately 4,500. The site neighbours a school and open-air swimming pool to the north-east, and residential housing to the north and west boundaries. The remaining boundaries abut a recreation area.

Site access

At the time of the site survey access was via a pathway from the car park area adjacent to the site, and from the recreation field. However, as funds become available, the site will be enclosed with a fence, this providing a single access point from the car park. The car park is used by play park user, visitors to the school and swimming pool, and groups including football and bowls clubs. The car park lacks clear pedestrian routes identifying a safe route through to the recreation field and play park. A pathway leads along the edge of the field provides access to a covered seat, skate park, sport wall and to within 20m of the zip-wire which is installed at the opposite end of the recreation field. The car park and recreation field are sign-posted in the village centre and at the car park entrance by finger posts. CCTV is installed covering the play park and the area around the skate park and zip-wire.

History

The public records do not show when play equipment was first installed in this area. Prior to the new installation (October 2017) the play equipment was in a smaller area adjacent to the car park (see figure 8.33).

Responsible organisation

The play park is the responsibility of the Parish Council who manage all aspects; there is no volunteer or 'friends' group associated with the site.

Group aim

The Parish Council has a responsibility to provide suitable play and recreation facilities within the village. They fulfil this responsibility through two play parks, a skate park and a large recreation field with a skate park, zipwire and sport wall.

Site description

At the time of the site survey and interviews the site was unenclosed within the green area with new equipment installed in one area, and the original equipment remaining in an adjacent area. It is intended that the original equipment will be sold therefore this has been disregarded for this investigation. Play equipment is not by age segregated, although most smaller items are sited together on the west side of the site. The swing units are installed along the south border of the park as are the nest swing and rope swing, both of which are suitable for younger children. Between the play park and the area with the zip-wire, skate park and sport wall there are marked football pitches; this is also a route used by dog walkers to access woodland and fields on the village boundary.

Shown on Figure 8.33 a teen shelter(A) is installed close to the swimming pool entrance, and a second covered seat (B) close to the skate park. There are two picnic benches installed alongside the pathway within the fenced area. Exercise equipment (C) for adult use is installed alongside picnic benches (D) in the wooded area between the play park and the car park.

Individual items of equipment installed are listed in Table 8.9 showing the total number present, this includes multiple items of the same design. Where provision includes designs supporting access for those with different abilities this is indicated under ‘graded options’.

Figure 8.33

Aerial view of CSS8 with local facilities highlighted

Item of equipment	Total no. present	Graded options
Swing	6	✓
Slide	3	✓
Climbing frame / unit	5	✓
Balance Beam / bridge / trim trail components	7	✓
Tunnel	0	
Rocker / Seesaw	3	✓
Trampoline	0	
Roundabout / Rotation pole	2	✓
Monkey / hanging bars	0	
Auditory	0	
Visual	1	
Activity panel / play structure	3	
Interactive (sand / water)	0	
Specialist	1	

Table 8.9 Equipment installed CSS8

Figure 8.34 summarises both the play activities these items offer and the frequency these are found on site (some items of equipment will provide opportunities for more than one type of play activity).

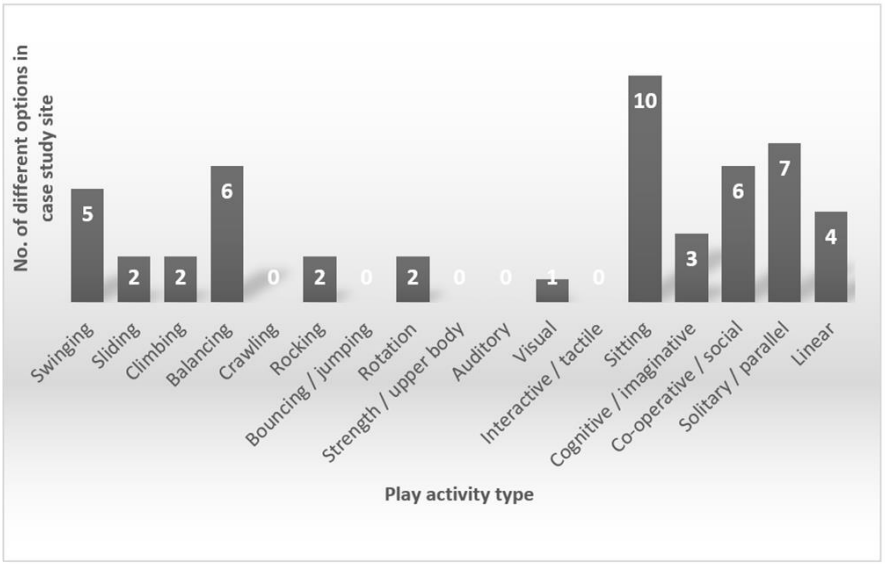


Figure 8.34 Frequency of play activity CSS8

Analysis of the site survey results for both original and current sites considering play value are summarised in Figures 8.35 and 8.36 highlighting areas where accessible equipment is installed.

User group(s)

The play park is used predominately by accompanied children before and after school, when the swimming pool is open and during football training and matches. The village pre-school and child minding services are regular users of the play park during the day. After school hours, weekends and holidays there are higher numbers of unaccompanied older children moving between the play park, skate park and sport wall.

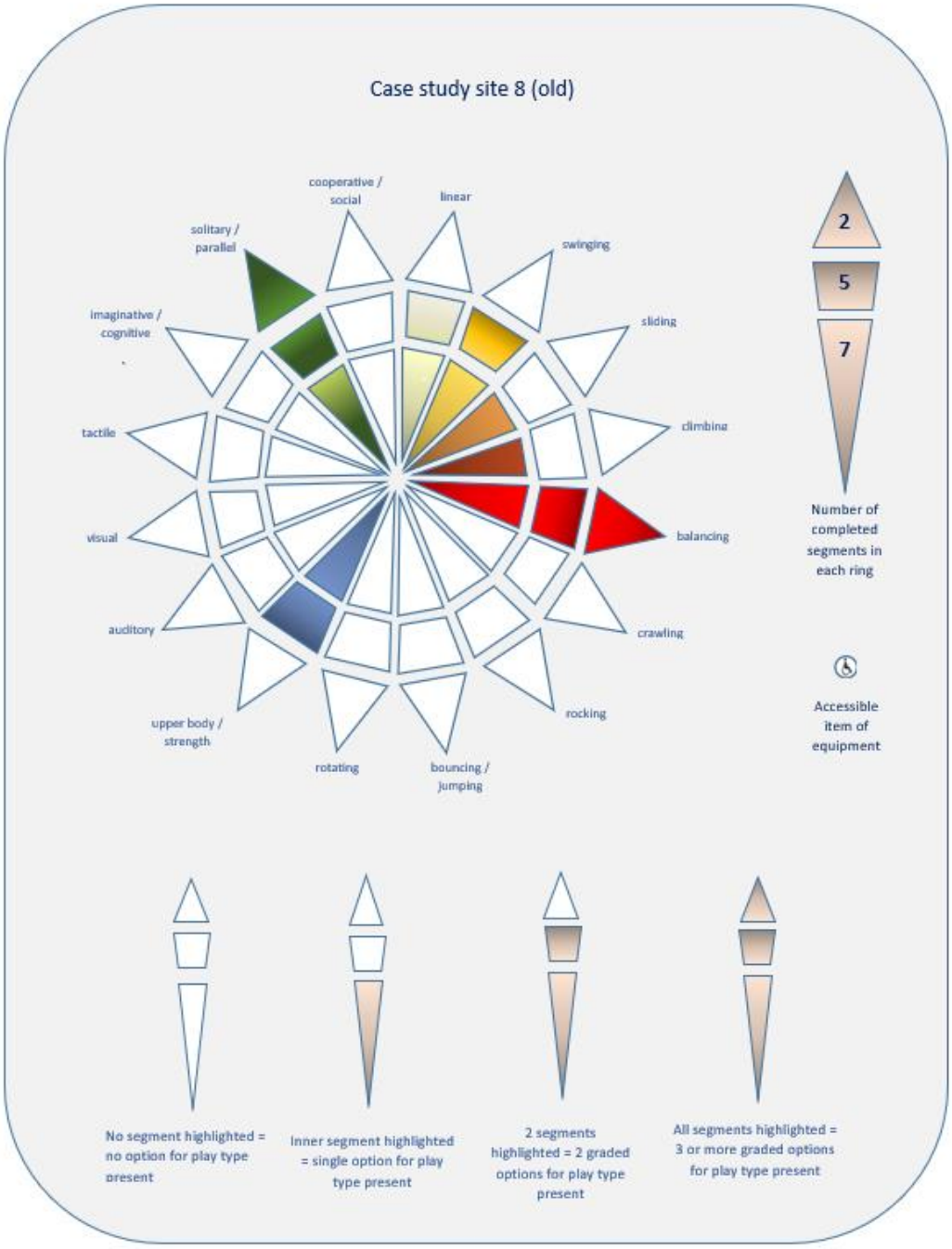


Figure 8.35 Play value infographic CSS8 (original provision)

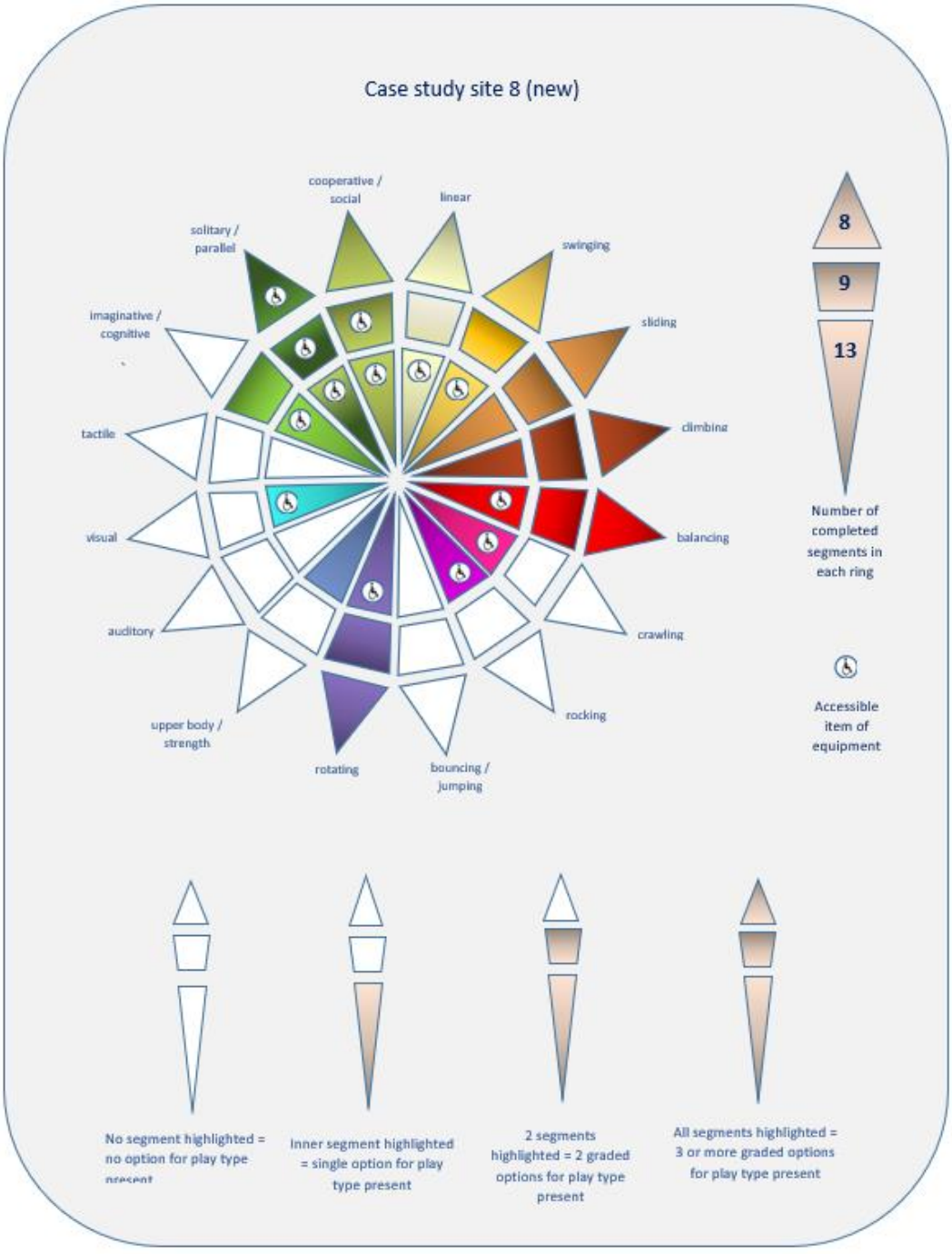


Figure 8.36 Play value CSS8 (current provision)

8.3 Site development

All participants in this investigation emphasised the complexity of the process undertaken to create, maintain and develop play parks. Play parks are part of the built environment and as such cannot be viewed as disconnected from the roads and facilities around them. Their position in relation to residential dwellings combines with the play opportunities they offer to impact on the level and type of use. Figure 8.37 illustrates the Nvivo10© nodes linked to the theme 'play park sites'. Of these three are presented in this section, with the node 'target user group' reported in section 8.13 linked to design choices made by play park providers.

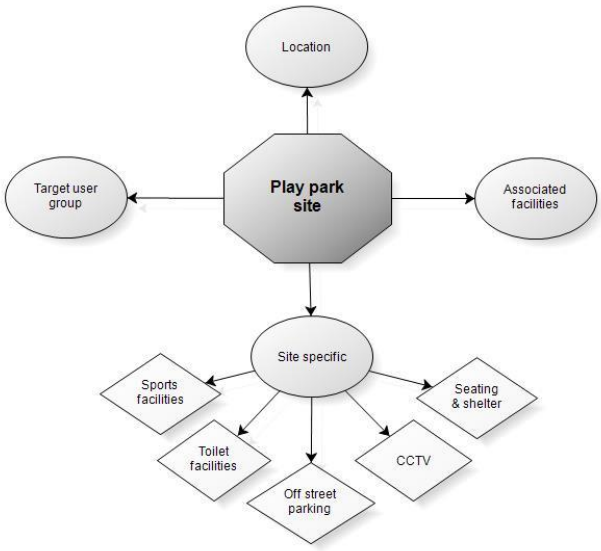


Figure 8.37
Nvivo10© nodes relating to play parks

8.4 Location and setting

As highlighted in the literature review the size and position of a play park is influenced by factors including the ownership and availability of land, advice provided by bodies including Play England (Shackell et al.,2008) and Fields in Trust (2015) and historic provision. Of the eight case study sites in this investigation 50% (CSS 3,5,6 & 7) involved existing sites; new provision added to, or replacing, established equipment. Two case study sites had the opportunity to select a preferred location, albeit within a designated area (CSS1 & 8), and two (CSS2 & 4) created new provision in locations specified by their City / Parish Council.

Participants considered the location of play parks to be influential in how they are viewed within the community, their position and access to other community amenities relevant. Locations of the play parks differed in that they are in rural, urban and city areas, these settings in part influencing the selection as a case study site. The setting of each play park had been considered by participants and was acknowledged as key to its perception as a community facility or asset. The position of case study sites within each community varied, with access points from road or parking areas varying between 40m and 150m. CSS1 and 4 are village locations within greenfield sites at the edge of the village boundary and were set away from the road or parking. All other case study sites are located within green spaces, parks or gardens with adjacent residential areas, approximately 40m from a paved access point or parking area.

Ensuring a play park is well regarded by local residents supports its use, which in turn may reduce instances of anti-social behaviour. Two case study sites considered re-location of an existing play park. CSS4 opted to move from a central point adjacent to the village hall to a larger site on the edge of the village. This was not considered a relocation away from the village as the site is co-located with football and bowls facilities, a dog walk area and further development planned providing facilities including tennis and netball courts and toilet block. 4A-EM-PW describing it as a '*busy area with lots of village activities'.*

CSS8 saw the provision of new equipment as an opportunity to review the play park position and initially proposed to move it 250m, away from the 'park and stride' car park for the school (A) to the edge of the green space (C) (Figure 8.38).

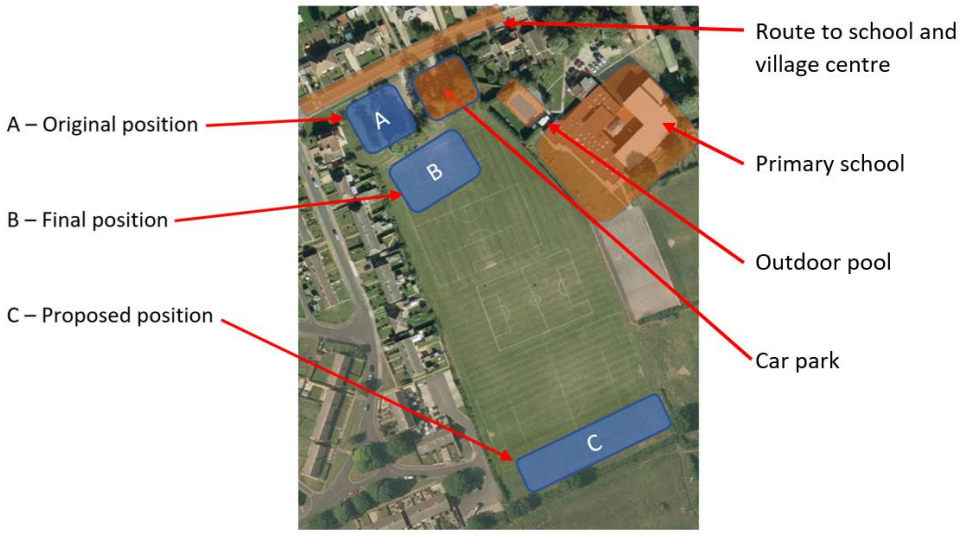


Figure 8.38 Options for play park location CSS8

The residential area adjacent to (C) is set on a cul-de-sac and concerns over the impact on residents and costs of installing a pathway from the car park led to a decision to create the new play park (B) adjacent to original provision. 8DT-EM-BF advising *'it's where we are now, it's well used, busy, not tucked away as if it isn't part of the village we want to see',* and '*being as it's a village facility, well, it needs to be part of* [the] *community'.*
The play park at CSS6 is similarly located to CSS8; on the edge of a large green space adjacent to a cul-de-sac residential development. Concerns over its location not an issue as the land is owned in trust for the town. Casual use and regular community events have generated a sense this is the town's *'main play area, others are smaller, used by those close by, but we all use ***and the play park is part of that'* (6PG-E-HF).

8.5 Associated activities

Within urban areas access to play park provision is not necessarily restricted to a single option therefore distance travelled may be based on preference, play value offered, or associated facilities.
Table 8.10 illustrates the linear distance between case study sites, residential dwellings, sports facility (tennis court, football pitch etc.), skate park, alternative play park provision, closest school and outdoor swimming pool. These distances calculated with the linear distance tool available in Google Maps; this process illustrated in Figure 8.39 showing the distance from the car park to play park / pool entrance.

Figure 8.39 Distance measurement within Google Maps

Each of these has relevance to children's activities or opportunities for play and independent mobility. The presence of off-road parking, or site relationship to routes to school impacts on the use of play parks. This either through the requirement for parents supporting access (car transport), or including time spent in the play park as part of the journey to or from school. These aspects relevant to location, the frequency of use, and user groups accessing play parks.

Case study site	Residential dwellings	Off street parking	Public toilet	Sport facilities	Skate park	Alternative play provision	Outdoor pool	School (closest provision)	Bus stop (closest provision)
1	350	25	20	1300	1300	1000	n/a	1000	n/a
2	125	80	85	20	4000	1000	500	450	170
3	30	270	300	50	430*	900	400	300	380
4	130	50	n/a	40	1500	n/a	1500	500	300
5	35	400**	20	100	60	500	50	270	500
6	30	100	600	150	800*	900	700	640	200
7	50	230	1500	90	1000	1000	n/a	500	30
8	30	50	400	70	200	625	60	80	60

*Agreed provision awaiting insallation ** limited accessible parking on site

Table 8.10 Linear distance from play park (metres) of local facilities

8.6 Site specific facilities

Play parks are frequently located adjacent to or in the vicinity of other publicly accessible facilities. The presence of these will have an influence on the pattern of use at individual play parks.

Site specific facilities – Parking

Three case study sites (CSS3, 6 and 7) lack options for off-street parking with direct access to the play park. CSS5 has limited parking spaces for Blue Badge holders, requiring car users to park on residential streets with parking restrictions (Figure 8.40) albeit with a three-hour time allowance.

Figure 8.40 Parking restrictions CSS5

7MN-EM-BR advised for CSS7 a request had been made for off-street parking, '*because*

that one doesn't have any clear parking or entrances' (Figures 8.41 & 8.42).

Figure 8.41

Access from main road CSS7

Figure 8.42

Route from residential area CSS7

CSS1 expected play park users would both travel by car and have additional needs, creating a parking area to '*ensure safety next to a busy road'* (1TB-SW-LM). The three remaining play parks had off-street parking areas, however as these play parks were co-located with sports and other facilitates availability varied. As noted above, CSS5 had marked accessible parking bays, as do CSS2 and 8. Parking at the remaining case study sites (CSS1 & 4) without marked accessible bays.

Where there is an expressed intention to provide facilities for users with disabilities (CSS1, 2 & 3) parking was available at two sites. For CSS3 the need to negotiate, and eventually compromise, with the District Council regarding which play park was refurbished removed the option to provide any off-street parking. Here the availability of parking further reduced during football training, matches, weekends and evenings as spaces are taken by residents.

Limited car parking at CSS6 (Figure 8.43) was acknowledged as a potential issue given their aim to provide a 'destination' play park encouraging use by those outside of the immediate area:

> 6PG-E-GB*: 'There's nothing nearby and whether or not this is something the council would look at.... maybe on the corner - it's all double yellows. It's not that far away, but if you have got people coming as destination the neighbours might raise a few eyebrows.'*

Figure 8.43 Parking restrictions CSS6

Provision of off-street parking was considered beneficial, but the risks associated with its location adjacent to play facilities were noted at CSS8 as the provision is fenced with low level 'step over barriers' (Figure 8.44). 8DT-EM-BF considering '*it's not safe, kids run out* [of] *there into the car park.*

Figure 8.44 Step over fencing CSS8

Consideration for use of other forms of transport was considered at two sites. To encourage access by cyclists a cycle rack is installed at CSS6, and the intention was to provide one at CSS4, where funding had been secured, but the Parish Council refused permission for its installation.

Site specific facilities - Sport

Where play parks are co-located with, or close to other play / sports activities, use can be higher, as sports activity may be combined with an opportunity to play; or family members may choose to use the play park whilst others engage in an activity such as a football match or training session. Table 8.11 shows the activities co-located at case study sites. The positive impact on user numbers through the presence of alternative activities on site was recognised and as an argument in support of improvement.

2LG-SW-DW: *'it's there for the kids who aren't playing football, who might be bored, they have somewhere to play, something to do'*

3TT-E-KW*: 'Don't you think people will use it when they come and watch* [football matches]?

Case study site	Football / rugby	Tennis	Swimming	Skateboarding	Other
1					
2	✓	✓			
3	✓				
4	✓				Bowling green
5		✓	✓		Pitch & putt
6					
7					
8	✓		✓	✓	

Table 8.11 Co-location of sports facilities at case study sites

Moreover, the presence of regular sporting activity within green spaces was identified by participants as an influence of the provision of additional facilities benefitting play park users. CSS5 having a café and accessible toilet facilities within the play park boundary, adjacent to sports activities, and CSS2 accessible toilet facilities located within the closest car park. Both CSS4 and 8 consider the play park provision to sit within planned schemes including pavilions with changing rooms and toilet facilities.

Site specific facilities - Toilet

Case study sites co-located with sports facilities had a higher frequency of toilet provision, either in situ, or planned within a wider scheme. CSS3 the exception as, although within a green space including football pitches, the toilet facilities were only available during

football practice and matches, their use restricted to those associated with this activity. A single case study site not co-located with sports facilities (CSS1) installed an accessible toilet within the site. This in recognition that users travelled to access the play park, and had additional needs linked to personal care tasks (1TB-SW-LM).

CSS6 and 7 did not consider the provision of toilet facilities at their case study sites within their remit, focusing solely on the provision of play equipment.

Site specific facilities - Seats and shelter

Seating was provided at all case study sites, generally considered a facility for parents or adults accompanying children. Four design types for adult use were identified (Figures 8.45 to 8.48).

Figure 8.45
Bench without back support

Figure 8.46
Park bench with back support only

Figure 8.47
Park bench with back support and armrests

Figure 8.48
Picnic bench with integrated seating

The decision to provide seating was viewed as an opportunity to provide for comfort:

> 6PG-E-GB *'A better area for parents to sit and watch in in the summer'*
>
> 8DT-EM-BF *'because its grass for the parents, and having some tables there so they could watch the children, but be quite comfortable themselves'*

and, through consideration of location and position, provide socialisation opportunities:

> 4A-EM-DH*: 'putting benches in at 90° so people can sit and talk, you've got to be social'*

Whilst also ensuring parents can oversee children's play:

> 7MN-EM-BR*: 'I try and space them [seats] out, normally where the parents can sit and obviously see their children, …but normally it's, spaced out, sight-lines where they can see the children.'*

Seating for children was identified at five case study sites. Three sites provided designs appropriate for younger children each taking different approaches. CSS1 provided benches and picnic tables of a smaller scale to adult provision (Figure 8.49), happy for these to be relocated around the site.

Figure 8.49 Seating CSS1

CSS4 installing sleepers into a grassed bank (Figure 8.50)

> '*as a playgroup asked us if they could have something like that so they can go over there and do story-time'*
>
> (4A-EM-DH).

Figure 8.50 Inset sleepers CSS4

Seating for children at CSS7 is integrated into an item of play equipment (Figure 8.51) providing two benches however this could lead to conflict with children actively using the equipment.

Figure 8.51 Integrated seating CSS7

Provision of seating for older children is included at two sites (CSS4 & 8) through the installation of 'youth shelters' (Figure 8.52) providing opportunities for older children to gather and socialise without '*causing friction*' (8PR-EM-JG).

Figure 8.52 Youth shelter CSS4

Youth shelters also provide opportunities for site users to avoid rain or sun if required. To meet this need at CSS2, whose remit was the provision of accessible facilities for wheelchair users, a large, purpose-built structure was provided (Figure 8.53), used for similar activities as the sleepers at CSS4; for story-time and for picnics as well as '*somewhere for teenagers to hangout'* (2LG-SW-DW).

Figure 8.53 Shelter at CSS2

Site specific facilities - Closed circuit television (CCTV)

The use of camera monitoring to prevent or monitor anti-social behaviour had been considered at all case study sites, 6PG-E-GB reflecting on CSS6 advising '*people are concerned about vandalism, there's no lighting, no cameras*'. Three case study sites (CSS2,5 & 8) were monitored by CCTV; CSS5 as part of a general scheme covering the wider area. Installation of cameras at CSS2 was in response to anti-social behaviour; '*misusing, orgies, drinking, wrecking*' (2LG-SW-DW). This provision an extension of existing coverage in this area and assisting with a reduction in these behaviours, supporting the work of Police Community Support Officers. At CSS8 8DT-EM-BF advised the intention of CCTV installation was to prevent misuse.

Of site specific facilities the presence of seating was identified by participants as key to successful provision for adult users. CCTV was viewed as a deterrent, preventing anti-social behaviour and the provision of both toilets and dedicated parking as facilities the providers aspired to achieve but which were not within their remit to provide.

8.7 Community

Alongside the physical attributes of a site the community for which it is provided will also influence aspects of provision.

Involvement

Collating results within Nvivo10 © identified that participants considered community *'Involvement'* as factor influencing their approach to provision indicating a link between the projects and local communities. The levels of engagement identified varied and this was reflected in the perception of interactions, and in levels of support experienced. As play parks are local facilities established for the use of communities it could be expected they would be linked to positive attitudes and their use by all welcomed, however this was not always apparent. Participants 1TB-SW-LM and 2LG-SW-DW both linked community attitudes to the presence or lack of opportunities for those with a disability:

> 1TB-SW-LM: *'*[children's] *behaviour not being tolerated or understood in other settings, so they couldn't take their child to their local playground*'

> 2LG-SW-DW: *'I think that there needs to be a cultural change. The play park provider I met quite early in my project said that there are 98% of children without disabilities, you're wasting your time on the 2%'*

Whereas the issues highlighted at Case Study 3 related to the general area and anti-social behaviour:

> 3TT-E-KW: *'people were very quick to complain, there is the culture, it's not a great area there are problems and there can be people hanging around, they've broken the equipment, they filled the springer full of rubbish*'

For participants at CSS4 the impact of some members of their community's negative response to their project was felt at a personal level; but balanced by positive reactions from others.

> 4A-EM-DH: *'There has been an element I think from our Parish Council*

particularly of 'what are women doing?', it's definitely been a lot of personal opposition'

4A-EM-PW: *'We've had a few negative responses but so many fantastic positive responses, mums, grandparents, there have been a lot of positive responses'*

Not all case study sites experienced negative reactions and CSS1, 2, 4 and 5 had ongoing links with local community groups including support from schools, volunteer groups and children's organisations such as the Scout Association.

Consultations with local communities are a key to ensuring ongoing support for any local facility including those provided for children and young people. The relevance of this was recognised, and the importance of this to interview participants resulted in the creation of an Nvivo10© node 'Consultation'; the results from the data analysis of this node are discussed in Section 8.2.

Inclusion

Each of the participants considered their play park to be an important part of the local community, to be open and *socially inclusive,* to encourage as high a level of use as possible.

1TB-SW-LM: *'intention has always been that it includes everybody else that makes up their [the child's] network, and so that means children bringing their school friends'*

2LG-SW-DW: *'this is for all ages and abilities, its open to anybody, whatever your social background'*

4A-EM-DH: *'some play parks have age 'up to 12', we wouldn't have that now, would we?'*

4A-EM-PW: *'sometimes we shared [fundraising] with another group in the village to make it more of a community involvement'*

7MN-EM-BR: *'They are community facilities, for all'*

However not all welcomed visitors from outside of their immediate locality; *'we are getting children from all over, but I guess that's ok',* (4A-EM-PW) implying this had not been their intention when creating the play park.

The concept of 'social inclusion'; that is provision supporting use by a wide range of social groups, was considered separately by participants from six case study sites. Aspects of provision supporting users with disabilities (referred to as '*accessibility'*) key to the provision at CSS2, where 2LG-SW-DW advised '*all are welcome, whatever and whoever*' emphasising this throughout her interview. The approach at CSS1 differed as this play park is primarily for those with disabilities, family and friends welcome but only if accompanying a disabled user.

8.8 Consultation

The creation of community facilities including play parks should take into consideration the wishes and opinions of those residing in the area. How consultation was enacted or interpreted varied across case study sites. All participants advised they completed consultations either prior, or during, the play park development process, with differing levels of involvement with local populations, groups or individuals, and the methods utilised.

Local engagement

Local engagement in this context relates to direct contact with individuals offering the potential for their input to directly influence the decision-making process.

All participants reported consultation was an aspect of their development process, however the degree to which this was utilised varied. Six case study groups considered this a key action; in contrast this was considered as an occasional option at CSS5 and 7. This difference in approach appears to be linked to the size of the target population rather than the group's status (volunteer or statutory). CCS1 consulted annually, actively seeking feedback and suggestions on how to develop their facility. Six case study sites completed comprehensive consultations prior to, and during the initial stages of their projects. This is contrasted by the approach at CSS5 and 7 where consultations were secondary to decision-making by elected members or council employees. Both of these case study sites are within urban centres with large populations. CCS2, set in a similar area, committed to and undertook large-scale consultations; we '*asked basically anyone who moved what they thought about it* [the planned play park] *and would they use it*' (2LG-SW-DW). In this instance the ethos underpinning the play park was the provision of

a facility for those with disabilities; arguably a smaller target population within the city. This group, with parents and carers, participated in more focused consultations completed later in the development.

8.8.1 Participants in case study site consultations

Consultations completed by case study participants sought the opinions of different groups. Those identified include children and adults (generally parents or carers), schools and voluntary groups. Also consulted were statutory services who, whilst not users of the play parks, have the responsibility to ensure those using them remain safe and to minimise anti-social behaviour.

Children

Two case study sites (CSS7 & 3) enacted changes without direct consultation with children. In both the development was provision of additional equipment to established sites. CSS7 initiated the project in response to an informal request for equipment for younger children made by parents from a local toddler group. This coincided with an unplanned discussion with assistants from a local special school during a play park inspection. Here the view taken was that changes were low level in relation to the overall area. In effect changes, although providing several smaller items, were not sufficient to warrant a consultation;

> 7MN-EM-BR*: 'But just for one piece of equipment we wouldn't advertise that we're doing that'*

CSS3 was volunteer-led seeking to provide a wider range of equipment promoting accessibility for children with disabilities, this achieved without seeking the opinions of children. Reflecting on the process by which the equipment had been identified 3TT-E-KW commented *'If I was doing it now I know exactly what I would do, and very differently and I think it could have been much better'.*

Case study sites with major re-development, or new sites, actively consulted with children across a number of settings (Table 8.12) participants considering consultation as being essential:

> 8DT-EM-BF: *'because we felt it was important the children can*

choose, because they are the ones that know [what they want]'

6PG-E-GB 'We asked all the local schools; we had to'

Case study site	*Individual consultation (no parent)*	*Individual consultation (with parent)*	*Pre-school / School*	*Voluntary sector group*	*Focus group / Committee member*
1					
2			✓	✓	
3					
4	✓	✓	✓	✓	✓
5		✓	✓	✓	✓
6			✓	✓	
7					
8		✓	✓	✓	

Table 8.12 Consultation with children

The concerns around 'stranger danger', the understanding, or interpretation, of risk and the accepted social norm of not approaching a child without the presence of, or agreement by, their parent creates ethical concerns or considerations for both informal and formal consultations. Whilst not following a formal ethical application process, participants advised this influenced and constrained all but one of the groups who actively sought out the voice of children and young people.

The most frequent setting for child consultations was within a group; school, pre-school or local voluntary organisations such as Scout or Guide group. Choice was dictated by the presence of these within the local community therefore varying across case study sites. In all instances where child consultation took place local pre- and primary schools were consulted utilising various methods. As with voluntary sector groups this was negotiated via the responsible adult(s) who remained present throughout consultation sessions. Consulting children accompanied by a parent or carer was approached in one of two ways, informally in play parks or local area, or through stands at local events (CSS2 & 6). A single case study site (CSS4) approached children without parental presence or

permission. Here concerned their previous consultations had not engaged with local teenagers they took a decision to contact them directly:

> 4A-EM-DH: *'we met the older ones after school, off the school bus and asked if it was alright if we spoke to them, as clearly, they haven't got parents with them, and they helped us'.*

This direct approach resulted in increased involvement by representatives from this age group who became active participants in fundraising activities. Here a pragmatic view was taken, as the community is a small village and the children and play park volunteers knew each other by sight, eliciting their view in this matter considered '*the lesser of two evils*' (4A-EM-PW).

Parents / adults

Participants at seven case study sites considered they had consulted with parents at a level appropriate to the works to be carried out. CSS1 adopted a different approach to other case study sites maintaining a voluntary database of park users consulting annually to identify problems and areas for development.

At CCS7 the installation of new equipment was initiated by parents who became participants in the limited consultation process by default. This restricted consultation reflecting the opinion of 7MN-EM-BR that the low level of planned development did not warrant the time and expenditure involved with wide-ranging consultations.

CSS3 adopted an arms-length approach to consultation, consulting with parents via media requests and seeking digital feedback via online surveys. Other case study sites were pro-active in consultations utilising a variety of methods and contacting as wide a range of parents as possible, CSS4 contacting all village households.

Schools / groups

Approaching schools and children's groups were the main methods of consultation with children by six case study sites. CSS1 would consult with school groups if they had joined their database; but would not actively seek school participants for feedback surveys. In line with their arms-length approach to consultation CSS3 and 7 did not consult with local schools or groups directly, although CSS7's decision to provide additional equipment was initiated via unplanned site meetings with parents and teaching assistants which led to short follow-up discussions. The number of schools and groups consulted with varied

reflecting the size of local populations and the number of schools located within the immediate area (see aerial views in case study summaries).

For consultations with special schools and disability support groups approaches differed, even for groups aiming to provide accessible facilities, and promoting access for all abilities. CSS3's aim was to provide play equipment in an existing play park to promote play for children with disabilities, however no direct consultation was carried out with the local special school or other disability groups. This in part because proposals evolved from discussions in a local disability support group co-ordinated by the lead volunteers:

> 3TT-E-KW: *'[it] came out of the group, because there was nowhere for us to take our children out … [it's] very limited and it was really just we would find it difficult to go out for the day'*

and

> 3TT-E-KW: *'We knew what we needed to have so our kids could play'*

CSS4 considered the need to accommodate users of all abilities in their plans:

> 4A-EM-DH: *'we have done this for the future of the village, that we would make sure that at least some of the equipment was accessible for less-able children.'*

This group did not seek out the views of disability groups or special schools, as they believed there was '*no current need within the local population*' (4A-EM-DH). Where consultations with disability groups and special schools were carried out these were considered useful as this was an opportunity for them to:

> 5YM-N-PH*: 'tell us what has worked and what hasn't, what type of activity their children like to do.'*

> 8DT-EM-BF: 'we went to see *** School their play park and [learn] how they coped with different disabilities'

Statutory services

Consultations were not limited to local residents and potential play park users including discussions with local police forces. This was in response to concerns over anti-social behaviour liked to specific incidents. CSS2 advised that liaising with the local police prior to beginning work on their site would have avoided problems resulting from anti-social behaviour, as they would have been aware the site of the park *'was highly contested turf*

between two gangs' (2LG-SW-DW). CSS5 sought advice when replacing a large modular unit which had been misused, with discussions making them: '*realise a more open structure was needed to stop the rough sleepers and drug paraphernalia*' (5YM-N-PH).

8.8.2 Methods

There are a wide variety of consultation methods available to groups, either utilising direct contact or 'arms-length' approaches. Those utilised by the case study sites are listed in Table 8.12. This illustrates the difference in approach between case study sites. The lowest level of consultation, utilising two methods, was adopted by two case study sites (1 & 7), both using individual interviews to elicit information or preferences. CSS1 selected an indirect approach to gather additional information, and CSS7 utilising two direct approaches; informal unplanned individual and group interviews.CSS5 and 6 employed the highest variety of consultation methods, four being indirect approaches and five direct. Across the eight case study sites the mean number of approaches adopted was 6, direct approaches preferred to indirect (25/20).

	Indirect approach				**Direct approach**				
Case study site	Questionnaire	Media request	Social Media	Site visits (no users)	Individual Interview (informal)	Individual Interview (targeted)	Group interview	Workshop activities	Site visits (with users)
1	✓				✓				
2	✓	✓			✓	✓	✓	✓	✓
3	✓	✓	✓	✓					
4	✓	✓			✓	✓	✓	✓	✓
5	✓	✓	✓	✓	✓	✓	✓	✓	✓
6	✓	✓	✓	✓	✓	✓	✓	✓	✓
7					✓		✓		
8	✓	✓		✓			✓	✓	

Table 8.13 Consultation methods adopted by case study sites

Questionnaires

Questionnaires were the most frequently utilised method of consultation, adopted by seven case study sites, the exception being CSS7. Methods of distribution either

hardcopy or digital (via an email list or online survey). Three case study sites (CSS1, 5 & 8) utilised both methods, whilst two sites (CSS2, & 4) opted for hard copy only. CSS3 and 6 used online surveys to elicit feedback on their proposals.

Participants reported their choice of questionnaire delivery method related to two factors. Firstly, the size of the target population to be consulted. CSS4 hand delivered hard copy questionnaires to each household within the village, the small population (given by 4A-EM-PW as approximately 700 homes) considered a viable option for the committee. CSS2, situated within a city, sought feedback on the proposed play park through limiting the questionnaire to '*schools and community groups around the area'* (2LG-SW-DW). This targeted population enabling the volunteers to deliver hard copy questionnaires and review resulting data which otherwise would have been '*overwhelming*' (2LG-SW-DW). For CSS1 an annual survey is provided to a limited population, current users and 'friends' of the play park via hard copies available on site, and email copies to those registered on the play park's database. Aiming to reach the widest population possible more generalised questionnaire consultations were employed by CSS3, 6 and 8; CSS3 circulating a link to an online survey site via local media. The remaining two sites provided hard copy questionnaires through stalls at local events, alongside links to online surveys via local media, websites and social media (Facebook and Twitter).

The second factor relating to consultation via questionnaire was the age of group members leading each play park project. Where the group consisted of older members (> 50 years) the method of distribution was by hard copy as '*we are all older, we leave that digital world to the young ones'* (4A-EM-DH). Groups led by those below the age of 40 such as CSS3 and 6 viewed online surveys as key as:

> 6PG-E-GB: *'it's how we communicate these days, parents link on social media, like using [local parent's Facebook group] to advertise our survey'.*
>
> 3TT-E-KW: 'We got a good response this way, it's easier as our age [group] are so used to this'.

The questionnaires used an average of 10 questions covering the following areas:

- The age of the respondent
- Frequency of visits to play parks
- Play preferences at the existing play park

- Requests for new items of equipment
- Concerns around the existing play park
- Requests for practical support (committee members / site maintenance)

Response rates varied with CSS1, 4 and 8 describing these as 'good' but no case study site recorded the number of responses, as the aim was not to collect quantitative data, rather utilising questionnaires to gain an overview of preferences and concerns.

Media

Informing local communities of planned play park developments, progress and fundraising events requires publicity, all but CSS7 utilising local print and broadcast media to ensure the widest audience could be reached:

> 4A-EM-DH: *'We did it all, posters, newspapers, radio, we did it all to get the word out about what we were doing'.*

Parish, district and city councils also utilised their in-house magazines or leaflets which were distributed across the relevant areas increasing coverage in addition to local media outlets. Ensuring the mention of planned projects meant feedback outside of the questionnaire(s) was received

> 5YM-N-PH: *'adding to what we had already learned even after all the questionnaires were in, and hearing from people who wouldn't have filled them in'.*

Social media / Websites

A single case study site (CSS6) utilised both Facebook and Twitter accounts as part of their local engagement strategy, considering these the main communication methods used by parents. Additionally, they actively sought out, and became members of local social media communities, using these to provide updates on progress, and to gather support for fundraising and other activities. Case study sites 5, 7 and 8 utilised the parish / town / city council Social Media accounts to highlight proposals, rather than creating specific accounts. It was acknowledged this was not the most direct route however:

> 5YM-N-PH: *'its councils and their limitations, so we have a council Twitter account, that sort of thing, which if we want something then we send it though to marketing, and they send out a tweet or upload it'.*

Three case study sites maintained websites specific to their play park. CSS1 and 2 created their sites after the park was established to assist with fundraising for future developments and calls for volunteer support, as well as generalised news. CSS6 created a website as they began fundraising and

> 6PG-E-GB*: 'would most probably carry it on...if we can find someone to maintain it, …it's too useful to lose really'.*

Site visits

Site visits by case study groups and individuals were completed both as accompanied and unaccompanied visits and were utilised as a way of gathering ideas by all case study sites. There were however different approaches adopted by case study sites.

Visits took three forms; the first of these is visits to other sites under the responsibility of the individual /s. Participants at CSS5 and 7; as council employees, described visits to other parks within their remit. The purpose of these visits being the inspection and review of facilities. These are viewed as opportunities to consider different items of equipment and reflect on other locations where these could be used. This reflection informing decision-making linked to case study sites. The number of play parks these participants had direct responsibility for (CSS5- 60 & CSS7- 31) meant they had a '*wide variety of equipment*' (7MN-EM-BR) which could be considered for other sites, supporting decision-making as '*I can see how it has been used and* [has] *lasted*' (5YM-N-PH). Therefore, these participants did not consider looking outside of their area of responsibility for examples of play park provision. CSS8's project was led by a Parish Council, their strategy involved Parish Councillors visiting other play parks in the local area. Similarly, CSS1's site visits by committee members were based around '*looking at specific items we have heard about*' (1TB-SW-LM) to assist in decision making.

Secondly CSS2 and 8 visited Special Schools to view provision, with a view to promoting accessibility through the choice of equipment. Due to the '*necessary permissions*' (8DT-EM-BF) it was not considered appropriate to include children on these visits.

The third method; accompanied site visits, arranged to gather ideas and information and enabling observation of children's play behaviours. These were organised as informal trips, children engaging in free play following which feedback was requested, the adults *'observing which bits* [sic] *were played on most'* (6PG-E-GB). Selection for site visits was

based on recommendations made in questionnaire responses or via social media, or through group members' personal experiences, focusing on *'local ones really, that's where our kids go instead of here*' (4A-EM-PW) and new provision:

> 6PG-E-GB: *'we went to X as they had £75,000 to spend and we wanted to see what they got with that*'.

CSS4 not only sought the opinions of the children visiting as part of their group, but also approached others using the play park:

> 4A-EM-PW: *'with the parents' permission asked if we could talk to the children also there'*

The purpose of visits was to ascertain which items of play equipment children enjoyed most, but also to identify which items of equipment were less effective in encouraging play; *'i.e. not worth us spending on'* (3TT-E-KW).

Interviews

All case study sites used interviews to gather information. CSS1, 2, 4, 5 and 7 used informal contact with play park users to gather information allowing discussions to be led by interviewees. For CSS5 and 7 these were initiated by the interviewee who wished to discuss an aspect of current provision with the responsible person for the play park. These general enquiries by residents or play park users were viewed as opportunities whereby council employees could elicit information about how users thought a play park should be developed. At CSS4 and 7 chance conversations were the catalyst which stimulated their interest and resulted in their involvement in the play park project. Targeted interviews took the form of both individual interviews and focus groups. The former being with parents and the latter with children. Where parents were contacted individually this resulted from permission indicated in a questionnaire response. No case study group adopted an approach by which 'cold calling' was used.

Group interviews were arranged via pre- and primary schools, and groups such as those linked to the Scout and Guide movements. This considered an approach which would not raise parental concerns, and effective in gathering a high level of feedback

> *5YM-N-PH: '*[we wanted to] *pick up as many different views as possible, we went to Cubs, Scouts, Brownies, local clubs, the local primary schools'.*

CSS6's approach differed as they attempted to include older children in their research considering focus groups as '*more age appropriate*' (6PG-E-GB), bridging the gap between group interviews and workshop-style activities (see below).

Workshops

Workshops are a practical way in which ideas can be shared and developed. This approach is familiar to children because this is often adopted in educational settings and in groups such as Scout and Guide movements. Additionally, activities selected can be tailored to the age-range of children involved, ensuring ideas of younger children can be elicited and considered in designs. Five case study sites used this technique, with each of these being linked to major re-design, or new play park projects. Where changes were part of an annual review (CSS1), or changes within an established play park (CSS3 &7) this was not considered as an appropriate method of gathering information or feedback. For CSS7 the addition of items to a park was not considered sufficient to warrant active involvement by a community:

> 7MN-EM-BR: *'I tend to visit a certain area, …I can back it up with comments* [from residents]'

In this instance additional equipment installed consisted of six interactive panels and a group of three railway themed play structures. This doubled the number of items within this area of the play park but was not considered a '*major alteration*' by 7MN-EM-BR. The third site opting not to use workshops (CSS3), regarded the use of social and print media as '*sufficient*' (3TT-E-KW) and, as there were only two individuals working towards the planned changes, they '*did not have the resources* [to complete wide-ranging consultations]' (3TT-E-KW). The five remaining case study sites considered workshops to be influential in their decision-making. These were facilitated by groups and schools in response to approaches by participants, and incorporated requests into planned activity timetables:

> 8DT-EM- EM: '*used it for tally charts and such in Maths'*

CSS4 adopted a less formal approach which was led by children's imaginations:

> 4A-EM-DH*: 'We didn't give them anything, no pictures or catalogues, it was all their own ideas'.*

Considering this approach to be very effective and informative:

> 4A-EM-PW*: 'We have what you see over there today, but we also had a Lego room, a beach complete with a picnic blanket and picnic, you had anything that they enjoyed. They had a little fishing lake, you name it, it was there'.*

Actively involving pre-school, school and local groups through workshop activities was viewed as a way of '*promoting community*' (4A-EM-DH) and, as a resource for children:

> *8DT-EM-BF: 'it was important they, children, choose because they are the ones that know* [what they want]*'.*

Workshop methods focused on visual materials via presentation or creation of images (Figure 8.54). The choice of source material (generic photos, catalogues) randomly selected by group members, rather than chosen in consideration of workshop members age and / or ability, apart from CSS2, who varied methods to promote access and understanding by those with differing abilities. Images stimulated discussion of preferences and dislikes assisting in decision-making:

> 5YM-N-PH: *'Good examples, bad examples, so that we could get a real feel for what those children wanted'.*

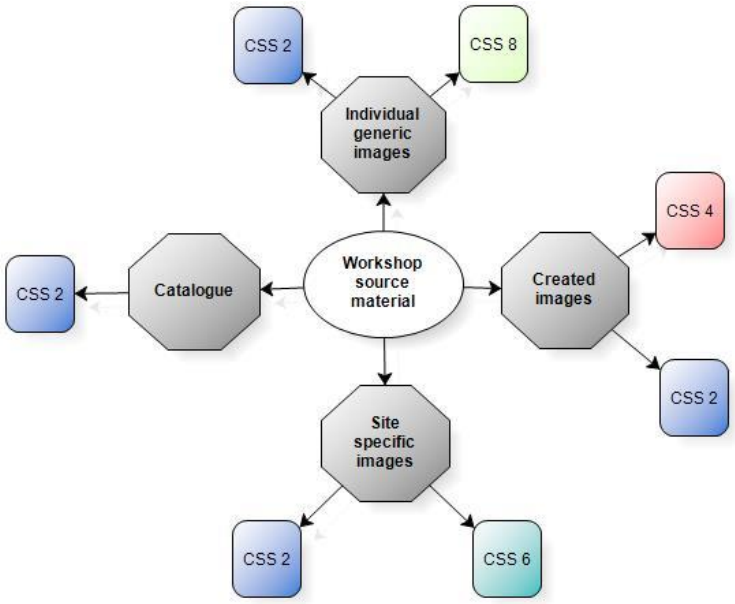


Figure 8.54 Sources of images for workshops

The outcome of workshops supported design decisions. Additionally, CSS4 and 5 utilised images created by school children, with CSS5 using these in a further consultation

exercise within an open event for the local population with attendees commenting on preferences and voting for the most imaginative design.

8.9 Play park providers

The provision of play parks requires an organisation or individual to take the lead, ensuring progress is made and the site completed. Across England the responsibility for play park provision varies, both in the initial creation of a facility and in the long-term maintenance. It is possible for play parks to be established on land which is owned by another body, or for the initial installation to be by a developer who then cedes responsibility to a Parish or District Council. This variety was considered as part of the selection criteria for the case study sites (Table 4.4).

Responsible organisation

The responsibility to provide play park facilities, funding, and ongoing safety and maintenance varies between case study sites (Table 8.14) and reflects the current situation within England. In most instances overall responsibility lies with the local council (parish, town, borough, district, city). Identification of a responsible body is complicated by differing practices such as illustrated at CSS3 and 6. These are situated within a town; but are not the responsibility of the Town Council as might be expected but sits with the District Council. The variations in responsibility impact on financing new fixed play equipment, which may be through fundraising by volunteers, direct council funding or a combination of both. Or, as with two case study sites, all or part of the responsibility lies within the remit of a Trust.

Case study site	Responsible body for site and maintenance			Current equipment provider		
	Council	*Trust*	*Joint*	*Council*	*Trust*	*Volunteer*
1		✓			✓	
2	✓					
3	✓			✓		✓
4	✓					✓
5	✓			✓		
6	✓		✓			✓
7	✓			✓		
8	✓			✓		

Table 8.14 Responsible body for site and / or equipment

Where responsibility for both site and equipment lies with the same organisation processes are clearer; for 5YM-N-PH and 7MN-EM-BR responsibility for all play parks within their authority area lay with them.

> 5YM-N-PH*: 'I am the only person who kind of manages them, I have one playground inspector who goes and looks at then on a weekly or fortnightly basis, and he reports back to me the state of play and what needs to be ordered, that sort of thing. So yes, I am the one with the most responsibility.'*

> 7MN-EM-BR: '[I am a] *community contracts officer. Because play areas are not just what I look after…* [I] *look after the south of the city and, after all the play areas in the city, and also a nature park'.*

This was viewed as a positive situation as it guaranteed continuity across sites and an '*overall idea of the big picture'* (7MN-EM-BR), however decision-making was subject to oversight and the requirement to cede some decisions. 5YM-N-PH advised due to the scope of the project at CSS5, the final decision was taken by a Borough Councillor as a Cabinet Member whose portfolio included play provision. This choice of design being contrary to 5YM-N-PH's preferred option, and one where she continued to have

'*reservations about having wood*'. This requirement to consult with elected members was echoed by 7MN-EM-BR who advised large-scale change:

> *'has to go through committee members and everything and if you want to make a big change it can take up to 2-3 years for anything actually happens. Unfortunately, that's just the way we work.'*
> *(7MN-EM-BR)*

Where the driving force behind changes are voluntary groups the need to consult, communicate and negotiate with relevant councils is essential. This can lead to tensions as described by participants:

> 2LG-SW-DW*: 'I got the distinct impression at the beginning, dealing with the city council; …he saw me as a threat and he was uncooperative and difficult'.*

> 4A-EM-DH: '[We had Parish Council] *opposition, … it has soured the whole process'*

This position leading to the group at CSS4 feeling a need to '*pre-empt anything that the parish council might throw at us'* (4A-EM-PW). Tensions did not always remain, 2LG-SW-DW advised the '*city council have been brilliant. They do maintain it for me'* and she had *'built up a good relationship over the years'.*

Even where a council is in full agreement with proposals this does not guarantee the scheme will be achieved. Initial meetings with the local council for CSS3 were positive. 3TT-E-KW advised:

> '[We] *met the development team of the council and they seemed quite on board, talked to local councillors, most of them were on board'* (3TT-E-KW)

However, after investigating options and confirming a preferred design with the council

> *'the day we had to go and meet with them, they retracted, said basically we've had to change it…. they said that we are going to split the money [to] deliver this park and two others'.* (3TT-E-KW)

The position for CSS6 was complex as the land is owned by a Trust who lease the play park area to the District Council. Here the voluntary group:

> 6PG-E-GB: *'met with the town council, Trust and District Council to try and work out,* (sic) *big learning curve who you need to speak to, who is in the know, what is the process'*

These four-way negotiations requiring the volunteers to actively negotiate '*between Trust and District Council to try to speed processes up'* (6PG-E-GB) and enable plans to progress. CSS1, owned and run by a trust, maintained a streamlined decision-making process with the Trust Board considering requests; provision of any item being subject to available funding. This was not considered an area of difficulty, although there is recognition personality and preference lead some to be more prominent in the process.

8.10 Finance

Those responsible for playpark provision or volunteers working to improve a local amenity must consider financial aspects. Different approaches are adopted for securing the required budget; the funding available then dictating the scope of provision. All participants referred to financial constraints, but did not consider these to be 'barriers', rather an accepted, essential part of the procurement process. This pragmatic approach was explained by 3TT-E-KW as:

> *'we'd made a wish list' and it was the most amazing looking park, but it was never going to happen because it was too expensive. So, then we were "right, its reality, let's do this, let's design it", …we kind of set ourselves a budget, the most we'd really like to spend'*

6PG-E-GB advised:

> *'it's what I thought, we needed a new play park, and we wanted it to be a good one…but I kind of knew that it was quite expensive'.*

8.10.1 Budget

Each case study site worked within a set budget due to the limitations of securing additional funds over and above contingency planning. The size of budget related to the scope of planned works, therefore CSS3 and 7 had smaller budgets reflecting the number and size of additional items for installation at existing sites. CSS1 adopted a model where continual work to develop the play park is ongoing dependent on fundraising or grant monies. The overall spend for these sites is lower within the timescale for the alterations considered for this investigation, but in total the equipment costs would be equivalent to

the mid-range spend of other case study sites. This suggests that the intention of all groups was ambitious but that the approach taken to provision was influenced by the funding options available. Most case study sites led by volunteers relied on fundraising and grant monies which affected the timescales taken to complete projects. This did not mean that case study sites led by councils did not experience delays linked to funding as the largescale development at CSS5 required the procurement process to adhere to European Union regulations. This tender process time-consuming and restricting the options for equipment selection as not all providers could be considered.
Table 8.15 illustrates the agreed budget for each case study site with maximum spend linked to planned development, rather than local population size.

Case study site	Local population (2015)	< £25K	£25-49K	£50-99K	£100-149K	£150-200K
1	5,620	✓ a				
2	127,300				✓	
3	14,000		✓ b			
4	1,000				✓	
5	75,950					✓
6	14,000				✓	
7	97,550	✓ b				
8	4,200			✓		

Table 8.15 Budget for creation / refurbishment of current play park

a) Continual programme of development b) One-off provision of additional items to existing facility

Expenditure associated with play park refurbishment or development was considered high. Whilst the cost of individual items of equipment was '*expected to be high*' (3TT-E-

LT), participants from volunteer groups expressed surprise regarding associated costs such as the removal of existing equipment and essential groundworks:

> 2LG-SW-DW*: 'The amount that goes underground and on paths – don't start me on those costs'*

> 6PG-E-GB*: 'The budget we have got at the moment doesn't even include taking away what is there'*

Council employees 5YM-N-PH and 7MN-EM-BR, with remits covering multiple play parks, were unsurprised by these costs having wide experience of the necessary works.

> 5YM-N-PH*: 'A lot [of the budget] goes underground, it can do, yes.'*

> 7MN-EM-BR *'when you stop and you look at it, you think where has the money gone? It's all the preparation that has gone into making it safe I don't think people, until they start getting involved with play parks, understand. You know, like your resident's groups; they'll go "the seat is only £4,000" but it isn't, it's all the contractors making sure it's done safely and such'.*

This awareness and access to annual budgets did not result in an ability to disregard these additional costs, this impacting on the ability to make changes or alter provision:

> 6PG-E-GB*: 'the council didn't have any money, [name of district council], they have got £20,000 a year and 40 parks, 2 grand a year for each park.'*

> 7MN-EM-BR*: 'I have a very, very, small budget …it's horrendous how much these things cost.'*

Costs associated with groundworks were considered an area where savings could be made; CSS3, 4 and 6 approaching local businesses for support 'in kind' to assist in cost reduction. To minimise the impact on their budget CSS8 relocated the proposed position of the play park as '*the cost of the path was so much; yet more money underground*' (8DT-EM-BF). However essential aspects such as safety surfacing underneath equipment required '*significant amounts*' (8DT-EM-BF) to be set aside affecting monies for equipment.

With the focus of a play park on items of fixed play equipment, the intention at all case study sites was these should be allocated the greatest budget share. Identifying suitable items of equipment and balancing cost against perceived play value was '*time-consuming*'

(2LG-SW-DW), but where a limited budget was available for accessible equipment, decision-making was affected by the higher costs associated with 'specialist' equipment. At CCS3 research and comparison highlighted inconsistencies with

> 3TT-E-KW*: 'some of the items, like one roundabout, significantly more than another with the same access'*

The reasoning for higher costs of specialist equipment is possibly due to lower volumes sold, '*translating into higher manufacturing costs*' (2LG-SW-CJ). However, this participant a sales rep for an equipment provider, advised they did not alter their margins for accessible equipment:

> 2LG-SW-CJ*: 'the mark-up or the margin is exactly the same, there is no difference'.*

An approach previously adopted by the council responsible for CCS5, had been to limit the choice of equipment and supplier, this perceived as ensuring adequate provision across all sites. 5YM-N-PH advised this was no longer practice as:

> *'it just meant what was the point of going to that play area because it was exactly the same as this play area, and that is something that I have addressed through time'* (5YM-N-PH).

This participant acknowledged the previous approach had an advantage for ongoing maintenance and repair as:

> 5YM-N-PH*: 'I can see why he did what he did, because then he could have the* [roundabout] *bearings in stock, and if he needed to take it off, could whip it off and downtime was a lot quicker'.*

Other items sited within play parks such as seating and waste bins were recognised as essential, but costly items. CSS2 selected two waste bin designs. The first (Figure 8.55) selected as a fun way of encouraging use, and others (Figure 8.56) based on cost as:

2LG-SW-DW*: '*[we have] *standard bins for the other two, as that rocket bin was unbelievably expensive, probably twice the price of the others'.*

Figure 8.55

Rocket waste bin CSS2

Figure 8.56

Standard waste bin CSS2

The initial cost of equipment was not the only financial consideration linked to selection, ongoing maintenance considered at all sites as:

1TB-SW-LM*: 'it's not good when we have stuff out of commission; it doesn't look good and disappoints visitors'.*

Longevity of equipment, supplier guarantee and ease of maintenance were considered important for all case study sites. Although differences in opinion were expressed regarding wooden equipment and structures, decision-making linked both to appearance and maintenance:

3TT-E-KW*: 'they* [District Council] *weren't keen on wood as they said it's about fire risk, and it's not sturdy when old'*

4A-EM-DH*: 'It's maintenance, and the children wanted colour and coloured wood takes maintenance, and that's money, and also it was the* [limited] *guarantees on the equipment'*

4A-EM-PW*: 'To be honest with you we looked at a lot of wood play parks and after a few years it is boring, it's all brown'*

5YM-N-PH*: 'I have reservations about having wood and when one burnt down obviously then I was like, exactly … does it last as long …I was concerned that in 5, 10 years' time we'd be doing the same refurbish. It has been higher maintenance then if we had gone with a metal one'*

> 6PG-E-GB*: 'really uninspiring, very dull grey bits of wood … it's not really what we were thinking, it's not something that makes you go wow!*

> 7MN-EM-BR*: 'I don't mind the wood constructions, I like timber if it is in a controlled environment, for me that's fine'*

Other ongoing costs associated with provision were recognised with site maintenance costs associated with grass a deciding factor for the choice of ground cover:

> 2LG-SW-DW*:* '[we've] *got the most expensive, most effective safety matting … around all of the trampoline, originally it was surrounded by grass, but it has taken such a hammering, invariably bits of it for the run-ups, it's actually compacted soil'*

> 5YM-N-PH*: 'We couldn't keep the grass growing, we get pits full of water … in the play area itself we've had to add additional drainage … we have had to do a lot of work as a constant battle and we re-turfed it and we put down grass reinforcement mesh and all sorts'.*

> 6PG-E-GB*:* '[landowner] *have said that they would maintain the grass areas … basically the problem we have got is that they have got the Job of maintaining their park and the abbey lawns, they all look beautiful, but because its* [the play park] *fenced and it's* [District Council's] *equipment, who pays?'*

> 7MN-EM-BR*: 'the grass mats? They tend to dip, are a lot cheaper than the wet pour, and they are cheaper than the bark, but they do need work'.*

Wet pour rubber surfaces were preferred over the use of rubber tiles as 7MN-EM-BR advised tiles '*lift', however* she also noted:

> 7MN-EM-BR*: 'wet pour rubber is more expensive, a lot more expensive. But the upkeep of that; it is very expensive to repair. Tiny little bits, about that size* [30cms x 30cms], *can cost you about £150 to £200 so I am now trying to move away* [from it].'

Other surface finishes considered were sand and bark. The need to refill these to appropriate levels to maximise fall attenuation was considered costly; 7MN-EM-BR advising over time the costing was equivalent to wet pour rubber. Additional time for inspection of loose fill surfaces for hazards including glass, stones or paraphernalia linked to drug-taking were also considered as adding to the overall costs of these surface

finishes. Not all costs were associated with equipment and installation. Planning consent may be required for large structures, and for changes within areas under protection through Grade II listing (CSS5) or within grounds of a Scheduled Monument (CSS6). For CSS6 the need to order equipment on behalf of the District Council meant other items were no longer affordable:

> *6PG-E-GB: 'Due to some red tape that we weren't expecting…* [we are] *making the purchase on behalf of* [District Council]. *Unfortunately, this means we have to pay VAT and will have to raise more funds for picnic benches and new fencing'.*

Each of the case study sites acknowledged the impact of these costs and the need to make compromises with 8DT-EM-BF advising:

> *'in the end and it came to the nitty-gritty, most of it would have to be fitted in, concreted or whatever, we had to look at that, and then found that we were running out of money to look at the small items'.*

8.10.2 Funding stream

The funding for case study play parks was raised via five sources: allocated Council funding including Section 106 monies, grants such as from the Big Lottery Fund, charitable applications, fundraising activities and donations plus gifts in kind. Table 8.16 illustrates which funding streams each case study site utilised.

Case study site	Allocated council funding*	Grant funding (National)	Grant funding (Local)	Fundraising activities	Donations (from individuals)	Gifts in kind
1		✓	✓	✓	✓	✓
2	✓	✓				✓
3	✓					
4	✓	✓	✓	✓		✓
5	✓			✓	✓	
6	✓	✓	✓	✓	✓	✓
7	✓					
8	✓	✓				

Table 8.16 Funding sources accessed by case study sites

*includes Section 106 monies

8.10.3 Council

Local councils (Parish, Town, Borough, District and City) most frequently have responsibility for play park provision. CSS1 was unable to access allocated funds for play activities via their local council as this site is run independently. The seven other case study sites able to access funding from this source, however only CSS3 and 7 were in a position to use this to fully fund their project. In both instances provision was for additional items to an existing site making this a feasible option. As noted previously for CSS3 this was a reduced scheme reflecting the restricted budget and limited support from the relevant council. CSS5's initial project was funded through Section 106 monies, with this seen as a benefit:

> 5YM-N-PH*: 'we had Section 106 money, all of the money, which gave us a good start, we weren't trying to achieve what funders* [fundraisers] *are trying to achieve so we could play with the money as we wanted'*

However shortly after completion replacement of a large play structure was required due to fire damage. This required alternate funding sources to meet the costs involved.

Annual budgets allocated by local councils for play parks may be insufficient to support new provision, 7MN-EM-BR advised these are designed to support '*routine maintenance, repairs and minor changes';* her £30,000 budget covering city-wide play park provision. Council funding for projects is most often provided via Section 106 monies. This funding arises from agreements laid out in the Town and Country Planning Act 1990 (Section 106). Councils and developers are required to set up formal agreements for local benefits, 'obligations' within the planning application process to mitigate the impact of developments (Community Land Advisory Service, 2013). There are limitations on how and where these monies can be spent, however this funding is appropriate for most play park provision and was used alongside other funding from local councils in seven case study sites. For CSS6 the funding from this source is '*approximately £40,000, making a good start, and it is monies which have to be spent*' (6PG-E-GB).

8.10.4 Lottery and charity

Grants are available for community projects via WREN (http://www.wren.org.uk/) and the Big Lottery Fund (https://www.biglotteryfund.org.uk/). Funding via WREN was accessed by CSS4 and 8 who met the necessary geographic criteria; being sited '*within 10 miles of a FCC Environmental landfill in WREN's operating area*' and providing financial support for public amenities which are '*open and accessible for the general public*' (WREN, 2017). This grant has additional restrictions, as a percentage of the award must be 'matched' by the responsible council prior to monies being allocated. This requiring an obligation for groups to liaise and work closely with the relevant council. CSS4's project noted the need for this commitment:

> 4A-EM-PC: *'a percentage of the grant WREN offer is needed to release any allocation made by them. Currently that amounts to 11% of any grant awarded. The Council can also apply for the recovery of any VAT element'.*

But requiring a commitment from the volunteers also:

> 4A-EM-PC *'so that we can move forward,* [volunteer group name] *has given an undertaking to give the Parish Council any monies they are required to provide to support this grant application to WREN'.*

The Big Lottery Fund allocates monies raised by National Lottery players for community projects without specifying geographic limitations. Two case study sites (CSS4 and 8) were successful in WREN funding applications and three (CSS2,4 and 6) were awarded funds by the Big Lottery Fund. CSS4 was the only site to access both funding sources. The monies awarded from these two organisations can be substantial, with WREN awarding CSS8 £50,000 and CSS4 £83,000, enabling large-scale projects to proceed.

Smaller grants from local businesses and charitable organisations are additional sources of support. CSS1 utilising this funding stream for individual projects such as the hide adjacent to a wildlife pond. CSS4 and 6, were also successful in local applications, accumulating smaller pledged amounts towards the total budget required. This latter approach described as '*time-consuming'* requiring *'reams'* of paperwork, therefore '*by the time you have actually done it a couple of months have gone by'* (6PG-E-GB). The time to prepare for grant applications was considered prohibitive for CSS1 who advised:

> 1TB-SW-LM*: 'we haven't had many dollops of money or grants from organisations, but sometimes we haven't really tried that hard because there are so many hoops to go through and they are very restrictive'.*

8.10.5 Fundraising

Fundraising activities were viewed as a way of increasing funds and engaging the community ultimately benefiting from the play park. Where a play park was already established, fundraising focused on single items. CSS5 working with the 'Friends of the park', *'when the castle burnt down they were up and running, and they were fundraising* [for us]*'* (5YM-N-PH) resulting in shorter, focused fundraising. Activities linked to new provision were ongoing, aiming to increase the overall budget available for a scheme. For CSS4 these activities were considered alongside other fundraising activities within the village to maintain good relationships.

> 4A-EM-DH: '[to] *avoid being accused, in a small village, of taking all the money* [from Parish Council funds].

Fundraising activities varied both in activity and scale. Most centred-on activities within the community where the play park is sited, to promote the facility as a local, shared amenity.

Donations are defined as: monetary gifts, generally small-scale and mostly insufficient to finance specific items or projects. All case study sites, except CSS7, had procedures in place to accept donations towards their specific play park site, although CSS8 did not actively seek these.

CSS1 and 5 placed donation boxes at the play park sites. A single case study site (CSS6) unsuccessfully utilised Crowdfunding as an alternative funding method. This approach focussed on specific items of play equipment such as a trampoline. In most instances donations were insufficient to purchase items of equipment or facilities. Sufficient funding did not ensure provision was agreed; CSS4 secured funds for both a pathway leading to the play park and cycle racks, but permissions from the Parish Council were withheld,

> 4A-EM-DH: '[name of individual] *has given us the money and it's taken me two years to get this money … and I shall go to him and tell him that this Parish Council isn't interested in his largesse'.*

voicing frustration these contributions would not be utilised and could be withdrawn.

Not all contributions were financial. To maximise available funding sites led by volunteers sought community support. CSS1, as an existing facility, received support from both play park users and volunteers to maintain the site, including a local community-based support group who joined the efforts. Yip (2010) reporting they assisted *'to clean the area and ensure the site is safe and functional',* this alongside a donation *'to the trust - £541 of this donation went towards operational costs, …the remainder was used to purchase gardening tools, … to use on the site*'.

CSS3 and 6, within their full re-development plans, sought practical support to prepare their sites and with groundworks:

> 3TT-E-KW: '[We] *had local businesses and helpers offering to help with the groundworks to try and cut some costs and make it a community thing.'*

Other contributions were made to enhance the aesthetics of the sites and introduce natural elements such as wildflowers (CSS1 & 4), bulbs (CSS2), and trees and hedging (CSS4).

Figure 8.57
Static 'rocking horse'

Not all donations in kind were embraced by the responsible group. CSS4 received an item of fixed play equipment (Figure 8.57) which did not in their opinion add play value or benefit to their site as it is a static item

4A-EM-PW advising '*a local business … wanted to donate a piece of equipment, and that's what they wanted to donate'.*

The need to raise funds and to secure pledges was a time-consuming and lengthy process, this accepted even where council funding meeting the majority of the required total.

8.11 Responsible organisation's play policies

How play provision is financed is for some responsible organisations guided in part by a play policy or strategy. These differ from the ethos underpinning the creation of an individual play park; being broader, encompassing different aspects of, and provisions for play. The Concise English Dictionary (Oxford Dictionaries, 2006) provides the following definitions:

- *Policy* - a course or principle of action adopted or proposed by an organisation or individual
- *Strategy* – a plan designed to achieve a particular long-term aim.

The volunteer groups involved with case study sites focused on specific goals or outcomes, i.e. the creation of a single play facility. Participants representing these groups advised they had not considered how their aim interacted with any relevant play policy or strategy, '*unaware'* (3TT-E-KW) these may be in place. Internet searches of relevant websites identified a draft strategy applicable to CSS2, this as yet un-adopted; play currently sitting within the wider leisure strategy for this authority.

4A-EM-DH and PW for CSS4 indicated they were unaware of any relevant strategy or policy, but later referred to advice on quality play provision contained within their County Council's play strategy.

For CSS5 and 7; sites under the responsibility of council employees, reference was made to council policy. 5YM-N-PH advised she had been involved in drawing up the policy which aimed to promote play across all ages and abilities, play parks sitting within this remit. Reference was made to the strategic play policy applicable to CSS7, the focus of this being on the safe provision of play opportunities covering areas such as fall-attenuating surfaces. (A relevant countywide strategy for play was identified through internet searches. This developed by the County Council jointly with local councils and is adopted by this city council whose policy focused on the detail of provision, and the policy referred to by 7MN-EM-BR).

8.11.1 Knowledge and experience of case study participants

Across the case study sites levels of experience in the provision of play opportunities varied, participants becoming involved through different avenues. Five case study sites were led by volunteers, one by a Parish Council, and two by local government employees, the route by which participants became involved / responsible being:

- *CSS1* – Volunteer: initially involvement offering practical support, currently Trust Chairperson
- *CSS2* – Volunteer: Parent of a child with disabilities. Led fundraising campaign and design choices to create an accessible play park
- *CSS3* – Volunteer / Parent of a child with disabilities: Led fundraising campaign and design choices to create an accessible play park with a second volunteer.
- *CSS4* – Volunteer group: retired, responding to an identified need for play facilities for children within a village
- *CSS5* – Local government employee, background in horticulture and landscape construction, parent of a child under 5
- *CSS6* – Volunteer: Parent of children under 10, responding to an identified need to re-furbish a play park
- *CSS7* – Local government employee: Community contracts officer, role developed over time to encompass play parks through team re-structure. No linked experience prior to taking responsibility, parent of a child under 10

- *CSS8* – Parish Councillor: Retired, no experience prior to election to the Parish Council

Information and support for play park provision are limited in scope, most frequently focusing on safety rather than design and choice of equipment. No participant was aware of the online course identified by the researcher. Volunteer-led case study sites approached projects based on personal experience, rather than acquired expertise using feedback from consultations (Section 6.4.2) to assist in the choice of equipment, with equipment provider support for overall design. This iterative approach explained by 2LG-SW-DW as

> *'they came up with various designs which I then went back and did more consultations, and we kind of tweaked it, and worked more with the 2 companies who came up with 2 completely different designs'*

And 6PG-E-GB as

> *'I think that we are all trying not to be too precious about the design, we want a good design, we keep putting it on Facebook, we keep getting feedback… that's what we will carry forward, when we changed it before it was; it had first this bit, and then that bit altered*'

Two volunteer-led case study sites, CSS2 and 4 sought information on equipment provision to promote play. 2LG-SW-DW as part of her post-graduate studies combining an academic approach with lived experience; and 4A-EM-DH and PW through their County Council's Play Strategy, '*provided at the very beginning, things like swinging, rotating, balancing; there were five*' (4A-EM-PW).

Although employed in a role requiring them to provide and manage play parks 5YM-N-PH and 7MN-EM-BR had no prior experience in this area. The changing structure of City Council teams and departments resulted in 7MN-EM-BR acquiring responsibility over a period of time. 5YM-N-PH advised she applied for a position linked to her horticultural experience, but '*they offered me this one'* noting this '*seems to be the way a lot of the people in my post on have come in, via the horticulture route'* (5YM-N-PH).

As Local Government employees 5YM-N-PH and 7MN-EM-BR are in a position to request training to support their roles but had been unable to identify appropriate courses to support the choice of play equipment. 7MN-EM-BR recognised this limitation advising

> *'I have a basic understanding of them [types of play] having worked at that section and with the person who was dealing with this [previously] so I had a basic understanding, but yes, but then it has progressed'.* (7MN-EM-BR)

Both these Councils employed play park inspectors with relevant Royal Society for the Prevention of Accidents (RoSPA) qualifications who reported directly to 5YM-N-PH and 7MN-EM-BR. Although not essential for her role 7MN-EM-BR had completed the same qualification as, '*if I am monitoring their* [play park inspector's] *performance I should be qualified to the same level that they are*'.

Lack of training regarding high-quality play park provision is not limited to those commissioning these facilities. Representatives of companies providing design and equipment at two case study sites (CSS2 and 6) advised their backgrounds prior to their current role had not been linked either to play, or working with children:

> 2LG-SW-CJ*: 'I took a break from the food industry, but my qualifications are in business accounting'.*

> 6WH-E-JF*: 'I was made redundant from my job in insurance claims, it's pretty much the same for all the reps working for* [names employer]*, very varied backgrounds'*

Both received 'in-house' training and shadowing opportunities to prepare them for their role, and considered their responsibility to be to follow the lead of those requesting input from their company, advising:

> 2LG-SW-CJ*: 'I think it is better to offer the right sort of advice rather than doing the easy sale'*

and

> 6WH-E-JF*: 'we consult on all aspects, they don't want to be* ***sold*** *to; its* ***work with****'* [researcher emphasis].

Accessibility and inclusion

Play provision is subject to obligations under the Equality Act (2010) concerning accessibility. The interview data highlighted how participants' understanding of access for users with disabilities was led by their understanding or interpretation of legislation. Where specific reference was made, this was to the DDA (1995). This legislation has been

repealed, no longer applying to provision within England, however no reference was made to the relevant legislation, the Equality Act (2010). Where made, references to legislative obligations were implied: '*because we have to have an access path for less-able'* (4A-EM-DH) and *'as it states, we are taking reasonable steps'* (7MN-EM-BR).

To achieve an accessible play park those creating and managing play parks require an understanding of the concepts of *accessibility* and *usability*. During participant interviews those involved with play park provision were asked to offer their understanding of these terms. For the three sites focusing on provision for those with disabilities (CSS1, 2 & 3) participants had confidence in their understanding of these terms and how to apply these to play park provision.

> 1TB-SW-LM*: 'many children can use it or access it.... I would tend to jumble them up together rather than accessible just meaning that you can get to it'*

> 2LG-SW-DW*: 'accessibility; people don't seem to get beyond the gate* [in their planning]. *As long as the child can get in through the gate 'tick that box off'.* [usability*] As I say why would a child in a wheelchair want to come and sit and watch other children having fun?*'

and

> *'so many play parks accessibility simply means you can get the wheelchair through the gate'*

> 3TT-E-KW*: 'accessibility, that's just being able to get in somewhere'*

and

> *'it's* [choice of equipment] *so it can be used by people, if they can use it as its intended to be used*'

4A-EM-DH agreed accessibility and usability extended beyond enabling access to a facility; '*accessibility is getting to the* [play park] *but usability is being able to use, have the ability to use'* working to '*make sure that at least some of the equipment was accessible for less-able children'.* Current focus at this site is on the installation of a pathway, 4A-EM-PW advising '*we have to have an access path for less-able children, mothers with buggies and grandparents in mobility scooters who would like to see their children play*'.

CSS3 and 6 are located within the same town, the project at CSS3 completed prior to

initiation of the scheme for CSS6. This led to consideration by those leading CSS6 of the need to provide accessible equipment as this need was met elsewhere. At CSS2 the provision of a fully accessible play park had a similar impact on decision-making in the wider area. 2LG-SW-DW advising in her opinion; rather than emulating the success of their project, '*I think that the city council's view is this can cater for all the disabled children … and beyond, and therefore none of their play parks need to*'. For CSS6 a decision was made to include alternative accessible items, rather than direct replication of equipment at CSS3. This approach in part due to a group member's changing personal circumstance, and through discussion with representatives from CSS3, learning from their experience.

8DT-EM-BF advised she considered usability and accessibility to be linked as, if a play park and its equipment is *'very usable*, [it's] *easy enough to get there to use it, because it is accessible, the two are together*'. This need to consider the needs of disabled children led CSS8 to arrange a visit to a local special school to look at their provision and discuss options to support for those with '*both physical and cognitive issues*' as '*we didn't want to segregate the children with disabilities; whatever the disability may be.'* (8DT-EM-BF). With positions as paid employees with a responsibility for play parks it is not unreasonable to expect 5YM-N-PH and 7MN-EM-BR to have an extensive understanding of the terms *usability* and *accessibility,* and of obligations under the Equality Act (2010). 5YM-N-PH advised usability was considered and they '*made a conscious effort and wrote that into our play policy'.* Here there is a requirement for both the environment and equipment to be accessible. This ensuring provision of equipment *'somebody in a wheelchair can get on, so the equipment has been designed in such a way to be accessible. But if there is a step to get on to the ramp it's defeating the object'* (5YM-N-PH). The practicalities of managing a portfolio of 60 play parks meaning a pragmatic approach was required:

> 5YM-N-PH: *'we've got play areas that are totally inaccessible, a play area in the middle of a field, hard to cross 200m of grass to get there. I think unless I can invest massively in miles of footpaths to get to that site then there's no point in me trying to put in a disabled access roundabout.'*

Taking an overview of all play parks in her area 5YM-N-PH utilised Inclusive Play's online tool, PiPA, (http://www.inclusiveplay.com/) to survey play parks within her remit, describing this as '*a useful exercise… in training my mind… coming at it now from a different angle; really looking'* (5YM-N-PH). For CSS7, 7MN-EM-BR advised she was unaware of the term 'usability'. Considering her approach to provision she advised, '*I suppose, because I think inclusively…it's inclusive play but it's going, taking it that one step beyond the word access*'. Whilst not having a full programme of play park reviews in place (7MN-EM-BR) had completed an access review at another location, this exercise supported by a wheelchair user, describing this as '*quite interesting, quite fun*'. She advised this exercise had resulted in her now ensuring a '*site is accessible, at least before you get into the play area'* (7MN-EM-BR).

The overall approach taken by this council was summarised as:

> 7MN-EM-BR *'we tend to look at the access point to a play area because as it states we are taking reasonable steps …in the ideal world it would be better if there was access to each piece of equipment but again, it all boils down to money'.*

Wider implications of play park provision

The levels of knowledge and understanding of those responsible for play parks on wider aspects relating to play parks and identified in the literature review such as health and socialisation were limited.

Health

The play park as an outdoor location for active play provides health benefits. Concern over children's sedentary lifestyles was raised as they:

> 4A-EM-DH*: 'don't have the experience of the great outdoors, we are now getting obese children because they are spending all their time sat in front of technology'.*

Supporting the fundraising for CSS6 Nick Bowles MP, then Minister of State for Skills and Enterprise advised *'encouraging children to play outside is important for the future health and happiness of the nation'.* (Bourne2Play, 2015) an opinion echoing the statement made announcing an earlier development at CSS7:

> *'Play is essential for children to develop properly. It is also recognised that children playing contributes to them achieving and sustaining a healthy weight and lifestyle from the earliest stages'.* (Hayman, 2009)

This wider benefit of play park provision was not acknowledged as being an aim at any of the play park sites, rather implied (as above by 4A-EM-DH), or in response to the interviewers' questions

> 7MN-EM-BR*: 'I suppose you could always look at that, as if a child is running about* [in a play park] *they are getting their exercise that way'.*

Negative impact on health linked to play in play parks was only considered by participants in relation to risk of injury and contact with animal faeces. Concerns were linked to play within the boundary of the play park by all except 8PR-EM-JG who raised concerns over inadequate fencing between the play park and the car park. Health concerns linked to aspects such as air pollution and allergy, such as asthma, were not raised by any participants although CSS2 and 7 are adjacent to roads with a high volume of traffic (Appendix E4) and CSS1, 4, and 5 adjacent to crops or gardens likely to have high pollen counts.

Socialisation

All participants considered play parks as a place for children, parents and carers to meet and socialise. As outlined in previous sections seating was viewed as an opportunity to support this but equipment selection generally supported linear, parallel or solitary play therefore limiting opportunities to socialise.

8.11.2 Risk management

Learning to assess risk and to attempt challenges are key skills which can be tested during activities in play parks. The equipment and environment are required to balance these to ensure safety as children attempt new activities. The design and selection of equipment should provide the experience, or appearance, of risk-taking. Otherwise children will seek these thrills elsewhere, potentially in environments where risk and hazard cannot be managed. Health and safety were considered key considerations at all case study sites, those with direct responsibility undertaking appropriate courses and inspections, or

commissioning these as required. Volunteer groups; fundraising to replace or improve facilities, are not subject to these requirements but through discussions and negotiations considered hazards they were willing to include within their designs, adjusting these accordingly.

> 1B-SW-MP: [discussing trampolines] *'to be honest we had heard too many scare stories and decided, if this was a staffed site where things were supervised, then maybe'*
>
> 6PG-E-GB: [discussing a hexagonal multi-swing unit] *'We did look at that as its social, but you need a huge amount of space for it, and we were worried if a toddler runs through the middle'.*

Both these items were installed at other case study sites (Figures 8.58 & 8.59) without those responsible voicing concerns over safe use.

Figure 8.58
Ground level trampoline CSS2

Figure 8.59
Hexagonal swing unit CSS4

Overall attitudes concerning the choice of equipment are summarised by 3TT-E-KW, who advised '*the standards, they* [equipment manufacturers] *have to meet, you have to trust they know what is safe'.* This trust demonstrated at CSS8 who included a nest swing following concerns over the safety of this type of equipment after press reports of a life-changing injury were reported, (Devlin 2016). Firstly, removing and then re-instating this equipment in their scheme. On taking advice from providers, 8DT-EM-BF advised '*We looked at everything, and we took advice on pieces of equipment from people selling it, you need a certain amount of space around them as well'.* The experience gained by 7MN-EM-BR through responsibility for several play parks led her to suggest risk management '*doesn't stop people hurting themselves, you know…, accidents where children have fallen on the safety surface; they injured themselves'* (7MN-EM-BR).

Boundaries and entrances

Minimising risks was not solely linked to play equipment and safety surfacing. Concerns over children exiting play parks unsupervised by parents were recognised by all participants. Responding to these concerns gates and fences were installed at case study sites, except CSS8 which has 'step over' low level fencing and grassed mounds (Figure 8.60) forming the boundary of the park, gaps within these providing entrances to the area. This a concern for 8DT-EM-BF who '*really plugged to have the metal fencing going right the way through, down the side of the play park where that little fence is'.*

Figure 8.60
Low level boundary CSS8

Provision of fencing is approached differently across case study sites. In two sites fencing is used to segregate areas by age (CSS3 & 7). Two alternative approaches taken are fencing the boundary of the play park (CSS2, 5 & 6) and fencing around a wider area, encompassing a number of activities and facilities (CSS1 & 4). For CSS1 and 2 with their focus on providing a facility for users with disabilities fencing was considered important, ensuring children remained under supervision. 1TB-SW-LM advised the safe use of the site is emphasised to parents and carers with specific advice regarding securing the entrance gate to the car park and closing internal gates after every use. At CSS2 the height of the fencing and gate is set at two metres (Figure 8.61) '*to stop, particularly children on the autistic spectrum, from running off'* (2LG-SW-DW), this and the position of the gate latch are designed to ensure those without safety awareness remain supervised. Where gates are installed at other case study sites they are 3ft high self-close gates similar in design to Figure 8.62 at CSS7.

Figure 8.61 Entrance CSS2

Figure 8.62 Entrance CSS7

Some children require supervision during play, initially for younger children this is by parents remaining close by. As abilities increase the need to remain close reduces, and it is likely parents will monitor play whilst seated. Maintenance of sightlines across and around play parks requires consideration when installing equipment.

> 7MN-EM-BR*: 'spaced out, sight lines where they can see the children'*

> 8DT-EM-BF*: 'an area, … for the parents and having some tables there so they could watch their children'*

At CSS5 the original installation of a large play unit obscured some areas within the unit itself, and of the wider play park, the enclosed areas also providing seclusion for anti-social behaviours including rough sleeping and drug-taking:

> 5YM-N-PH: *'The previous one was very enclosed and although we had taken measures to take some of the enclosed sides off, it was still difficult, …difficult for parents who were sending their children up into the unknown'*

and

> *'one of the criticisms which we had was that the child was in the play area and another child had gone to the other side the parents couldn't see a child on the opposite side'*

Fire damage to the wooden unit (of a similar design to Figure 8.63) provided 5YM-N-PH with an opportunity to install an alternative design (Figure 8.64).

> 5YM-N-PH*: 'the new item is so much more open and is more visible we haven't had any issues since.'*

Figure 8.63
Original play unit design CSS5
(Source: Eibe, 2017)

Figure 8.64
Replacement unit CSS5

Dog fouling was raised as a concern with all sites displaying signs excluding dogs from the play environment (Figure 8.65). CSS4 established their new play park on an amenity space which '*had traditionally just been used as a dog exercise area*' (4A-EM-PW). Resolving the need to separate these two activities, a fenced dog walk area was created, 4A-EM-DH explaining '*they said fence the children in, we said it's a play area, fence the dogs out not the children in*' [participant's emphasis].

Figure 8.65 Signage CSS3

Play parks as open access sites cannot remove all risks associated with anti-social behaviour, these recognised and managed through regular inspections, and site monitoring via CCTV. Responsible adults were considered part of the equation by 1TB-SW-LM as '*it's down to them to make their own assessments*' regarding decisions around equipment use.

8.12 Barriers affecting play park development

The experience of leading the provision of play equipment within a community setting was not always a positive one with barriers identified by participants. They highlighted five areas linked to their play park site which they considered to be barriers to be overcome during the development phase: *costs, attitudes, negotiation, social issues* and *time*.

8.12.1 Costs

Not unexpectedly costs involved with creating and maintaining play parks were viewed as a barrier by participants. The impact of these evident on decision-making in relation to site design:

> *3TT-E-KW: 'it was the most amazing looking park, but it was never going to happen because it was too expensive'*
>
> *6PG-E-GB: 'But they are really quite expensive the ones that we liked… we kind of set ourselves a budget, the most we'd really like to spend'*
>
> 8DT-EM-BF: *'It depends on money, I think it would vary to what equipment we end [up] with'*

However, the restriction was considered something which had to be worked with rather than against. A pragmatic approach adopted, rather than considering costs as a barrier preventing play park development, with participants identifying how they addressed this issue:

> 3TT-E-KW: *'we also had local groups and helpers to help with the groundworks to try and cut some costs and make it a community thing'*
>
> *4A-EM-DH: 'Unfortunately we have missed out for funding for the path, so will be looking for further grants'*

Case study sites CSS3 and 6 identified a barrier not experienced at other case study sites. 3TT-E-KW advised of the potential for fundraisers being personally responsible for any tax liabilities linked to the development, this because site ownership lies with the local council. With this cost projected in the region of £12,000, plans were altered limiting the scope of the development and choice of design. Tax liability was also an issue at CSS6 although this was identified late in the process with VAT due on the purchase of equipment, this met through the monies raised and preventing the purchase of additional seating and tables.

8.12.2 Attitudes

Difficulties faced due to financial restraints were addressed in a pragmatic manner, but participants from four case study sites highlighted how expectations or attitudes had been a barrier they had fought against and, for some still experiencing. Participants at

CSS4 considered attitudinal barriers to be gender-related and, due to the small size of the local population, personally directed at group members.

> 4A-EM-DH: *'in a group capacity we have been through a lot of personal trauma over this.'*

With a participant at CSS2 considering attitudinal barriers were mainly from professionals working in the area of play park provision.

> 2LG-SW-DW: *'I was really castigated by the rep from ***, and indeed all kinds of experts, who said to me you don't know what you are doing'.*

Participant concerns the proposed play park lacked full endorsement by the Parish Council at CSS4 were indicated through 4A-EM-DL's comment '*they grudgingly gave their permission for us to proceed*' [researcher emphasis added]. This attitude continuing with recent proposals, including a cycle path and pathway with funding in place, declined.

Where participants were representatives of a council negative attitudes or comments were acknowledged, but as these were directed through the parent organisation's feedback structure they appeared to have less personal impact for participants.

> 5YM-N-PH: *'if somebody comes at us, starts raising complaints on Twitter, yes, but we can deal with it'.*

The participants from case study sites with a focus on ensuring access for those with disabilities identified negative attitudes towards individuals from this population, and towards their efforts to ensure accessibility. In each case a low level of tolerance towards those perceived as 'different' was articulated; noticeably towards those with behaviours outside of the norm such as those with Autism or similar conditions

> 1TB-SW-LM*: 'behaviour not being tolerated or understood in other settings, they couldn't take their child to their local playground.'*

> 3TT-E-KW: *'it's heart-breaking to watch her try and not able to do it and people laugh and walk away.'*

> 3TT-E-KW: *'If you've had a bad day, you can't face that [attitude towards you].'*

Overt criticism of proposals to develop accessible play parks was expressed. 2LG-SW-DW related how a representative from an equipment provider advised she was '*on a hiding to*

nothing'. 3TT-E-KW recalled feedback varied from a '*complete lack of interest*' to those '*who were very quick to complain and criticise*'. Where the lead was taken by a statutory body, participants did not experience the same type of comments regarding the creation of accessible provision, possibly as their 'formal' status led to expectations that an inclusive approach is part of their parent body's responsibility when providing public facilities.

CSS2 has been acknowledged as a leading example of an accessible play park, being rated in the top ten worldwide (Special-Education-Degree.net, n.d.). However, 2LG-SW-DW expressed surprise its success had not led to their approach being adopted for the provision of other play parks within the same city, rather:

> 2LG-SW-DW: *'they think that this is here, this is a package, we don't need to do it because all the disabled children can come here.'*

8.12.3 Negotiation

All participants reported negotiation and liaison with different agencies as a barrier they needed to overcome. Two participants (2LG-SW-DW and 3TT-E-KW) found initial reluctance to consider their proposals; both describing the need to persevere, making repeated requests to the relevant councils. For CSS1 the initial stages of the play park creation had been a

> 1TB-SW-LM: *'crusade, with strange battles along the way; battles with petty bureaucracy or doubters, or even concerned neighbours.'*

All participants related difficulties arising from the number of agencies involved in discussions and decision-making, viewing this a barrier to the progression of their proposals. Barriers included the need for repeated planning permission applications, these resulting from changes requested by different involved parties (CSS2, 5 & 6), liaison between landowners and local councils (CSS2, 4, & 6), and requirements to alter designs at short notice (CSS6). The lack of established pathways and procedures for the creation of play parks results in a level of frustration expressed by participants who had been unaware of the need to complete certain requests or actions. An example being CSS6 where the planned start date was significantly delayed as the need for archaeological investigations was only highlighted at the last minute.

8.12.4 Social issues

Whilst provision of a play park is a community facility which is generally welcomed it is not without issues arising from anti-social behaviour. This proved to be a barrier to initial proposals at two case study sites, local residents raising concerns over the location of new play parks believing this would introduce problem behaviour to their area (CCS4 & 8). At established sites some experienced ongoing issues with CCS2, 3,4,5 & 8 reporting vandalism and CCS3,5 & 8 fire damage. CCS2, located close to areas of social deprivation had experienced the highest number of issues with 2LG-SW-DW advising land gifted for the play park was disputed territory between two local gangs, and issues with '*the local teenagers, they used to come in here in droves and get up to severe mischief...orgies, drinking, wrecking, spoiling*'.

At CSS5 the enclosed design of the original play structure encouraged use by rough sleepers, a concern for parents unable to monitor children playing in the structure. This structure required replacement after fire damage, the new design selected as it was '*more open'* (5YM-N-PH) which has reduced instances of this behaviour. 5YM-N-PH also reported damage to swing sets, these used to train dogs for fighting, and anti-social behaviours; '*the usual, teenage drinking and some drug use'*. There was an acceptance across all the case study sites some damage was to be expected, such as graffiti or litter, but more extreme behaviours were '*far more of a set-back*' (3TT-E-KW). The response to the anti-social behaviours was each site had provided, or intending to provide, CCTV cameras.

8.12.5 Time

As highlighted in Section 6.4.2 there is a need to involve or consult with a number of organisations during the process of creating or re-furbishing a play park. This and fundraising is time-consuming affecting the length of time before equipment can be installed. Whilst not presuming their commitment would achieve a play park in a short timescale volunteers expressed surprise at how time-consuming the process was. 6PG-E-GB felt '*it's like a whole other job…I am completely absorbed by it*' and 2LG-SW-DW '*this was pretty much a full-time job for me for probably two years before we ever got a play park*'. Both participants at CCS4 commented the committee were *'all retired*', 4A-EM-PW relating how younger residents commented they did not '*have the time needed to*

dedicate to their committee'. This resulting in a facility for the youngest residents created '*by old wrinklies'* (4A-EM-DH). Although recognising the length of time taken to fund raise, hold consultations etc. was a barrier to the creation of the play park, CCS3 viewed this as an opportunity to revise and refine their plans, approaching delays with a positive attitude:

> 3TT-E-KW: '*If we are going to do it, we are going to do it well, so we spent probably about a year and a half, nearly two years working on it'.*

Although each of the case study sites had experienced delays this had not prevented planned provision from being implemented, but participants considered the time taken to achieve their goals had required determination and character traits including '*tenacity*' (5YM-N-PH), '*doggedness*' (4A-EM-DH'), and '*perseverance*' (6PG-E-GB) whilst 2LG-SW-DW stated in order to achieve at times '*you have to be (a) diva*'.

8.13 Design

The type and location of items of equipment, selection of seating and landscaping are choices which providers take when allocating funds to different areas of provision. Each of the case study site participants had a vision they wanted to achieve:

> 2LG-SW-DW: *'we've tipped that power balance, this is specifically for people with disabilities and if you haven't … you are very welcome to come but you are the outsider. That is something that is fairly unique … this is a community resource where the power balance is completely stood on its head'*
>
> 3TT-E-KW: *'a play space where children of all ages and all abilities can come together in an inviting and interesting space, not only to play together but to learn about difference and create harmony and integration'.*
>
> 4A-EM-PW: *'Something for all the community …but we wanted a mixture, some bright colours…we were also looking at longevity for the materials used'*
>
> 5YM-N-PH: *'we did set out … to create quite a natural play area and wanted it to appear as green grass as much under the equipment'.*

6PG-E-GB: *'We want people to travel from the villages, a destination park is what we want.'*

Design decision-making

These visions not only influenced methods of consultation but also design choices. Decision-making at case study sites was approached differently depending on the scope of the project. CSS1 considered the site as evolving as requests were made and considered:

1TB-SW-LM: *'one or two parents who have been involved, I suppose to fight their particular corner, but also to bring their own expertise and knowledge about just what would work or be needed.'*

and

'who has got the most energy and enthusiasm for an idea, sometimes it will be delegating, and for somebody to be sourcing it in their own particular way.'

A similar approach was adopted at CSS7, with additional items added to an existing site, and where the selection process considered requests, but the final decision was made by an individual.

7MN-EM-BR: *'Some of the ideas they would come up with, I know immediately if that would work in that particular play area, because of the usage of the play area'*

The choice of additional items of equipment to add to CSS3 was approached differently, here the lead was taken by two parents of disabled children, decisions based on providing an accessible play area. Initially the intention was to complete a full re-design of the site, but later adjusted (due to limited funding) to the installation of additional items complementing the existing layout. Here items were selected to provide accessible equipment with the lived experience of the two parents guiding choice *'as we know how difficult it can be to find places to play'* (3TT-E-KW).

Where projects involved complete re-design of a site, the decision-making structure is more complex. Each case study site had a key individual, or core group, interpreting feedback from consultations; this then presented to the body responsible for the play park. For CSS6 this required presentation to the funding body (District Council) and the

landowners (Charitable Trust). Where there was a difference of opinion between the key individual or group, and responsible body some conflict arose as this did not always reflect the original 'vision':

> 4A-EM-DH: *'We have the money for it, but they won't agree, we don't know why as it was in the original plan;* [we are] *so angry and disappointed'*

> 2LG-SW-DW: *'the person who then headed up the play park equipment things, he saw me as a threat and he was uncooperative and as difficult as it could be, it was a battle to get what we wanted'*

Where decision-making lies outside of the organising group the process was not always through formal approval procedures, such as by a council or sub-committee. The final choice of design at CSS5 being made by an individual Councillor with the portfolio for play provision. A choice of design schemes was presented, the final decision not reflecting the preferred option of the officer responsible for managing play parks:

> 5YM-N-PH: *'I have reservations about having wood … it doesn't last as long and with a play area which gets so much use I was concerned that in five, ten years' time we'd be doing the same refurbish. It has been higher maintenance than if we had gone with a metal one.'*

Feedback

The comments from play park users assists in the decisions made in regard to planned changes. All case study sites advised they welcomed *feedback,* that is, comments following the completion of a play park project with observations on the effectiveness of the provision; some groups actively seeking the opinions of their local community. The feedback methods which were utilised varied, reflecting the age of participants involved at each site. Younger participants, those up to the age of 50 (CSS 3,6,7 & 8), referred to the active use of social media such as Facebook and Twitter to receive feedback. For CSS6 and 8 participants, who are local council officers, advised feedback would be directed via general council social media accounts, as opposed to specific accounts for each play park. This because the number of play parks within their remit (30+) would require an unmanageable number of accounts. Participants aged 50 and above advised they were aware of options to use social media but stated their preference for alternative methods:

4A-EM-PW: '*I am out and about, I talk to people, they see me around'*
8DT-EM-BF: *'well, they email the parish council to tell us'*

Of the eight case study sites only one (CSS1) actively sought feedback, this through an annual questionnaire, however all sites had information boards stating who was responsible for the play park site enabling users to identify which organisation to respond to.

Feedback is not only available via direct contact with an organisation or group. Online forums such as Mumsnet.com, and websites including TripAdvisor provide feedback and ratings posted by registered users. Interview participants had not utilised these to monitor comments from users prior to meeting with this researcher, but CSS2 and 5 indicated they would monitor comments as these were useful sources of feedback they had not previously considered.

8.13.1 Design themes

Where a specific design concept or theme was identified this provided a framework supporting choice of equipment by participants. Case study sites identified accessibility and inclusion, natural settings and themed play equipment as supporting their choices. The decision at CSS6 to aspire to be a destination park also influencing choice.

Accessibility and inclusion as a design theme

As the previous section illustrates it is possible to focus on promotion of accessibility and inclusion for users. Three case study sites identified this as a key theme, their vision one to provide accessible play for those with disabilities. This aim led equipment choice and design at these sites. CSS1 adopted an inclusive approach (in conjunction with a focus on nature) where provision is '*evolving over time*' and '*encouraging mobility and independence*' (1TB-SW-LM). This inclusive approach recognising not all children engage in active, physical play, providing

> 1TB-SW-LM: *'lots of difference spaces…children can find their own particular favourite, sometimes there are children who need to get away from others and find a bit of peace, or just to find their own space to play'.*

Supporting users with communication or comprehension difficulties, or those requiring support when planning activities is provided via a site map enabling children to indicate preferences, and to lead play choices.

In contrast CSS2 created a new site to provide '*specifically for people with disabilities*', (2LG-SW-DW), this aspect of the design specified from the outset. This approach is applied across all areas of site use, from placement and choice of fixed play equipment, information boards sited at the entrance gate (Figure 8.66) and displays adjacent to items of play equipment with photos, widgets (line drawings), Braille and the name of each item (Figure 8.67). This information is also found on the site's website and the widgets are free to download.

Figure 8.66

Information board (park entrance)

Figure 8.67 Information post (equipment)

The initial aim for CSS3 was similar to that of CSS2; creation of a new fully accessible play park, however altered circumstances required revision of this. The final scheme added to an existing site incorporating '*play equipment that children with disabilities could access; and enjoy playing alongside their peers*' (3TT-E-KH). The need for this alteration considered '*disappointing*' (3TT-E-KW), but the completed playpark described as:

> *3TT-E-KW: 'a triumph with as wide a range of equipment as the budget could allow.'*

The resulting installation provided a wider range of more accessible fixed play equipment, but without altering aspects such as access to, and within the play park area.

Nature / natural play as a design theme

It was considered natural elements enhanced locations; part of the '*appeal*' with '*green spaces*' and '*woodland*' identified as essential elements.

> 1TB-SW-LM: *'particularly with the trees and the woods – they are a little bit bare at the moment but that is part of its appeal'*

and

> *'It* [wildlife pond] *gives, on the whole, a different meaning for the kids'*
>
> 2LG-SW-DW: *'It's a green space, relaxing with areas of grass'*
>
> 7MN-EM-COL: *'*[they] *play amongst the natural woodland setting'*

All case study sites are set within, or adjacent to, green areas including fields, amenity spaces, public gardens or parks. All participants considered the need to include natural elements however prominence of these within schemes varied. Grass featured as a surface finish within all, or part, of each site, and in all instances maintained through regular mowing unless designated for wildflowers. Table 8.17 lists the natural elements included in case study sites.

Case study site	**Main surface finish grass**	**Mature trees / shrubs** (within)	**Mature trees / shrubs** (adjacent)	**Wildlife planting / unmown areas**	**Wildlife pond**	**Water** (play)	**Sand** (play)
1	✓	✓	✓	✓	✓	✓	✓
2	✓	✓	✓				✓
3	✓						
4	✓		✓	✓			
5		✓	✓			✓	
6	✓		✓				✓
7	✓	✓	✓	✓			
8	✓		✓				

Table 8.17 Natural elements found in case study sites

CSS7 is divided, a fenced area containing equipment designed for younger children, and a second extensive green space with open areas, shrubberies and woodland. Here larger items of fixed play equipment are spread throughout these different settings. Natural elements are utilised within the woodland area; wooden equipment and boulders selected for a 'trim trail' set within the trees and shrubs (Figure 8.68) which continued into the wider green area.

Figure 8.68 Trim trail CSS7

This natural area contrasts with CSS5, situated within a 17-acre park comprising of woodland, formal gardens, pitch and putt course, skate park, and tennis courts; the play park adjacent to the garden area and sports amenities. Fixed play equipment is placed around mature trees, the landscape designed '*to create quite a natural play area*' (5YM-N-PH). This aim is diminished by the installation of artificial turf (Figure 8.69) '*due to* [wet] *ground conditions*' caused by a '*number of underground springs in the area*' (5YM-N-PH). This provides the impression of a 'green' area, however children's opportunities for contact with natural elements have been reduced.

Figure 8.69 Artificial turf CSS5

Additional planting within case study sites was identified as a method of increasing natural elements. Saplings planted at CSS4 to provide '*interest, and play in the future, as well as shade*' (4A-EM-DW), and both CSS2 and 4 planted areas with bulbs or wildflowers to provide interest at different times of the year:

> 2LG-SW-DW: *'with the tree and the bulbs they can see how things change with seasons'*

and

> 4A-EM-DH: *'we want to encourage nature with hedges, trees and planting as its good for the kids to see and enjoy.'*

For CSS3 their original design had included:

> 3TT-E-KW: *'a sensory area, nice plants, all had smells, to really develop the area, the park, the whole of the surroundings'.*

However, the reduced scheme could not support this, therefore this play park does not contain natural elements other than grass.

CSS1, located in a rural landscape sought to ensure their play park reflected

> 1TB-SW-LM: *'the nature of what we know for here, and that's because this is a rural, semi-rural area'.*

To achieve this, they encouraged wildlife through planting and the inclusion of a wildlife pond which can be viewed from an accessible hide. The creation of willow structures and tunnels offering opportunities to increase contact with natural elements.

Selection of equipment can complement natural elements; wooden play items selected by CSS5 '*reflected the area*' (5YM-N-PH), and at CSS7 the trim trail '*needed to fit in*' (7MN-EM-BR) dictating the use of both wood and boulders.

Not all considered inclusion of natural elements to be of value. 2LG-SW-DW advised:

> *'I am a little bit out of touch with current thinking, the emphasis on natural play …. Boulders suddenly appear and dead tree trunks and that was it, that was natural play, and I baulked at that'.*

and

> *'it's a dangerous thing in many ways, because when it is wet the wood can get quite slippery, but anyway what does a dead trunk do?'*.

Themed / linked play structures

Whilst individual items of equipment may be recognisable as having a specific design such as a castle, boat or plane (Figures 8.70 & 8.71) this does not, within the context of this investigation, equate to the use of a design theme.

Figures 8.70 & 8.71 Plane installation CSS5

There were two approaches to the inclusion of themes within the case study sites, one where the entire site is created around a theme (CSS6) and the second where some elements within a site are themed (CSS7).

The castle previously on the area around CSS6 provided an overall design scheme including a 'castle' modular unit, castellated structures and bridges over a 'moat' path (Figures 8.72 & 8.73). This provides a cohesive appearance across the site supplemented by information boards with details of the site's history.

Figure 8.72

Castellated entrance to sand pit CSS6

Figure 8.73

Bridge over 'moat' pathway CSS6

Selecting additional items of equipment for CSS7, 7MN-EM-BR adopted a railway theme installing a train, station, platform and signal pole placing these close together (Figures

8.74 & 8.75). These unrelated to the other items of fixed play equipment in this area of the play park.

Figures 8.74 & 8.75

Railway themed play CSS7

'Destination' parks

The location of CSS5 at the edge of large public gardens, adjacent to residential areas, within a popular tourist district, results in a high number of national and international visitors. The wider garden area achieving visitor numbers exceeding 3,000,000 in 2014 (Cosgrove, 2015), with themed events increasing visitor numbers. 5YM-N-PH described CSS5 as '*our major destination play area*', this designation supporting full re-development in 2012, meeting needs of local families as well as a play park appropriate for the expected number of visitors.

The description 'destination park' was also used by CSS6 whose intention was to create *'a local destination, we want people to travel from the villages'* (6PG-E-GB), this interpretation of 'destination' differing in scale from CSS5. The choice of design at CSS6 (Figure 8.76) reflected this aim, using the design concept of a castle across the site and equipment choice reflecting the site's location within the grounds of '*a medieval motte and double bailey castle, with surviving remains of the enclosed mound and inner and outer moats'* (Gatehouse Gazetteer, 2017). They aimed for:

> 6PG-E-GB*: 'something that makes you go wow! That you look at and you want to play on that, not just 'we'll put a bit of equipment here and a bit of equipment there'. We wanted a park that worked together, flowed, that had a massive amount of play… that people drove to'.*

Figure 8.76 Castle themed development CSS6

8.132 User Groups

Age range specific provision is not the only specification criteria utilised by participants. When deciding what their play park vision is they consider the population it is being created for, or their identified target user group. In part this is influenced by patterns of use, frequency of use affected by factors including the presence of other facilities either co-located or nearby (section 8.5), and size of the local population. It is not unreasonable for village play parks to have lower daily use than ones in urban residential areas. Ongoing site use was not formally recorded at case study sites although there was awareness of patterns of use. CSS1 monitored use via their email list advising '*for this year* [2014] *we think it is around seventy families*' (1TB-SW-LM). 2LG-SW-DW who visited the site frequently informally monitoring use advised '*it* [CSS2] *is always in use, …sometimes they come in droves'.* 8DT-EM-BF advised the proximity to a 'park and stride' car park ensures daily use during term times at CSS8, and 5YM-N-PH that the location for CSS5, co-located with formal gardens which are a tourist destination, serving both visitors and the local population ensures high levels of use.

Target user group - Inclusive provision

All case study site participants advised they had considered the needs of users with disabilities, however three sites (CSS1,2, & 3) aim to promote accessible play for children with disabilities. CSS1 recognises those with challenging behaviours, or on the Autistic Spectrum, can struggle to use local facilities.

> *'They* [parents] *quite often talk about the behaviour not being tolerated or understood in other settings so they couldn't take*

their child to their local playground for that reason. The other children wouldn't understand their particular child doesn't 'get' the conventions or rules'. (1TB-SW-LM)

Alongside standard items of fixed play equipment, at CSS1 consideration has been of the need to support those with a preference for solitary play, or time-out to manage sensory overload. This achieved through the provision of enclosed quiet spaces (Figures 8.77 & 8.78).

Figure 8.77 Playhouse

Figure 8.78

Play structure, willow shelter and secluded hut

CSS2's approach differs with a greater focus on accessibility for users with physical disabilities:

'an inclusive playground where the equipment is almost all wheelchair accessible. The equipment is designed to encourage co-operative play and is large enough to be used by older disabled children who may need more space for wheelchairs and sometimes helpers'. (The play park, 2018)

Although those with other needs are considered through provisions such as 2m high fencing and an external gate latch (Figure 8.79) minimising risks for those without safety awareness when unsupervised, or at risk of absconding from carers:

2LG-SW-DW*: 'So that why we have the catches on the outside of the gate. That's why the fence is as high as it is.'*

Figure 8.79 Gate catch CSS2

An additional provision within CSS2 supports those with visual and cognitive impairments by the inclusion of braille, pictograms and images for information boards and adjacent to equipment (Figures 8.80 & 8.81), and the presence of play options providing accessible sensory activities (Figures 8.84 & 8.85)

Figure 8.80
Wheelchair swing instructions

Figure 8.81
Equipment information post

Figure 8.82 Auditory play

Figure 8.83 Accessible sandpit

Identifying a lack of accessible outdoor play in her local area led 3TT-E-KW to work towards meeting this need. As noted previously compromise was required to achieve this aim. Additional items added to the existing provision at CSS3 increasing accessible play opportunities there.

Specific provision for those with additional needs affects the pattern of use at play parks. CSS1, is used by local children and groups supporting those with additional needs but also by families travelling from further afield.

> 1TB-SW-LM*: 'families come a long way, there are families that come from Swindon which will take them an hour to get here, and others who come from the other side of Bristol and the other side of Gloucester'*

The location of CSS2 within a city provides a larger population able to access this play park, 2LG-SW-DW advising it was well used by local children of all abilities. It succeeds in its aim to provide accessible play for those with disabilities as families travel from across the city and it is utilised by the local special schools:

> 2LG-SW-DW*: 'We've got the local school Just across the bridge and we've got various special schools* [in the area] *and they … use it as a 'carrot' for cross country. For the children to be motivated, so they are promised if they do a bit of cross-country then they can come to the play park. It's the same over the road with the ordinary primary school'.*

Word of mouth and publicity, including CSS2's inclusion in a list of the worlds' top 30 accessible play parks (Special Education Degree.net), increased user numbers with wider awareness of the facility and visitors travelling from outside of the city, this information gathered through surveys of park use:

> 2LG-SW-DW*: 'I have sat in the play park … monitoring who comes into the play park, monitoring the ages, the genders, the disabilities etc., and because I have a disabled child of my own I know a lot of the organisations; I have been able to talk to the carers'.*

For CSS3 articles in local disability-specific publications, and its location less than 1000m from a special school suggest the accessible provision would increase use by those with disabilities, however site use is not monitored. Each of the other case study sites considered the needs of users with disabilities, with individual items selected to enhance this.

> 4A-EM-DH*: 'we have done this for the future of the village, that we would make sure that at least some of the equipment was accessible for less able children'*

6PG-E-GB: '[a playpark] *that was inclusive of all abilities'*

7MN-EM-BR: *'I am always looking for something which is accessible. Whether that be a double slide, a double width slide; the tactile boards are brilliant because they are inclusive'*

8DT-EM-BF: '[we] *have to move some of the stuff to go in, different places to make it really look attractive, and accessible'*

These aims most commonly met through the inclusion of a nest swing (CSS4, 5, 6 & 8), rocking (CSS5, 6 & 7), or rotational play equipment (CSS4, 5, 6, & 8), examples of these illustrated in Figures 8.84 to 8.88.

Figure 8.84 Nest swing

Figure 8.85 Step on seesaw

Figure 8.65 Sit on spring rocker

Figure 8.87 Rotating disc

Figure 8.88 Accessible roundabout

Recognising that accessibility is not limited to equipment provision, pathways leading to items of equipment were installed at five sites (CSS1, 2, 5, 6 and 8), with this planned as future provision at CSS4. Direct access to all items of equipment is provided at CSS2; 2LG-

SW-DW considering this a key element in achieving a fully accessible play space. A decision she felt she had fought for after being '*castigated by play experts for putting in tarmac in as much as we have got'.* Identifying specific items of equipment as accessible provision CSS8 opted to provide paved links to the roundabout and picnic benches (Figure 8.89).

Figure 8.89 Pathways to roundabout and benches CSS8

Table 8.18 provides a summary of the aspects linked to accessibility and usability across case study sites.

CSS	1	2	3	4	5	6	7	8
Accessible / inclusive Information	●	●						
Open access								●
Secure gate / high fence to ensure safety	●	●						
Pathways linking equipment	●	●			●	●		●
Accessible seating / adjacent area for wheelchair	●	●			●	●		●
3+ graded equipment options	● (2)	● (2)	● (3)	● (2)	● (4)	● (3)	● (2)	● (5)
Supportive swing e.g. Nest swing	●	●	●	●	●	●		●
Step on see-saw		●			●	●		
Accessible roundabout	●	●	●		●			●
Specialist equipment e.g. wheelchair swing	●	●	●					
Wheelchair accessible activity board / sensory play	●	●			●	●	●	

Table 8.18 Aspects supporting accessibility / usability at case study sites

Play park user age range

There are differing approaches to age range specification for play provision at case study sites. Play parks are child specific provision and the equipment designed to meet the needs of children in different age-ranges, Wicksteed Leisure designating these Early Years / Junior / Youth to Adult. Proludic adopt a different approach providing a specific age-range for each individual item of equipment. This age-range approach adopted by all manufacturers as British and European standards require this. This is often reflected in play park layouts with designated areas or zones for younger children; some within the

main play park area and others physically separating the two play provisions. Ball and Sandseter (2016) highlight the move away from zoned play spaces as good practice which is supported in the advice in Design for Play (Shackell et al., 2008). The focus on reducing segregation by age in the built environment is developed further by Thang (2015) with the concept of intergenerational contact zones, an idea not adopted at case study sites included in this investigation. The approach adopted by each case study site is shown in Table 8.19. With only two sites having segregated play areas this does not reflect the findings of Arroyo-Johnson et al. (2016) whose review of play parks in St. Louis found 93% continued to segregate play by age range. As the case study sites are community facilities designed to support play across a wide age range it is appropriate segregation is not adopted but it is recognised that in other locations such as schools where children are grouped according to age segregation may be appropriate (Hendricks, 2001).

Case study site	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*
Segregated play			✓				✓	
Zoned play				✓	✓	✓		
Mixed provision	✓	✓						✓ *

* current arrangement: future development includes relocation of equipment into zones

Table 8.19 Segregated / zoned play by age across case study sites

The zoned design at CSS4 described as:

> 3D-EM-RFKB: *'Two play zones…, one for younger children with fun and challenging equipment, and a junior area for teenagers to socialise and engage in physical activity. A combination of traditional play equipment and multi-play structures were chosen to provide … a variety of play activities'.*

Segregation of play equipment with fenced boundaries indicates equipment is suitable for children within a specified age-range; where equipment is zoned or mixed there is less clarity. Information boards at play parks often include user age information, either providing details of a user age-range, or a maximum user age (Figures 8.90 & 8.92). Three

sites (CSS1,2, & 3) did not provide age restrictions on equipment use. CSS5 includes advice on appropriate use on some items of equipment (Figure 8.68). However, without formal supervision any age-based restriction cannot be enforced.

Figure 8.90

Maximum user age CSS7

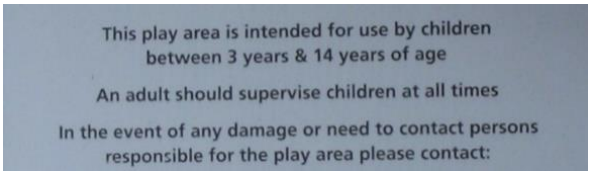


Figure 8.91

User age range CSS8

Figure 8.92

Equipment specific user guide

Children with disabilities may require parental or carer support beyond an age at which independent play is usually achieved, and also may enjoy, or seek, experiences most commonly found in play parks, CSS2 recognising this.

> 2LG-SW-DW*: 'older disabled children who may need more space for wheelchairs and sometimes helpers'.*

At CSS2 this led to the selection of equipment robust enough to support adult use enabling carers to access equipment alongside those requiring assistance, or for adults to enjoy active play.

> 2LG-SW-DW*: 'All of our equipment is actually large enough for adults, it will take the weight of an adult'.*

This need also considered at CSS5, the Borough Council's play policy written to reflect needs of children with disabilities:

> 5YM-N-PH: *'we were looking at children up to the age of 16 but then we were allowing for disabled children who are older than that, who would still use the play area, and we made a conscious effort and wrote that into our play policy'.*

Where consideration of the needs of less-able users, and inclusion of specialist accessible or inclusive play equipment occurs this does not ensure use by this population. The efforts of those responsible for CSS4 to canvas the opinions of all village residents and to provide accessible play options were disregarded by a parent of both able-bodied and disabled children, who considered the new development to be *'for kids who are active and able to get there on their own'* (4A-EM-CD) therefore phrasing her feedback responses accordingly. 2LG-SW-DW's evaluation of site use at CSS2 identified, although consultations with families with disabled children indicated a need for an accessible play park, the patterns of use were not as expected:

> 2LG-SW-DW*: 'one or two families do that* [visit as a family] *but the vast majority of families don't, …they get the carer to look after their disabled child. It's the carers who come in droves to this play park.* [Saying] *"What a brilliant resource, what would we do without it?" …The family take the siblings and go off, be normal'.*

8.14 Play in relation to play parks

The acceptance of play as the primary occupation for those using play parks was acknowledged by all participants. References to 'play' in the participant interviews were limited, however this may not fully reflect the importance given to play, rather resulting from an expectation it was too obvious to mention.

8.14.1 Play types

Providing a varied play experience was viewed as important by all participants. The range of play activities at case study sites is summarised in Appendix E2. As an established play site, evolving over time, CSS1 reviewed provision through an annual questionnaire, recognising *'there wasn't enough for children who didn't have disabilities*' subsequently providing '*a football field, and put in some other types of play equipment*' (1TB-SW-LM) to increase play options. This approach is similar to that adopted at CSS3 and 7 where additional equipment installed was chosen to add diversity to existing provision therefore enhancing play. Here existing play options were informally evaluated to facilitate selection of new equipment.

The creation of a new play park (CSS2, 4, 5, 6 & 8) prompted consideration of play value. The lead for CSS2 combined creation of the play park with postgraduate study developing the design as part of her dissertation. This included investigating play options alongside research into the play needs of children with disabilities, all aspects including play value were given '*enormous care and thought*' (2LG-SW-DW). This participant had personal experience of play for children with disabilities bringing this to the design process. This is echoed at CSS3 where the two project instigators are parents of children with disabilities, the understanding of their children's play used to identify suitable items of fixed play equipment.

As council employees, participants at CSS5 and 7 have access to formal training opportunities, however training undertaken focused on safety aspects of provision such as courses offered by RoSPA (7MN-EM-BR). CSS4 and 5 sought to increase understanding by accessing available information through a local community resource (CSS4) and web resources (CSS5).

The need to create play opportunities across different activities and meeting the needs of children of differing ages and abilities within one site was acknowledged by CSS4. Using information from local resources, feedback from consultations, and support from their equipment provider they created:

> 4A-EM-RFKB*: 'Two play zones…, one for younger children with fun and challenging equipment, and a junior area for teenagers to socialise and engage in physical activity. A combination of traditional play equipment and multi-play structures were chosen to provide young visitors with a variety of play activities'.*

The redevelopment of an existing play park at CSS5 was led by an experienced council employee who utilised prior experience to evaluate both current provision and proposals submitted for tender. 5YM-N-PH advised the high value of the development required careful consideration demanding a

> 5YM-N-PH*: 'process of looking at what each company had offered, the amount of equipment the different play value elements of it, to make sure that a lot of, as much was covered as possible with this £180,000'*

The online resource created by Inclusive Play (www.inclusiveplay.com) was identified by 5YM-N-PH as a useful tool which would have identified areas in which play value could be enhanced, however this was not available during the case study site development. Imaginative play was identified by 6PG-E-GB as a key feature of their play park, linking this with the themed design and specific play structures. The play park site is historically linked to a castle providing an over-arching theme. Specific reference to this in the design of play structures (moat / bridge, castle, towers), and the inclusion of 'fossils' to excavate in the sandpit identified as opportunities for imaginative play. The decision to include this facet of play a direct consequence of previous provision lacking the '*opportunity to get involved with an imaginative game*' (6PG-E-GB).

No other case study participant identified this type of play as part of their provision but acknowledged structures and themed units were multi-functional in regard to play type. CSS1 included structures for differing purposes; enabling observation of the wildlife pond; wooden huts and willow structures (Figure 8.93) supporting solitary play for '*children who need to get away from others and find a bit of peace or just to find their own space to play*' (1TB-SW-LM), these also offering locations for imaginative play.

Figure 8.93 Willow play structure CSS1

Two other case study sites selected themed structures and features to enhance play; CSS7 a railway theme with train, signal and platform (Figure 8.94) and CSS5 a large open multi-unit with castle themed elements (Figure 8.95), and a 'crashed' plane (Figure 8.96).

Not all imaginative play was facilitated by large items of equipment with CSS7 promoting this play through the installation of activity boards (Figure 8.97).

Figure 8.94 Railway themed play CSS7

Figure 8.95 'Castle' modular unit CSS5

Figure 8.96 Plane CSS5

Figure 8.97

Activity board - imaginative play CSS7

Sedentary play activities featured within case study sites. Examples included auditory play (Figures 8.98 & 8.99); visual activities (Figures 8.100 & 8.101) and boards to stimulate cognitive play (Figures 8.102 to 8.104).

Figure 8.98

Figure 8.99

Auditory play

Figure 8.100 Mirror

Figure 8.101 Kaleidoscope

Figure 8.102 Addition board

Figure 8.103 Addition Board

Figure 8.104 'Pairs' game

These types of play activities were highlighted as a development area at three case study sites (CSS1,2 &6). It was intended for this type of activity to be supported at CSS3 and 8

but withdrawn due to budget limitations. 8PR-EM-JG advising action was on the advice of their architect, *'you take bits out, do you really need that? … so, we started with big items and then you can come down* [to smaller ones]' (8PR-EM-JG). A single site (CSS7) increased provision of sedentary play activities in response to requests from play park users, this in addition to new equipment for active play. All case study sites acknowledged initial play provision focused on items for active play, these either '*chosen through consultation*' (2LG-SW-DW) or through the experience of the responsible individual (7MN-EM-BR).

Play with natural elements

Natural elements within play parks were identified and divided into two types: activity specific provision (defined by participants as sand and water play) and grown (shrubs, trees and unmown areas of grass). Activity specific elements were identified at four case study sites, with access to mature planting / trees and unmown 'wildflower' areas included at five sites, a single site (CSS1) offering both play opportunities (Table 8.20). The inclusion of natural elements at CSS1 was considered essential due to its location:

> *'We have to go with what is in the nature of what we know for here…, a semi-rural area...the edge of the woods, we are surrounded by wildlife'*

and

> *'the trees and the woods …part of its appeal to people…a little hidden valley'* (1TB-SW-LM)

	Activity specific			Grown
Case study site	Sand	Water	Mature planting / trees	Unmown / wildflower areas
1	✓	✓	✓	✓
2	✓			
3				
4				✓
5		✓	✓	
6	✓			
7			✓	✓
8			✓	

Table 8.20 Inclusion of natural play elements

Here sand and water-play features were installed, with the water-play utilising a natural stream on site. The pond is viewed from a hide for safety; these combine with varied planting and unmown areas for a sense of '*peace' and 'gives, on the whole, a different meaning for the kids*' (1TB-SW-LM). Water-play was also included at CSS5 an area with '*many springs all the way under*' (5YM-N-PH). Rather than utilising these within the play park, water-play equipment is installed adjacent to a paddling pool providing interactive play between the two (Figure 8.156).

Figure 8.105 Water-play CSS5

The inclusion of sand at three sites provided an alternative '*interactive*' activity, one acknowledged as '*contentious*' by CSS6, but offering opportunities for younger children:

> 6PG-E-GB*: 'sand is a bit contentious with some people, but we put it into a bigger play area, we have got the pulleys and things, kind of aimed at the younger age group really. Allowing them to play and find fossils and things… interactive'*

CSS8 considered inclusion of sand play but reflected it would be too difficult to maintain '*with cats and foxes and things'* requiring '*frequent monitoring*'(8DT-EM-BF).

Whilst there is mature planting at four case study sites the approach taken differs. Two sites have plants within (Figure 8.106) or alongside the play park boundary (Figure 8.107) providing opportunities to play unrelated to the placement of equipment, CSS5 '*working around the trees and pathways*' (5YM-N-PH).

Figure 8.106 Mature planting within CSS5

Figure 8.107 Trees on CSS8 boundary

Figure 8.108

Play equipment adjacent to trees CSS1

CSS1 and 7 placed play equipment to encourage play which incorporates plants, trees and natural elements. CSS1 maintained open areas with equipment placed in grassed areas (Figure 8.108) and CSS7 created a trail through the wooded area (Figure 8.109), described as having:

> *'a lovely earthy feel … a challenging adventure natural trail in amongst the natural woody setting…agility trails intertwining through the existing trees [with a] balance of the natural environment and exciting and challenging play.'*
>
> (Wicksteed Leisure, 2016)

Figure 8.109
Woodland installation CSS7

Leaving unmown, 'wilder' areas and encouraging wildlife through other actions such as installing bird boxes, were employed, introducing interest through the presence of wildlife. These were not considered as play opportunities by participants, none of who identified play with natural elements such as leaves, twigs, stone and earth as play they expected within a play park setting.

Solitary, linear, parallel, social and co-operative play

The activity analysis completed as part of the site surveys highlighted that different items of equipment facilitated different levels of interaction between users. The five categories being solitary, linear, parallel, social and co-operative play. These summarised in Table 8.21.

- **Linear play**: Play activities where the only option into play singly following the child in front e.g. traditional design slide.
- **Solitary play**: Play activities which can only be completed individually e.g. a balance beam
- **Parallel play**: Play activities which are completed individually but alongside a child engaging in the same type of play e.g. swing sets with 2 or more swings.
- **Cooperative play**: Play activities requiring two or more children to interact to use the equipment e.g. see-saw.
- **Social play**: Play activities facilitating two or more children to interact when using the equipment or with sufficient space for more than one child to use the equipment at the same time e.g. play structures or net / nest / basket swing.

Table 8.21 Play type definitions for this investigation

(Developed by the researcher)

Equipment within play parks is, in most instances, provided to stimulate active play which can be undertaken individually (solitary or linear), alongside others (parallel or linear) or, with less frequency, promoting interaction with others (social or co-operative). The selection and placement of fixed play equipment does not always support socialisation as noted by 6PG-E-GB, who advised their original play park was one where

> 6PG-E-GB*: 'you take your child then you go around each piece of equipment and there's no opportunity to get involved with… somebody else that they're found'.*

This experience leading to the selection of new play equipment to create a play park with '*places they* [children] *can play together'* (6PG-E-GB). The ethos underlying the creation of CSS1; provision of play opportunities for those with additional needs in an environment '*without the stigma and ridicule sometimes experienced in mainstream play areas'* (Yip, 2016), endorsed the need for some to play individually, or to have limited interaction with others. This resulted in the inclusion of structures facilitating solitary play rather than promoting social or cooperative play. This does not exclude the social aspect of play as, although '*centred on the child with a disability the intention has always been that it includes everybody else that makes up their network'* (1TB-SW-LM).

This accepting and open ethos also underpinned the creation of CSS2. Here focus was on the needs of individuals with physical disabilities and of those with challenging behaviours. Here the intention was to create a play park where *'A disabled child and able siblings would be able to bring the whole family and have fun together'* (2LG-SW-DW). However, this aim had not been achieved as the park, although well used by children of all abilities, is more often used by formal (paid) carers supporting those with additional needs '*and that was something that we had not thought about, and I think it shocked me actually'* (2LG-SW-DW).

Provision of accessible equipment at CSS3 is also intended to foster interaction '*so that children of all varying ages and abilities could play together*' (3TT-E-KW).

The intention to encourage socialisation was not limited to case study sites supporting those with additional needs. CSS8 included a Tango swing unit where a parent or older child can sit facing a toddler as they swing (Figure 8.110), and CSS4 an area with inset sleepers designed for sitting as well as climbing on. 4A-EM-DH advising:

> *'That's what it's for, them to socialise, and the playgroup … they bring their children over here, and they sit and read stories, its lovely'*
> (4A-EM-DH)

Figure 8.110 Tango swing

Whilst not installed at CSS2, climbing frames with such as in Figure 8.111 installed at CSS7, were identified by 2LG-SW-CJ, a sales rep for the equipment provider at CSS2, as providing opportunities for older children to socialise, as although:

'[They are] supposed to be a climbing frame, I call it a hangout zone, you see girls sitting on these with their mobile phones listening to music, chatting, talking,' *(2LG-SW-CJ)*

Figure 8.111
Climbing frame with 'hangout zones' (CSS7)

Play is not limited to activities on fixed play equipment and can take place in and around other items such as the paths, benches and shelters. The inclusion of shelters encourages socialisation especially for older children, but also for those who may prefer more sedentary play such as digital gaming via a mobile device. App-based activities such as 'Pokémon Go!', promoting cooperation and interaction at different locations, encourage socialisation in many settings including play parks. Shelters provide a place to gather; open structures or youth shelters (Figure 8.112) offering an alternative to fixed play equipment.

Figure 8.112
Shelter offering a location for sedentary play

Challenge

Creating challenging play experiences within play parks provides this essential aspect of children's development within a managed environment. 4A-EM-DH advised following completion of a RoSPA course she considered challenging activities as essential, '*risk, you have got to give children that risk… because they haven't learnt* [risk management] *elsewhere'.* For 7MN-EM-BR inclusion of challenging elements assisted in encouraging the use of the play park; *'they might think 'What a boring play park', then they will go and play elsewhere in the trees'.* The design brief for CSS7 was intended to create '*a challenging adventure natural trail in amongst the natural woody setting'* (Wicksteed Leisure, 2016), the installation described by 7MN-EM-AA as '*exciting and challenging play*'. How challenge is created varies, CSS7 selecting an extensive trim trail with several different balance elements (Figures 8.113 to 8.115).

Figure 8.113

Figure 8.114

Figure 8.115

Trim trail CSS7

For CSS2 the introduction of complex balance elements to create challenge was not an option with their remit of creating a play park which '*meets the specific need of a particular group* [disabled users]' (2LG-SW-DW), who advised '*height, that is something not a lot of children* [achieve]… *but here* [they] *can very easily attain a high view*'. This created through the provision of a large unit with ramped access (Figure 8.116).

Figure 8.116 Ramped access to platform

Allowing children to experience a sense of height was enabled across all case study sites, through the inclusion of slides, multi-function modular units (Figure 8.117), climbing frames (Figure 8.118); all sites offering an age / size appropriate option for younger children (Figure 8.119).

Figure 8.117 Climbing frame CSS5

Figure 8.118 Climbing frame CSS7

Figure 8.119 Early years provision CSS5

In considering how the new play park at CSS6 should be laid out 6PG-E-GB advised the group had raised concerns over combining equipment for all ages. Following a review of different designs, they took an approach where '*the youngest can get on this bit* [of the modular unit] *but this is quite tricky, and if they are not of the ability to get across then it*

is self-limiting'. The need to provide challenging play for younger children at CSS6 including the choice of slide;

> 6PG-E-GB: *A bigger slide like at *** may also be enticing for the young ones as they could manage it, but it still feels exciting'.*

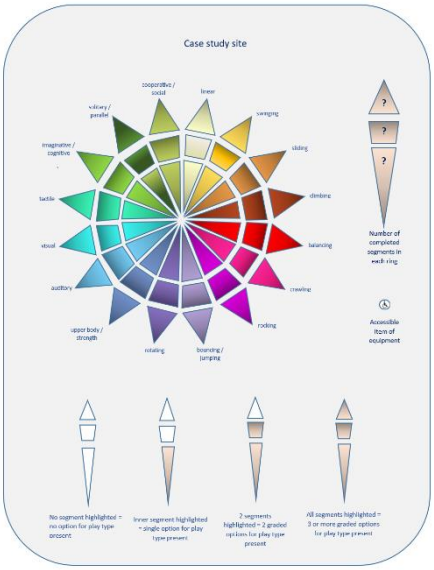
The overall design allowing '*children to find their own level of what they are comfortable with'* (6PG-E-GB).

8.14.2 Play value - Case study site evaluation

All participants advised choice of equipment at case study sites aimed to provide a good play experience. Information relating to play value was gathered at each case study site through completion of the Play Park Evaluation Tool (PPET) (Appendix B3). This tool identifies 16 aspects of play commonly found in play parks providing a range of play opportunities and experiences. The site evaluations considering if play options are available for users with differing levels of ability including mobility, balance and cognition. The information gathered for each site is represented in an infographic (Figure 8.120) with highlighted sections denoting the presence of a play type and a wheelchair symbol superimposed to identify accessible options.

Figure 8.120

Master copy of play value infographic



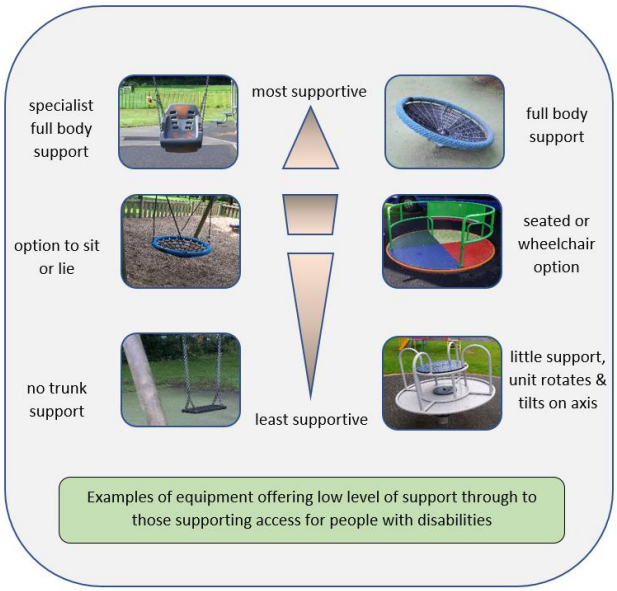


Figure 8.121

Examples of equipment offering different levels of support

A larger image of each figure is included in the appendices (Appendix H and I) for clarity.

Completion of the infographic, from inner segments to outer triangles, indicates different options to access each play type, in most instances presenting different levels of support. Examples are illustrated in Figure 8.121. (Chapter 5 outlines the development of the PPET and Appendix H the infographic created to illustrate play value at sites.)

Data collected at each case study site is summarised in play value infographics. Appendix E5 presents the infographics for all case study sites as an overview. Where opportunity presented, a comparison between previous and new provision was made. Single infographics are appended for the creation of new provision (CSS1 & 2), or where there was an inability to confirm prior equipment provision (CSS3 & 5). The remaining case study sites each having two play value infographics, examples from CSS8 shown in Figure 8.122.

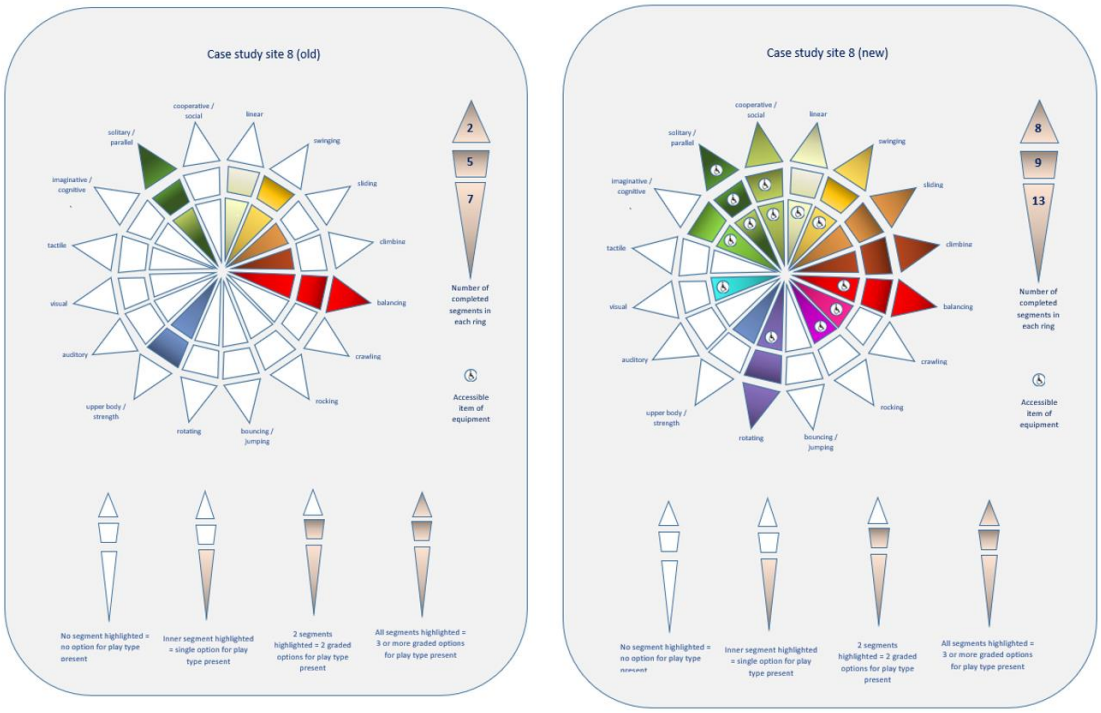


Figure 8.122 Play value infographics CSS8

Play value findings across all case study sites are illustrated in Figure 8.123. Tables illustrating the number of items of all types of play equipment and play value infographics illustrating provision at case study sites are provided within each case study site summary.

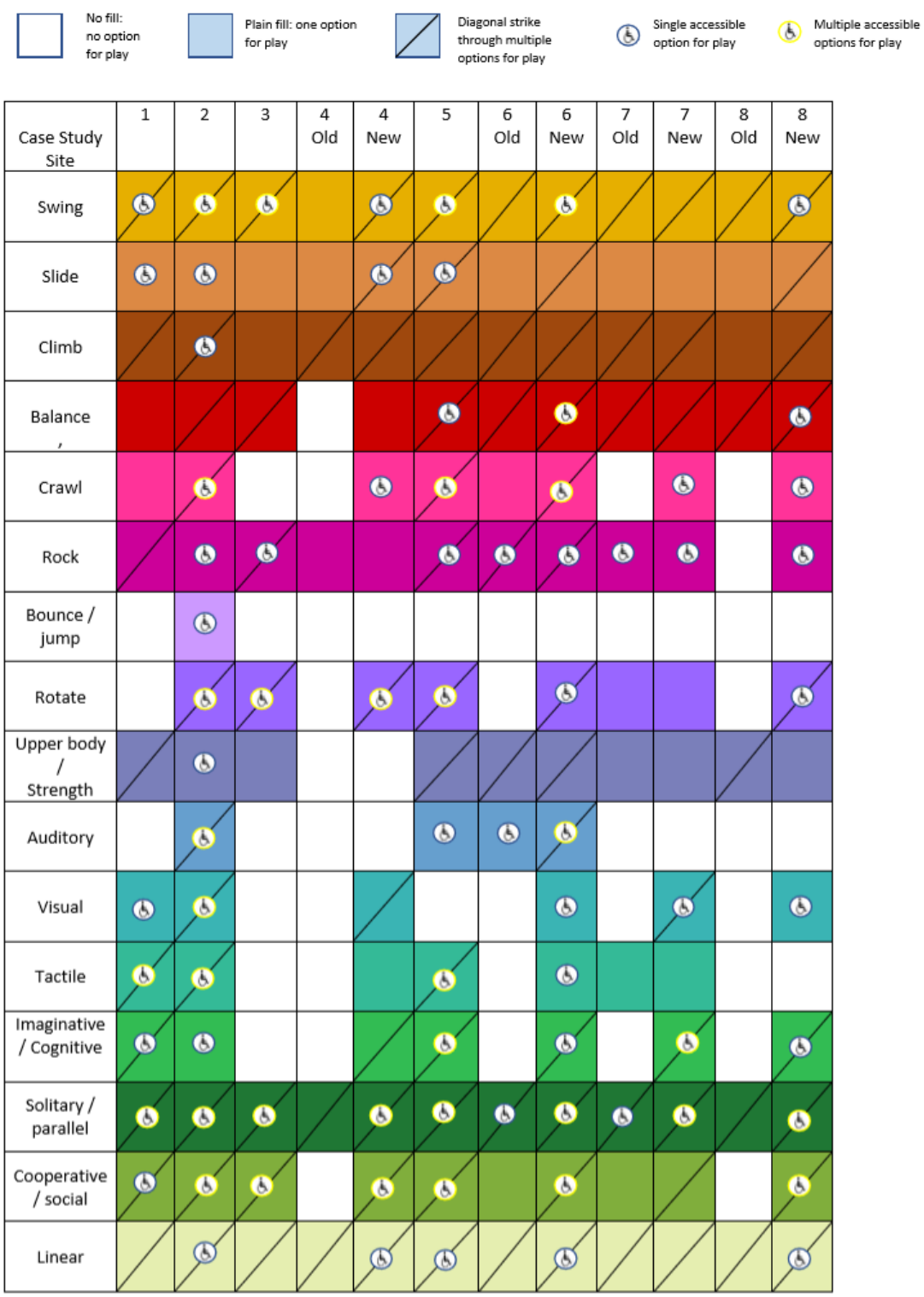


Figure 8.123 Summary of play value across all case study sites

The 16 play value elements listed in Figure 8.123 can be divided into three broad categories:

1. **Active / physical**: swinging, sliding, climbing, balancing, crawling, rocking, bouncing / jumping, rotation and upper body / strength activities. These activities requiring physical effort / ability to complete.
2. **Sedentary / passive**: auditory, visual, tactile and imaginative / cognitive activities. These activities require low levels of physical effort to complete.
3. **Play type**: solitary / parallel, cooperative / social and linear. Definitions of play types used in this investigation are summarised in Table 8.21.

Individual items of equipment may offer opportunities for different play types; net swings being used for both *solitary* and *social* play; units with multiple swings *solitary* and *parallel* play; some designs providing *parallel* play for those with differing abilities (Figure 8.124).

Figure 8.124 Multiple swing unit supporting solitary and parallel play

Figure 8.126 illustrates the percentage distribution of the twelve play activities in Figure 8.124. This reflects current provision across the case study sites, five play activities providing 78% of the activities offered, these all *active / physical play options*.

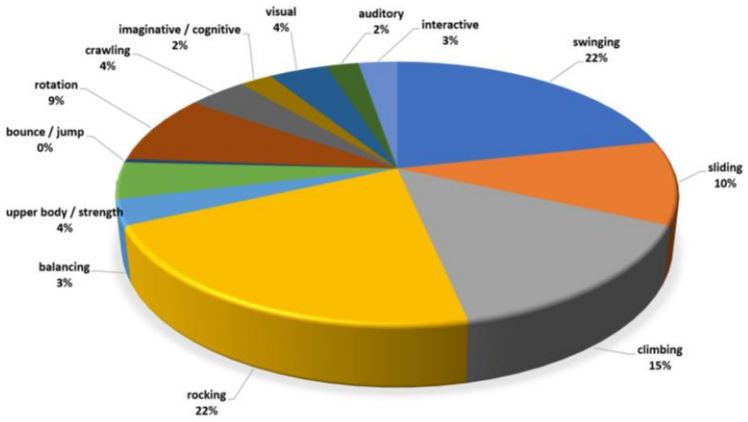


Figure 8.125 Frequency of play activity

Eight (50%) of the play value elements (Figure 8.125) were found at all case study sites. Five relate to ***active / physical play options*** (swinging, sliding, climbing, balancing, crawling & rocking), these being provided by traditional items of play equipment, the remaining three being ***play types*** (solitary / parallel, cooperative and linear play).
Of the ***active play options*** found at all case study sites, the option to *swing* was identified with the highest frequency for the provision of multiple options with more than one item of accessible equipment (five case study sites). Six case study sites provided more than one option to *climb* however only CSS2 provided an accessible option. *Slides* were installed at all sites, two offering a single option for this play activity. Accessible slides were found at four sites, two located with an alternative option to slide, but none with additional accessible provision. These findings are summarised in Figure 8.126.

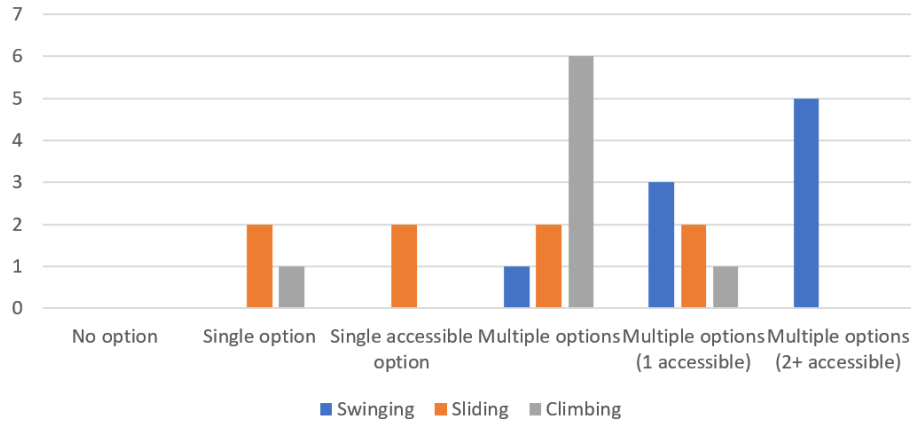


Figure 8.126 Three highest frequency active play options

Hendricks (2001, p156) advises traditional play park provision consists of 'swings and slides and teeter totters [see-saws]', data from this investigation supports this view with the addition of climbing, balancing and rotating equipment. Play activities within this investigation differ from play types, activities linked to the interaction with an item of equipment. Play types consider how the use of equipment supports interaction with others engaging in play activities. Analysis of the data from the PPET identifies the most commonly supported play types offered by these items of equipment, activities such as sliding offering *linear* play, and swinging *parallel* play (Figure 8.127).

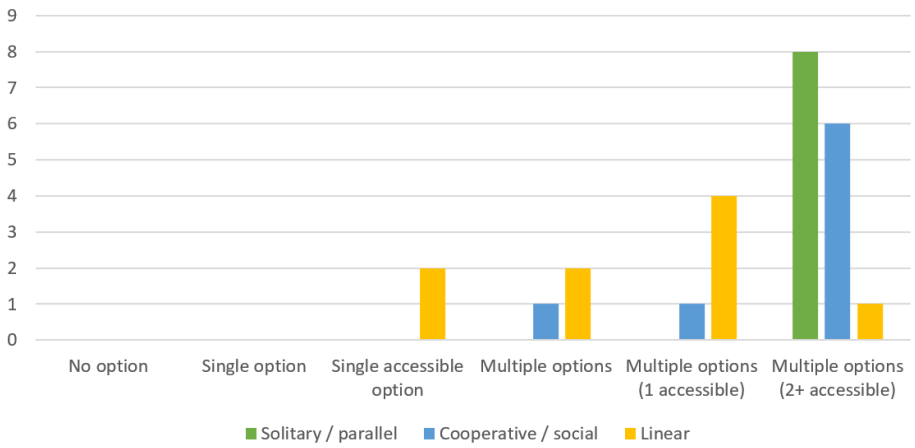


Figure 8.127 Three highest frequency supported play types

All case study sites offered multiple options for solitary play with a minimum of two accessible options; these typically being two swings, a swing and a slide or a swing and a roundabout. Multiple options for cooperative play were most frequently supported through the installation of see-saws and sand or water play. Accessible options for linear play were most commonly ground-based items of equipment, or slides set into an embankment. Modular units with raised sections (bridges, cargo nets, links and tunnels) provided alternative options for those able to access them. Not all options for active / physical play activities are well represented across the case study sites; *bouncing / jumping* supported at a single site through an accessible trampoline.

Sedentary / passive activities are supported by the inclusion of interactive or tactile activities including sand and water play, auditory and visual elements, and cognitive and imaginative play options such as interactive panels and play structures. Equipment and elements supporting sedentary / passive play were found with a lower frequency of

provision (Figure 8.128), this reflects a focus on active / physical play provision by case study participants. The addition of interactive activities, auditory or visual play options was considered something which could be added in later as these are '*smaller items*' (3TT-E-KW), 8DT-EM-BF: advising for their group '*like the xylophone, … because they weren't that expensive we'd go for the other things first and these ones you could put in later… you can slot them in somewhere*'.

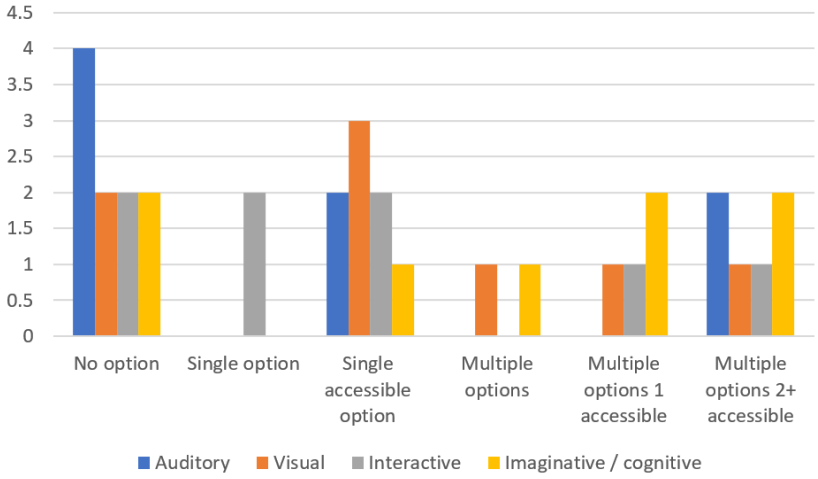


Figure 8.128 Sedentary / passive activities

8.14.3 Play value – accessible play options

Play value is as relevant to children with disabilities. Figure 8.129 illustrates the distribution of accessible play activities. In comparison with Figure 8.125 the five activities most frequently represented comprise 61% of the total, two activities differing. Crawling as an activity is an accessible option for those with physical disabilities. This provides 12% of the accessible play options (compared with 4% for all activities), with imaginative / cognitive play, a sedentary / passive play type providing 11%.

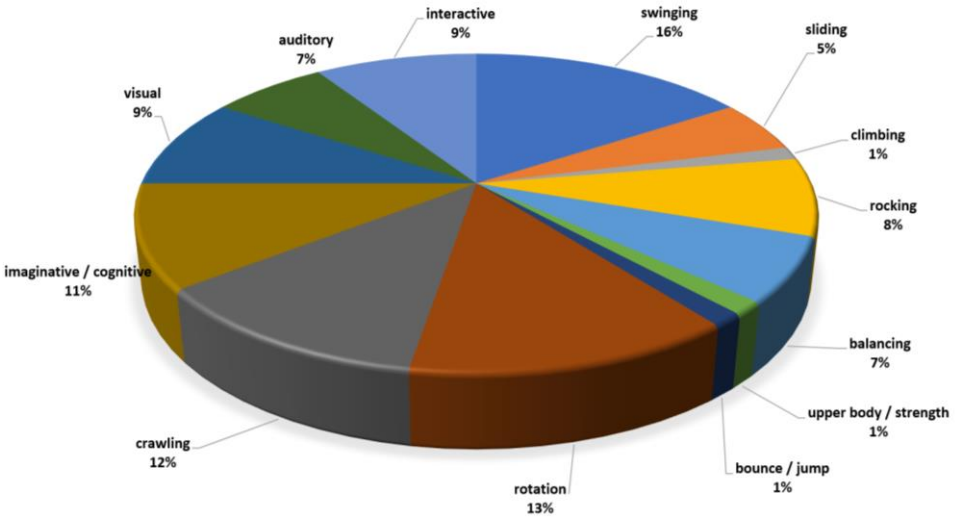


Figure 8.129 Frequency of accessible play activity

Data comparison identifies the three most common physical play activities supported for this user group are: *swinging*, *crawling* and *rotating*, swinging the only activity included in this dataset for both physically able and those requiring additional support. The accessible options are appropriate for those with a requirement for additional support, but also likely to require carer assistance to access them, especially for those with restricted mobility. Provision to support those requiring accessible equipment is not universally found at case study sites in contrast to the data for all ability levels (Figure 8.130).

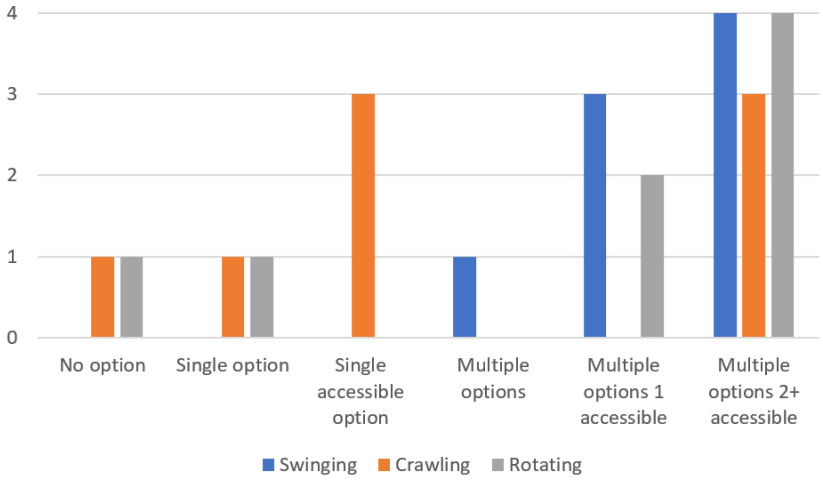


Figure 8.130 Provision for three most frequent accessible play options

Equipment supporting children with disabilities to engage in *climbing, bouncing / jumping* and *upper body / strength* play have low levels of provision, a single accessible

option offered for each provided at CSS2.

Reviewing the data and comparing the provision of equipment to support the three most common types of active play (Figure 8.126) highlights how these activities are not well supported for users with disabilities (Figure 8.112).

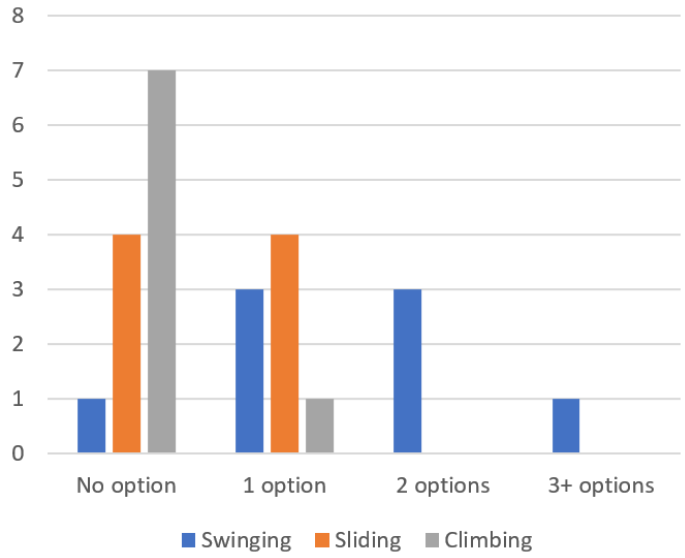


Figure 8.131 Provision for three highest active accessible play options

Passive / sedentary play activities are often more accessible options for play, requiring lower levels of physical ability, therefore an expectation of a high frequency of provision is not unreasonable. Figure 8.132 illustrates data for the four types of sedentary / passive play highlighting provision of equipment supporting this play type is limited.

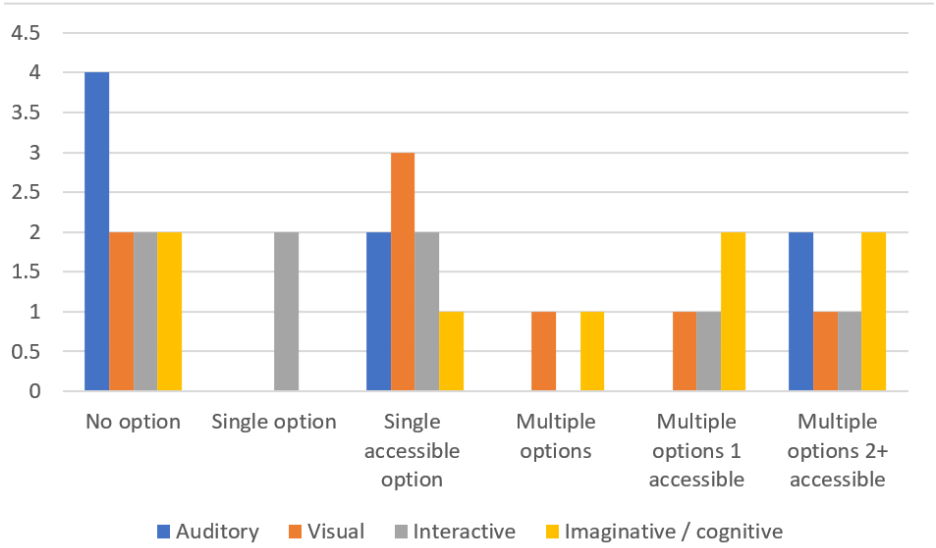


Figure 8.132 Passive play options

At the four case study sites where comparison of the previous and current provision is possible (CSS4, 6, 7 & 8) accessible provision was increased at all sites. Figure 8.133 illustrates the PPET play value data illustrated in the play value infographics for each site (Appendix E5). This comparative data shows how the overall provision is increased at each site, as is the number of accessible play options, however the number of accessible options remains lower than the total number of activities, the percentage increase ranging from 28% (CSS7) to 60% (CSS6).

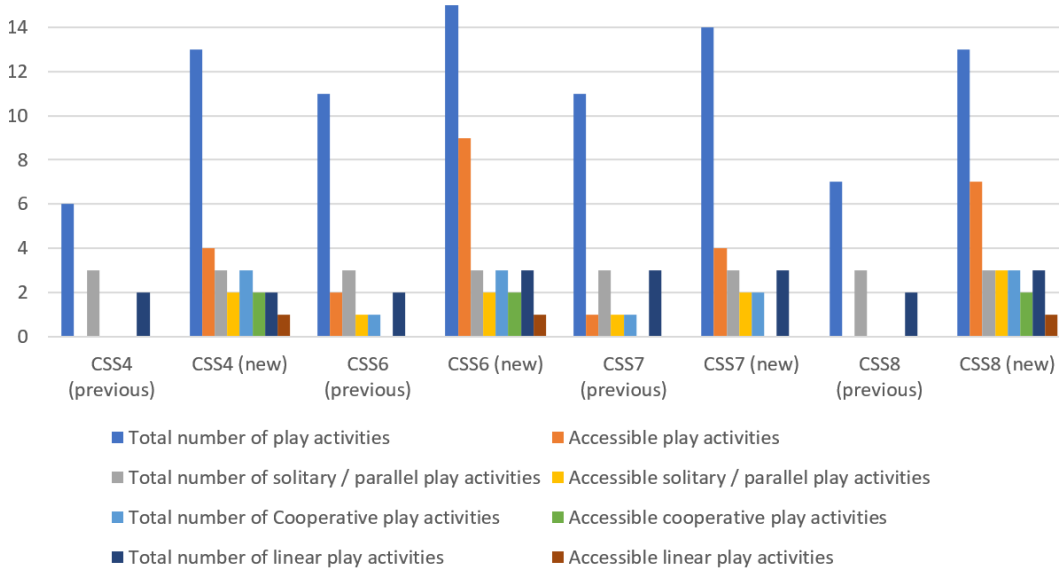


Figure 8.133 Comparison between previous and current provision CSS4/6/7/8

8.15 Summary

This investigation sought to understand the influences on the design choices and equipment selections made by those with responsibility for providing local play parks. This chapter summarises the findings from the participant interviews and site surveys, placing them within a structure provided by the themes and sub-themes identified in the literature review and the participant interviews. Play parks were viewed as valuable essential community resources with the potential to positively impact on children's health and development, however children had little direct influence on the development of these play locations reflecting the findings Hart (1992). This dislocation was further emphasised for disabled children who as a minority group did not have their voice elicited or promoted (Imrie & Kumar, 1998) through the consultation process. The findings in

regard to consultation and participation found that the involvement of communities was variable and did not reflect recommended good practice.

The selection and placement of play and non-play equipment affects access to the play park and as noted in the literature review the relationships or 'affordances' created has the potential to positively impact on the play experience (Hussein, 2017). The discussion of the research findings considers this and the reliance on prior experience by those making decisions, rather than through formal training or the use of available resources. This is supported by equipment providers and is considered of benefit by participants. Promoting inclusive play was identified as a key concept but the understanding of this and of usability varied and was reflected in the resulting provision. These two concepts with that of play value are highlighted in the literature review as linked to the delivery of high quality play provision. The in-depth evaluation of these enabled by the use of PPET facilitates an understanding of the effectiveness of provision. The participant interviews provide clarity on how and why these choices are made reflecting the barriers and enablers they experienced.

These findings are discussed in the following chapter the structure of which reflects that of the results chapter, initially focusing aspects linked to the site, then on those involved with its' provision, their decision-making and concluding by discussing aspects linked to play.

Chapter 9 Discussion

9.1 Introduction

Data collected in participant interviews in the main investigation was analysed through Nvivo10© enabling the identification of common themes between the literature review and case study sites. Interest in play park provision can be divided into two areas; those interested from an academic perspective, and those active in the commissioning and provision of play parks. Whilst these two are not mutually exclusive, most academic investigations focus on examining existing play parks (Perry et al. 2017; Reimers & Knapp, 2017) rather than initiating or following the new provision process. Participants responsible for the case study sites were not academics considering the implications of their efforts, being either local government employees or volunteers. The exception was 2LG-SW-DW, a volunteer, who used her consultations and decision-making as data for an MSc dissertation. Written sources of support for play park provision, such as those produced by Play England, are evidence-based, citing relevant articles and reports but do not guide readers to consult current academic findings when considering new provision. Investigations undertaken to support decision-making by participants therefore did not take an academic stance or approach and had a generalised focus. This is in contrast with academic investigations and their resulting reports and publications which are designed within relatively specific parameters. This does not mean participants' thoughts and opinions, elicited during interviews, are less relevant when considering play park provision. Indeed, as their decisions and actions directly influence current provision, it can be argued their thoughts and opinions could be more relevant due to their direct impact on children's opportunities for outdoor play. As detailed in the methodology chapter, interviews contributing to this investigation adopted a semi-structured interview approach. This enabling the researcher to investigate specific topics across all case study sites, but also allowing participants to widen their responses to include additional areas of interest, or those with relevance to their site.

A review of the interview data identified that participants discussed their provision at a level of detail reflecting the importance they attached to different aspects. Additional

information or explanation was requested only where discussions did not provide sufficient detail for the topics listed in the interview schedule (Appendix D). Thus, this aspect of the investigation utilised data from specific locations bounded by a set timeframe and 'concerned with depth and intensity of findings' (Gray, 2009, p202). This idiographic approach was used to elicit the importance or weight given by participants to different topics via a word frequency count. Where relevant, results from site surveys were considered alongside interview data, providing a comparison between the intended outcomes as stated by participants and current case study play park provision.

The discussion initially focuses on high-frequency themes from the literature review and interview data. The following discussion is aligned with the structure of the results chapter with aspects linked to case study sites addressed first. This followed by themes linked to play and the design choices made by participants. Within this chapter are a proposed consultation timescale and suggestion of how the play value infographic could be utilised to illustrate the play value at individual play park sites.

9.2 Themes

Themes arising from the literature review

Research and literature relating to play parks are wide-ranging, encompassing investigations with a focus on play parks, to others where the research is not directly linked with outdoor play in these locations, or indeed play at all. Examples of the latter include research investigating how children are involved with consultation activities, and studies around air or soil quality linked to health conditions. The relevance of these seemingly unrelated areas explored in both the literature review and the discussion chapters.

The synthesis of the literature review identified the following themes:

- The importance of play, and play outdoors
- The benefits and disadvantages of play outdoors
- Accessibility of play parks
- Socialisation during play in play parks

- Challenge as an essential aspect of play in play parks
- Risks and hazards linked to play in play parks
- Play value (choice of play park equipment / play park design)
- Active involvement of children and young people in consultations

These themes reflect the areas of interest of researchers with interests aligned to aspects of play in play parks. The body of literature relating to each of these themes varies, reflecting the emergence of new areas of interest, which includes the links between the choice of play park equipment, design, and resultant play value.

The approach of those responsible for creating and managing play parks differs from researchers and academics. Their focus is on meeting an identified need within a community, and, in most instances, they act within the remit of a local council. Here the emphasis is on the creation of a play park as an outcome, rather than the implications of its creation. Analysis of the data from participant interviews linked to case study sites (CSS) resulted in the identification of similar themes to those found in the literature review, the emphasis of these differing and, as noted previously, discussed elsewhere in this thesis.

Emergent themes from the interview data

The process of data analysis through Nvivo10© is outlined in Appendix M, the review and revision process resulting in the identification of four main themes. These listed alphabetically as participants placed different emphasis on different aspects of provision:

- Community
- Development process
- Play and aspects related to play
- Site and local area

Within each theme key issues were identified which are discussed in this chapter in the context of the results of this investigation. Identified key issues for community include both barriers and enablers such as personal opposition and completion of consultations. The development process highlighted a number of issues with time,

budget and the knowledge base of participants discussed. Whilst recognising the need for children to play the participant interviews highlighted the limited knowledge and understanding of how to achieve inclusive play provision and recognition of the positive outcomes of outdoor play for all children. The final theme, site and local area demonstrated the commitment to provision of high quality play provision but did not identify a consensus on what this consists of or how it can be achieved. Within each of these themes there are linked sub-themes, each of these is coded as a node within Nvivo10©. Across the four main themes there are a total of 19 nodes and 25 sub-nodes (Figure 9.1). A larger image is included in Appendix L for clarity, as is a description of the data analysis approach using Nvivo10© (Appendix M).

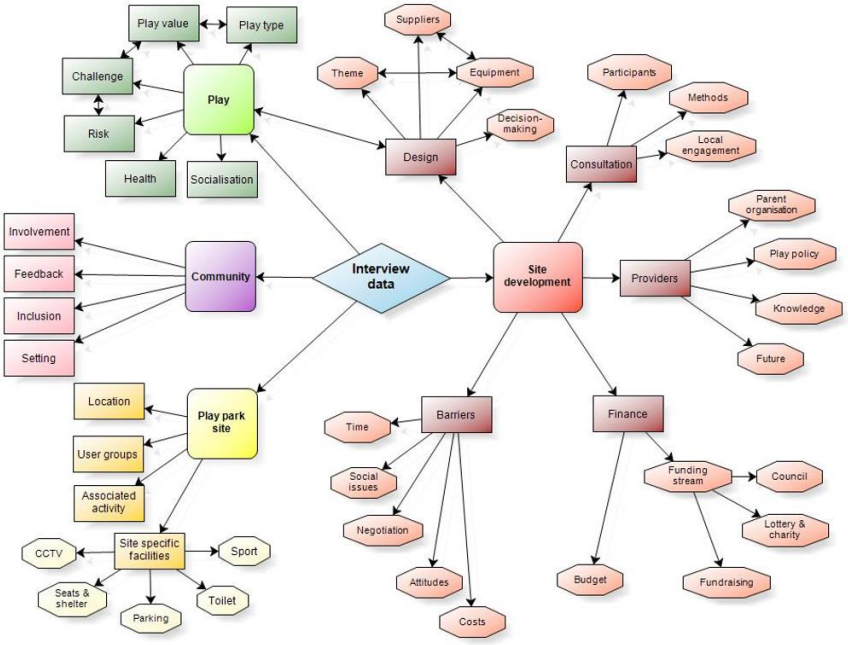


Figure 9.1 Nvivo10© Nodes and sub-nodes created from interview data

The semi-structured interview approach providing data generated through the use of open-ended questions; subsequent word frequency searches supporting the identification of themes. Once the data analysis was complete the four Nvivo10© themes / nodes were compared with those identified in the literature review to identify common areas. This reflection and comparison identified common themes which overlap the four main Nvivo10© themes. This relevance is illustrated in Figure 9.2; for clarity a larger image is included in Appendix K.

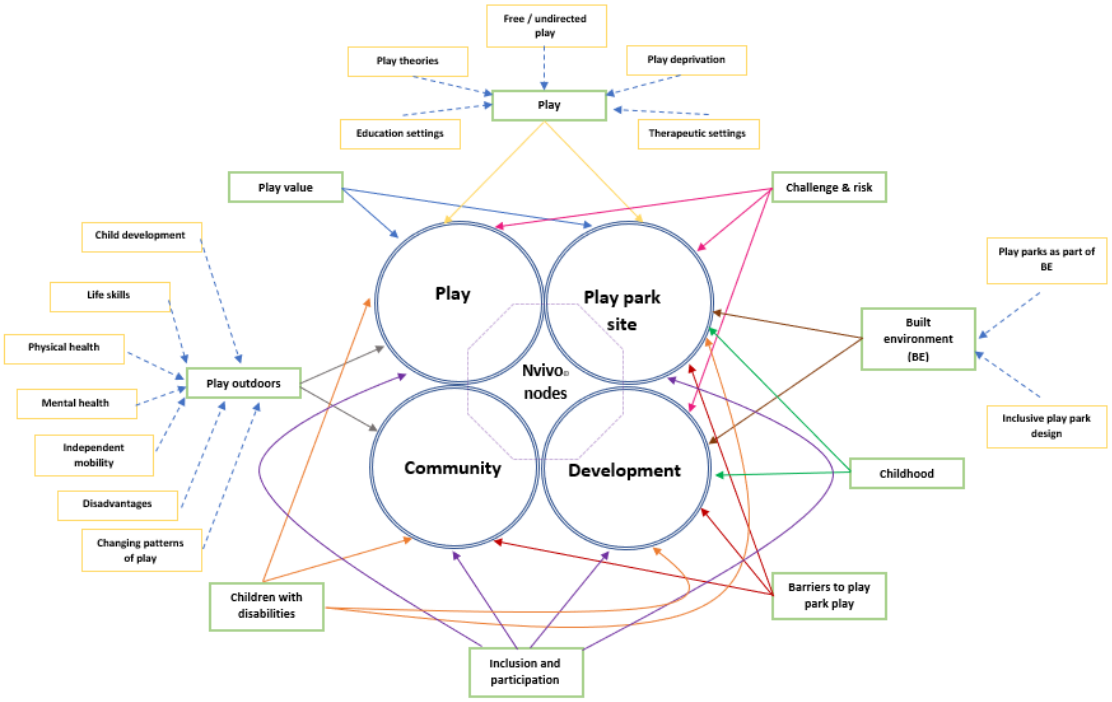


Figure 9.2

Links between literature review themes and sub-themes and Nvivo10© nodes

This comparison as noted above highlights the different approaches to the same subject by academics and those responsible for provision. Practicalities faced in real-world situations such as time and budget constraints are key considerations for play park providers. Whilst recognising promotion of physical activity will have health benefits for children, the focus of providers will not be on the breadth of benefits which could be achieved. Conversely, whilst recognising the constraints of real-world situations the level of understanding of these by academics and researchers will be tempered by the approach to an investigation. A thematic analysis of existing evidence will not provide the same understanding as an Action Research approach. The four key participant themes identified through the use of Nvivo© are broad in comparison to the literature review themes but, as illustrated in Figure 9.2, each encompasses aspects of the literature review themes. The academic approaching revealing the complexity of the undertaking to provide a local play park.

High frequency topics within interview data

Whilst the data analysis within Nvivo10© grouped data under four main nodes this did not fully reflect the importance ascribed to topics across all case study sites. The

availability of information varied, with access to additional written information for some sites or more interview data from a higher number of participants. To elicit the key themes for participants within the interview data word frequency searches were run using Nvivo10©. This software identifies and groups words with either exact or similar meanings and supports additional analysis through the creation of word trees. Figure 9.3 an example of a word tree, this for 'disabled', (word frequency searches of the transcripts identifying this as the most common descriptor applied to children with disabilities).

Figure 9.3 Word tree created from participant interview data in Nvivo10©.

The frequency searches investigated keywords, stemmed words, synonyms and similar words; a list of these included in Appendix N. This data was reviewed in context to ensure references were allocated to the most appropriate heading. This contextual review enabled the emphasis of the participant to be considered assisting researcher understanding. In the English language two keywords, *play* and *park,* are used with different meanings and uses; albeit ones which have relevance to this investigation.

'*Play*' can describe an activity, as a descriptor (X *play*ed a part), and a location *play park*. *Park* can refer to a location (car *park* / play *park*) or even an action (they *parked* that decision for a later date); the review identifying these different contexts and assigning them to appropriate themes. The review of the terms most frequently used by case study site participants and identified through Nvivo10© tools including word trees were compared with the literature review themes identifying the four headings these most closely matched with:

- Play
- Inclusion and participation
- Challenge and risk
- Play parks as part of the built environment

The interview data was further allocated to sub-themes where appropriate, these again reflecting the headings used in the literature review resulting in four main themes and 6 sub-themes (Figure 9.4).

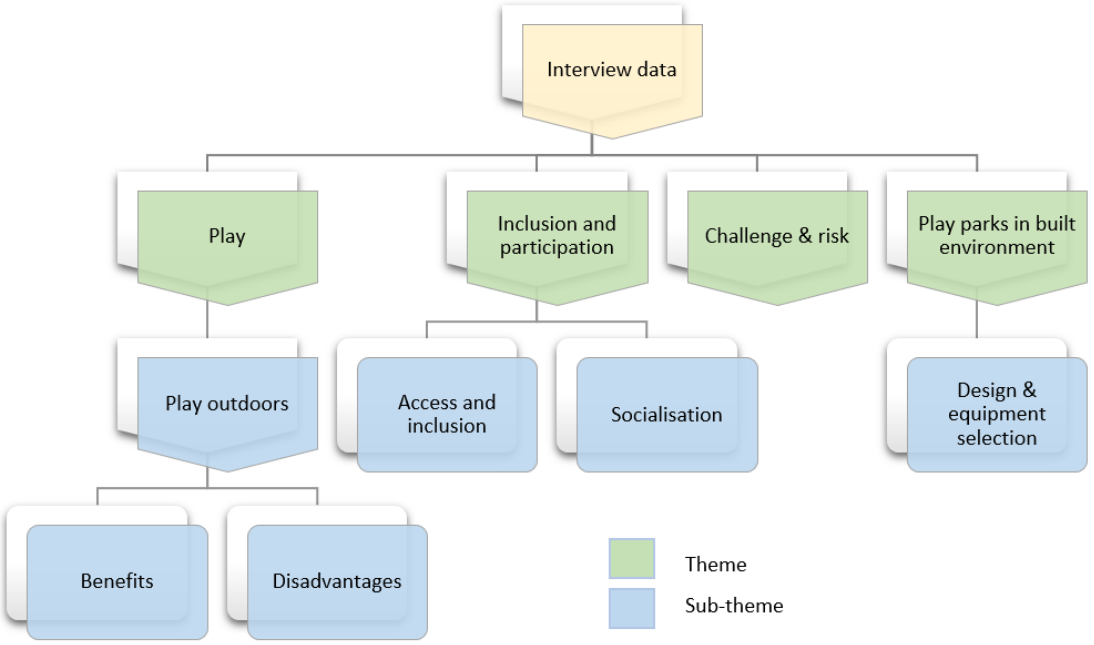


Figure 9.4 Interview data themes and sub-themes

The frequency of references was noted for each case study site and are listed in Table 9.1 and discussed in the following sections in this chapter.

	Theme	Theme frequency by case study site							
		CSS1	*CSS2*	*CSS3*	*CSS4*	*CSS5*	*CSS6*	*CSS7*	*CSS8*
1	Play / play outdoors	1	4	4	4	1	11	6	6
2	Benefits linked to outdoor play	3	10	0	0	0	0	1	0
3	Disadvantages of play outdoors	2	10	0	9	4	2	6	5
4	Accessibility & inclusion (including children with disabilities)	5	17	17	14	13	14	27	7
5	Socialisation in play parks	2	37	3	3	3	2	2	3
6	Challenge & risk in play parks	0	10	0	3	0	1	2	0
7	Design & equipment selection	10	24	10	13	29	42	17	13

Table 9.1 Results of word frequency queries from case study interviews

9.3 Consultation

Involvement in consultation, participation and decision-making are noted in the literature as key in the creation of inclusive environments, moving from a paternalistic approach to one which values the end user's knowledge and values (Heylighen & Bianchen, 2013). Where a project is created for children, there is a danger for some end users of the play park, those historically viewed as 'mute' or not having a 'voice' such as the very young or those with disabilities, that others will speak for them. The age of the adult(s) leading a project may influence their opinion on which aspects are key. Sandseter (2011) finding that as we mature our recall of which aspects of play held most importance altered, moving from the location of play sites to the play types offered.

Appreciation of the impact of an adults' position of authority when working to create a play park is not a priority for individuals involved. They become involved as a way of giving something to their community, to provide an amenity for use by their children, or from an obligation within a formal role. None of these initial positions places involvement of children, or those requiring support to participate, as key considerations. This reflecting Driskell's (2001) stance the world is managed and

controlled by adults, and it is they who determine how and when changes occur. Those working with children are increasingly aware of the need to engage children and young people in decision-making, seeing this as a response to the challenge within the UN Convention on the Rights of the Child (UN, 1989) for children to take an active part in social and political decisions. Involvement with consultations supports skill acquisition by children and young people, supporting the transition to adulthood. For those working outside of this field the concept of child-led activities, consultation and participation in decision-making may be outside of their expectation, and some may lack the tools or knowledge to facilitate effective consultation.

That said all participants recognised, as play parks are community facilities, consultation should be a process linked with their development. Advice and information from relevant bodies, including Play England (2008), recommend consultation with local populations during creation or refurbishment. Across the eight case study sites consultation was recognised as a method of gathering views and preferences, disseminating information and, for volunteer groups, supporting fundraising activities. Interview data highlighted approaches to consultation differed, from CSS3 and 7 completing brief initial consultations, to CSS2 utilising a number of different approaches and ensuring involvement of a wide range of user groups, consultations continuing through to the final design stage. Within the context of this investigation it has not been possible to identify the degree to which information gathered directly informed the final choice of equipment. It was acknowledged by participants that resulting provision was the lead group or individual's interpretation of the consultation data. 6PG-E-GB acknowledging the inclusion of a zip-wire in the original scheme was as much 'for me, as for the kids'.

The advice from Play England in Design for Play (Shackell et al., 2008, p46) notes constant consultation could lead to 'consultation fatigue' and suggests data from previous community consultations are used to assist in the decision-making process. This approach has disadvantages, firstly volunteer groups may not be aware of previous consultations, or able to access the data. Secondly the data may be out of date or not relevant to their project. Finally, possibly most relevant, is how this reliance on previous information distances communities from planned developments. Reflecting on their

development process participants from CSS3 and 7 commented on this aspect. 7-NR-EM-SP did not consider the City Council's paternalistic approach to be an issue, enabling rapid decision-making and fulfilling their obligations. She did not relate the potential distancing of local residents to associated issues such as anti-social behaviour. 3TT-E-KW adopted a different stance reflecting if she had been able return to the project conception she would have been pro-active in consulting with the population served by the park:

> '*I would do it differently, no one showed any interest at all. We updated on progress through the local paper, we didn't get any feedback*'

and

> '*I kind of wish I could go back because I think I could do it very differently*' (3TT-E-KW)

The overall approach to consultations across the case study sites could best be described as 'patchy', with groups and individuals adopting approaches which they felt 'most comfortable with', as, 'they say consult, but who with, when and how? It's left up to us' (4A-EM-DH). Where there was a strong sense of community participants reported consultations had been effective, and in the case of CSS2 the efforts made to link with the local community contributed to the reduction in anti-social behaviour advised

> *'once we got over the first two years those teenagers grew up and moved onto other things, but then … coming immediately behind them were the very children who had been active in setting this play park up, it was <u>their</u> play park'* (participant emphasis). (2LG-SW-DW)

This engagement reflects Hart's (1992, p8) Ladder of Children's Participation, this posits an approach where active involvement of children in the consultation process is most effective. Hart adapted Arnstein's metaphor (Figure 9.5) to illustrate different approaches to consultation with children.

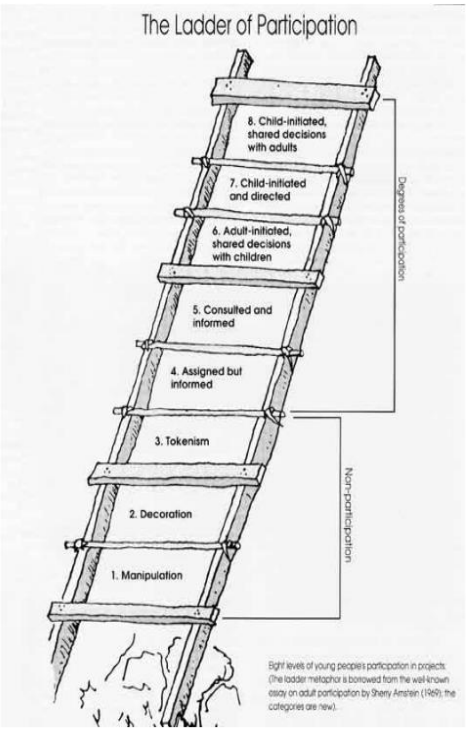


Figure 9.5 Hart's Ladder of Participation

From dis-engaged 'Manipulation', where adults are in control of all aspects as the lowest rung; and projects conceived, initiated and run by children the highest point (rung eight) (Hart 1992). Where consultation with children was completed no case study site adopted the recommended 'rung eight' approach where children and adults are equal in the decision-making process, nor consultations initiated by young people (rung seven).

The approaches taken varied, but in most cases sat within rungs three to five; tokenism (rung three), where children appear to have a voice but no choice in how or when they participate, rung four where children are assigned a role by adults and advised what this entails, and rung five children consulted then informed how their input influenced outcomes. There were however instances (CSS1 & 7), where no direct consultation with children took place.

Consultation, participation and decision-making are intertwined processes. Where participation is set within the higher rungs of Hart's 1992 model decision-making is shared or even child-led. CSS7 adopted a paternalistic method towards development, in line with the city council's overall approach; those with responsibility for play parks deciding in most instances when and where most additions or re-developments occur (7MN-EM-BR). This and the limited re-development planned at CSS7 meant, following an initial request, consultations were limited, completed via initial unstructured conversations with the parents making the request, and a local special school. This latter

consultation initiated by an unplanned meeting at the play park. In the context of the Ladder of Participation (Hart, 1992), this consultation is placed on the lowest rung, completed for, rather than with or by, children preventing active participation in equipment selection. End users and the local community distanced from the process. However, without further investigation, the lack of cohesion in the resulting provision cannot be directly attributed to the procurement process used. It is unlikely this low level of engagement with children will be found in future developments as the city has announced its intention to achieve UNICEF Child-Friendly City status (BBC Local Live, 2017) which requires an ethos of active engagement with children across any areas affecting them.

Analysis of the consultation process with communities demonstrates sites can adopt Hart's model; communities taking on the 'child' role, and those responsible for the creation of play parks the 'adult' role. Applying this lens to the case study sites a similar pattern is found with consultations varying from a tokenism approach to one where communities were consulted then informed. This lack of true participation was not adopted with intention of preventing or inhibiting participation; but resulting from a belief that the methods used and decision-making were appropriate levels of consultation and participation. This may be due to limited knowledge, but also from the time required to achieve the highest level of participation. This commitment may be beyond the ability of volunteers or indeed many council employees. The highest level of commitment may be more appropriate within research projects where an enquiry can investigate the efficacy of different approaches prior to devising a consultation and participation strategy.

Reviewing the different approaches to consultation identified areas of good practice, these effective in ascertaining the opinions of a wide variety of groups through utilisation of different consultation methods, these implemented at different times. Review of the interview data enabled the methods, timing and groups approached by case study sites to be collated and this identified common processes.

The ability to be effective in consultations is affected by the population to be consulted. CSS1 limited consultations to those registered on their mailing list, whilst CSS4 canvassed all addresses in their village. 'Broad brush' consultations by CSS2 and 6 invited opinions and suggestions from wider populations, potentially including those unlikely to be users of a play park. Consultations require a commitment of time and funds which may affect their use; hard-copy questionnaires needing paper, print and distribution costs to be met. Online surveys can be accessed without a financial outlay, but these are restricted in scope, and advertising these to ensure they reach the intended population requires effort and outlay. It is of interest that no interview participant raised the cost or time required for consultation as an issue, and when discussing budgetary constraints did not link these to costs related to consultation.

Consultations in general did not ensure all the items of equipment requested were included, final decisions made by individuals, council officers, or the group leading the play park development. It is of note however, the intention at all case study sites was that the scheme would reflect requests. The focus at CSS2, provision of accessible equipment, meant the selection of specialist items of equipment was an interpretation of the requests made by consultation participants. CSS4, 5 and 6 completed consultations where proposed designs were presented, revising schemes to reflect feedback.

The consultation methods identified by interview participants as most effective in eliciting useful and relevant information are summarised in Table 9.2 (reproduced on a larger scale in Appendix O), thus providing a potential structure for future consultations. This table provides a timeline on the vertical axis indicating at which point in the development process a consultation method, could or should, be used. The horizontal axis is divided into broad age groups from those under 5 years to adults (18+). Reading the table, the intersection point of a line and column shows through colour highlights if this is an appropriate consultation method for an age range. Additional notes indicate aspects which should be considered such as the presence of responsible adults during the consultation. Notes in the right-hand column offer information to support consultation methods as well as suggestions such as the inclusion of age / gender data to assist in identifying under-represented groups. Also

included is advice on consulting with people with cognitive impairments, and the importance of providing feedback following consultations. This validating both the process and information gathered. The recommendation for a consultation following completion of a play park borrows from the concept of post-occupancy evaluation where all stakeholders contribute to the evaluation of a new building. This final consultation noting both areas of good practice or effective provision but also providing an opportunity to highlight areas or user groups where additional provision will enhance play value, usability or accessibility.

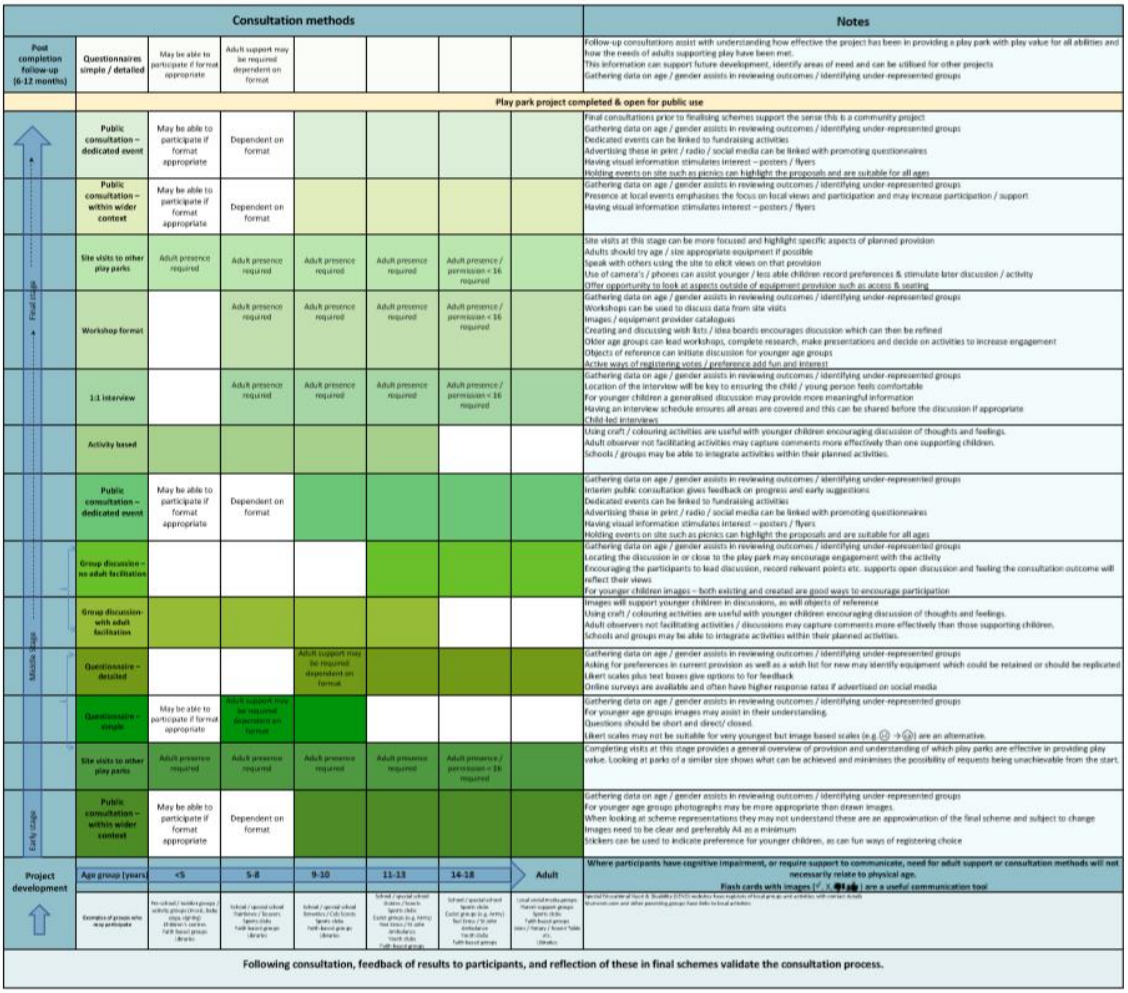


Table 9.2 Proposed consultation methods and timescales for play park projects

Consultations do not ensure equitable decision-making, this is an area where there was no consensus identified between the case study sites. Reviewing the information from consultations and identifying which items of equipment are to be included in a play

park did not appear to have any formal structure, and open to subsequent challenge even where ratified by more senior council employees or at Parish Council level.

9.4 Community

Socialisation linked to play parks is not solely linked to active use, or by those supporting children's play. The process of consultation and fundraising can provide occasions for sections of a community to engage and interact where usually they would not have opportunity or motivation. Social fundraising events were identified by CSS4 as times where the village community came together involving those without children of an age to use the play park to help 'create a village amenity' (4A-EM-DH). Engagement with the communities around CSS2 were attributed by 2LG-SW-DW as contributing to the reduction in anti-social behaviour. The role of the play park in creating community links was, for some participants, not solely linked to face-to-face meetings. At CSS6 the use of social media to call for support and to advertise fund-raising events forged new friendships based in the digital world (Facebook and Twitter), creating a digital community who socialised and interacted online only expecting to physically meet once the new play park was opened (6PG-E-GB).

9.5 Site design and impact on patterns of use

Play equipment rarely sits in isolation, provision is of clusters of fixed equipment to provide different play experiences and / or challenges. That said, how these items are placed within the play park context has an impact on the appeal, use and success of provision. The inclusion or exclusion of equipment and other aspects of provision can affect the way in which a site is used, although evidence can at times be conflicting as found by Reimers and Knapp. Their investigation concluding the presence of natural elements 'was inversely associated with playground usage', this outcome 'surprising as evidence suggests children desire natural environments' (Reimers & Knapp, 2017, p667). The impact of this was seen across the different play park sites. CSS1 and 5 are larger parks with topography varying across the site. Placement of equipment selected to reflect this; the results are diverse and interesting sites. Additionally, both sites installed pathways to link different areas and equipment, as has CSS2. These pathways

provide a clear route between equipment and areas, encouraging exploration and a varied play experience. This subliminal influence on patterns of behaviour within the built environment is termed 'Affordances'. The influence of affordances on play behaviours is in line with Hussein (2017), with the environment influencing actions in both positive and negative ways. The development of this theory proposes these affordances can be designed into environments as invitations (Heft, 2010; Withagen, de Poel, Araujo, & Pepping, 2012). In the context of play parks, the design of the environments and placement of items within them provides invitations, actively drawing users to different play opportunities; in these case study sites the pathways are the affordances.

This opportunity to encourage exploration and play activities is not found universally within play parks, and this is reflected across the case study sites. Pathways are not the only affordance within play parks, although perhaps the most obvious. This opportunity to promote active play and different play experiences is one which is partially achieved within many schemes. Trim trails; a series of balance and upper body strength activities, are installed so users are led from one challenge to another, the layout offering an 'invitation' to move in a linear direction via the items of equipment. This illustrated by large-scale installations at CSS7 where a trail leads from one area of the play park to another (Figure 9.6), and an additional trim trail leads through a wooded area. These invite users to pass between the different areas of the play park. On a smaller scale the trim trail at CSS8 is sited centrally in the play park (Figure 9.7), the initial invitation here to complete the challenge of the equipment.

Figure 9.6 Trim trail CSS7

Figure 9.7 Trim trail elements CSS8

Figure 9.8
Trim trail exit leading to the climbing net CSS8

Figure 9.8 illustrates how this approach can be utilised further, the exit from the final element of the trim trail inviting the user to move towards the net climbing frame and to experience a different play activity. This contrasts with the position of the slide within the same play park. Here figures 9.9 and 9.10 show the direction of travel from the slide. This is away from other play equipment, and towards the exit and car park. Granted, the position of the slide must consider the momentum of users as they exit the chute to ensure safety, but the affordance in this instance is to 'invite' users to exit the play park rather than to continue to explore play opportunities.

Figure 9.9 **Figure 9.10**

Direction of travel from slide at CSS8

Modular units with multiple exit points may not offer affordances at all options but locating them in the centre of the play park would enable other items to be positioned and orientated to provide affordances. Conceptual drawings for CSS6 and 8 provided proposed layouts indicating the equipment items selected. Review of these highlighted differences between these drawings and the completed projects. For CSS6 there were minimal differences, additional items added to the original design, and relocation of an item to retain seating already installed. These changes in response to a revised budget, the overall design retains the relationships between items, utilising a pathway to link these and maintain the concept of a castle and a moat. This link provides cohesion and the affordances offered by the pathway ('moat') and bridges adding to the flow of play around the site providing opportunities for imaginative play.

The concept drawings for CSS8 offered more affordances than the final installation as the placement of equipment varied to a higher degree. In the concept drawings play equipment was orientated at different angles; these hinted at opportunities to encourage movement between them. The final scheme has a number of elements placed in a linear orientation along the boundary reducing invitations to move between them. This alteration described by the equipment suppliers as 'standard practice'. There is no clarity on how the installation design was finalised, representatives from the supplier, installer and commissioner all indicated they had not been party to the final decision. It appears the inclusion of a concept theme (castle and moat) at CSS6 which was reflected in the scheme drawing directed the final installation. This creating a play park with relationships between items, achieving the aim of encouraging opportunities to explore different play activities.

Where equipment is installed piecemeal, either replacing equipment or adding to provision, there is the opportunity to consider affordances and invitations to play. CSS7 adopted this approach. It is clear from the placement of the items little consideration was made regarding their orientation or location to promote movement between them. The resulting layout is fragmented even though there is sufficient space available to consider different locations. Figure 9.11 illustrates the current position of equipment and the direction from which these are accessed and exited. With an adjusted layout (Figure 9.12) movement between items could be facilitated, the 'flow' around the play

park encouraging children to try different play experiences. (The key to symbols is provided in Figure 9.13.)

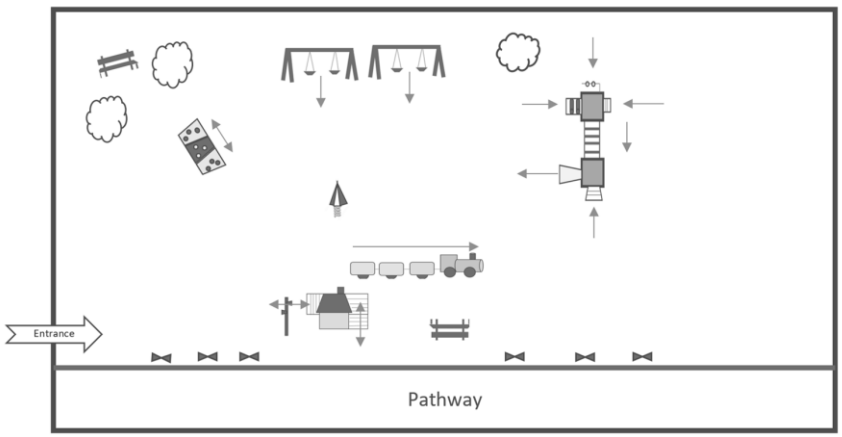


Figure 9.11 Current layout CSS7

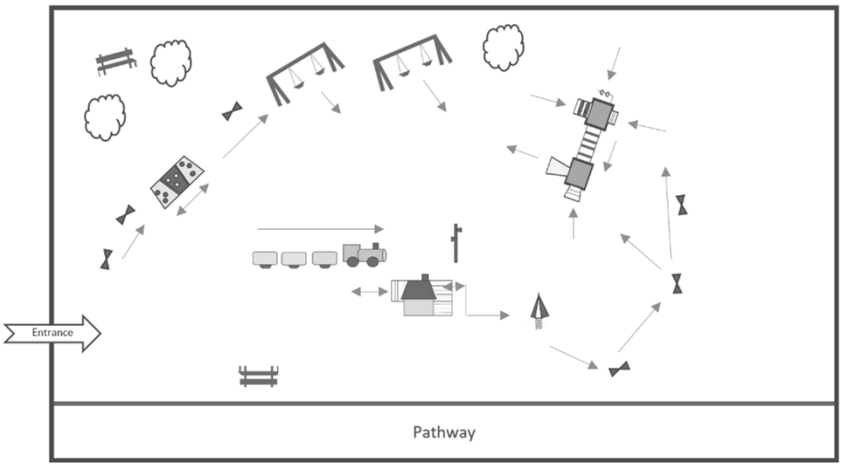


Figure 9.12 Alternative layout CSS7

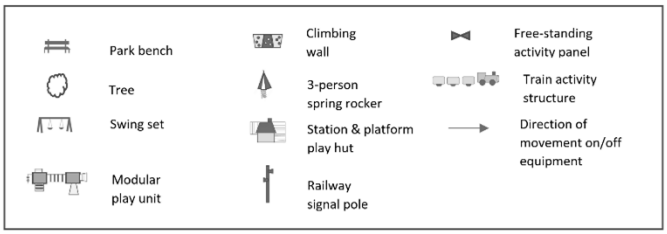


Figure 9.13 Key to symbols Figures 9.11 & 9.12

The concept of affordances is not one which is widely appreciated outside of academia and specialist professions such as landscape gardening. The creation of playparks is, as

identified across the case study sites, generally the responsibility of individuals and groups without formal training, therefore focus is on the selection of equipment rather than how these items are placed to promote interactions. This approach described by as one where an individual has selected 'one catalogue and said we will have one of those and one of these, and then they have slapped them in where they think they should go' (2LG-SW-DW).

9.6 Socialisation in play parks

Play parks are places where children are expected to engage in physical play activities, however this is not the only activity which is supported in this environment. For children time spent with friends, and time spent in an environment where they may meet new acquaintances, play parks provide a location to socialise in. Supporting children to play in play parks does not necessarily require constant one-to-one supervision, therefore this location offers adults time in which to socialise, thus making play parks key social locations for both children and their carers.

Children's perspective

Play parks are areas in which children are expected to gather and interact, these opportunities contribute to the development of social skills (Buchanan & Johnson 2009; McClain & Vandermaas-Peeler, 2016). Interview participants recognised socialising within their play park as a key aspect of provision, CSS1 and 2 linking this to their promotion of inclusion enabling disabled and non-disabled children to interact during play. This need to provide accessible inclusive play for children with disabilities providing the impetus for the volunteers creating CSS3, both of whom have disabled children with very different support needs during play. This highlights the need to consider the provision of not only different types of play, but also the need to offer equipment providing various levels of support. Play activity differs with age, older children often 'hanging out' or socialising as much as actively using play equipment. Social interactions are supported by the introduction of teen shelters, and equipment such as the net climbing frame at CSS7, this design type described by 2LG-SW-CJ as having 'hang-out zones'.

Discussions in the literature consider the relevance of separating younger children, creating zones with equipment appropriate for their development or a child's physical size and designed to ensure safety. This prevents interaction between children of different ages, arguably removing an opportunity where social skills such as negotiation and compromise can be developed. Reviewing case study provision, two sites had fenced areas maintaining distinct play zones for those of different ages or abilities (CSS3 & 7). This approach contrasted by the decision by CSS6 to alter the play park layout, reducing two enclosed areas to a single zoned play park. The remaining case study play parks had open sites; CSS1 mixing equipment of different sizes across the site. CSS2 took an individual approach with equipment selected to promote play by users of all ages and abilities therefore not needing to consider the introduction of zones. The relevance of zones and fenced areas was considered in the creation of new play parks at CSS 3,4, and 6 reflecting the topics of safety and socialisation raised in the literature. At CSS3 retention of two fenced areas was a decision taken by the responsible council. This design choice against the preference of the volunteers initiating the project, who considered this arrangement impractical when responsible for children with differing needs. Also, this worked against their intention to create a site where children can 'learn about difference and create harmony and integration' (3TT-E-KW).

Adult perspective

Whilst adults generally access play parks in a supportive role, time spent in such settings offers socialisation opportunities. The changing nature of children's leisure time; increased time in organised activities, digital and online play impacts on adult / child interaction. Opportunities to engage in play outside of the home environment, away from distractions including everyday routine tasks, provide time to interact and socialise. This adult / child interaction during play provides pleasure for both parties strengthening emotional bonds. This is not to say equipment selection at case study sites prevented use by adults. In addition to the approach at CSS2, the Tango swing unit at CSS8 was selected to facilitate face-to-face play between an adult or older child and a toddler. Other items such as nest swings, in-line rope swings (Figure 9.14) and wide-seat rocker units (Figure 9.15) enable adult play alongside children.

Figure 9.14 In-line rope swing CSS4

Figure 9.15 Wide seat rocker CSS3

Adults also have opportunities to socialise with other parents or carers whilst in play parks. Indeed, this a key location for 'play dates', encouraging child socialisation and friendship building between parents thus forming support networks. The design of the play park site and aspects such as seating can support and facilitate socialisation but can also limit opportunities. Where the layout obscures sightlines supervising adults will need to re-locate to ensure they are able to maintain the level of supervision their child requires. This constant motion means interactions with other adults are limited unless supervised children play together, or in parallel, as they move between items of play equipment. Where children require less supervision, or sightlines are clear, seating provides locations for adults to gather and socialise whilst their children play. As stated above seating is an accepted provision within play parks, but design and location will inhibit or promote this opportunity for adult interaction. As noted in Section 8.6 seating within play parks is generally of park or picnic bench design, usually sited individually. Whilst picnic benches provide an opportunity for face-to-face interactions, dependent on position, their design requires some users to face away from areas of the play park, or have their view obscured by those sitting opposite them. Park benches do not present this issue, but their position will dictate opportunities to interact. Traditionally they are placed singly, this configuration found across all case study sites including the examples in Figure 9.16 from CSS5.

Here the size of the play park is such that a high number of benches are required to provide seating with an overview of different areas, the highlighted examples providing a view of the equipment but not promoting adult social interaction.

Figure 9.16 Park benches CSS5

The impact of seating type and location can be seen at CSS3 (one park bench in the 'toddler' area and two picnic benches within the grassed space between the fenced areas) as illustrated in Figure 9.17, sightlines from the three seating options shown (presuming only one side of the picnic bench is occupied). Figure 9.18 illustrates the reduced range of vision when picnic benches are fully occupied. In this location the placement of picnic benches is outside of the fenced areas further reducing areas which are clearly visible.

= Picnic bench = Park bench

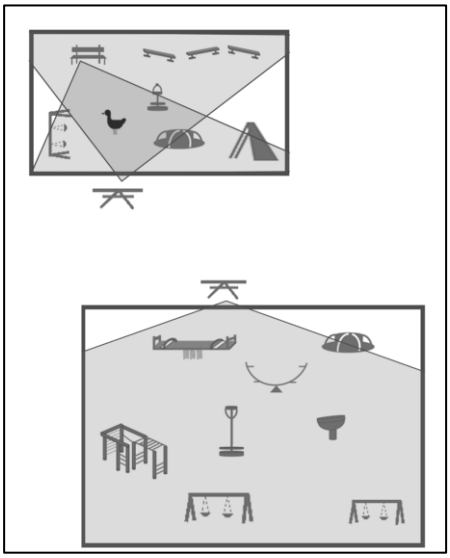


Figure 9.17 Clear sightlines

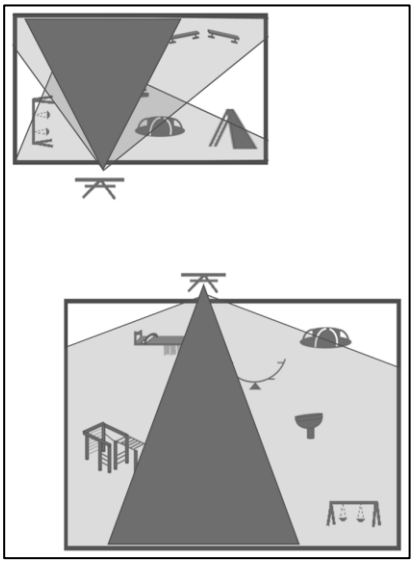


Figure 9.18 Obscured sightlines

Placing benches at 90° at the corner of the play park (within the fenced area) would provide opportunities for adults to sit and socialise whilst maintaining clear sightlines across the play area (Figure 9.19).

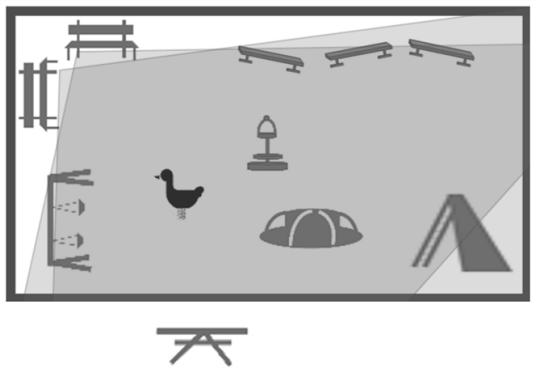


Figure 9.19
Seating provision / position to maintain sightlines and promote adult socialisation

9.7 Barriers affecting access to play in play parks

Affordances support and encourage the use of environments and the absence of these can act as a barrier, as do societal attitudes. Introduction of legislation including the DDA 1995 and Equality Act 2010; technical advice (Building Regulations, 2010) and guidance in BS 8300-1:2018 (BSI, 2018) places responsibilities and obligations for the provision of accessible facilities within the built environment. Increasing accessible and inclusive provision is part of the process by which societal attitudes will alter over time. Where there is an acceptance of the 'ableist exclusions in public spaces' (Horton, 2017 p1161) the barriers faced by those with disabilities will remain even where legislation is enacted to address these.

It is not solely the selection or provision of equipment; or pathways linking these, which prevents the use of play parks by those with disabilities. There is a focus or expectation that these are facilities which promote active play. Historically this has been associated with use by children who are able to access play opportunities independently, and who are competent to utilise all items of equipment. Less-able siblings are observers left on the side-lines. Addressing these barriers is not simply a case of introducing pathways and accessible, usable equipment, although these are important. Within society there

are barriers and enablers which we learn to recognise and respond to; common signs which we interpret through familiarity. These include signs and symbols such as those identifying toilet facilities; most will understand the difference between the following symbols:

Figure 9.20
Universally recognised symbols

The symbols (Figure 9.20) designating use by gender, accessible facilities and provision of baby changing facilities are adopted internationally, albeit with slight differences in design. Even with stylistic differences they are recognisable and support our identification of facilities ensuring appropriate use. Other signs place restrictions such as 'keep off the grass' which are self-explanatory, as are age restriction signs for play parks, these offer guidance or are advisory in nature. Not all signs need be as direct as these, increasingly humour is used to convey information or attract attention, this following a trend set in advertising. In the context of this investigation the efficacy of signage in promoting use of a green space supported by the findings of Tester and Baker (2009).

It is not always necessary to create overt signs or enablers, this in itself may be off-putting to some. Highlighting a play park as suitable for those with additional needs may then imply it is only for this user group – although CSS2 has not had this issue; used by a wide range of abilities. Subtle enablers can be effective in indicating how an area should or should not be used. An illustration of this can be seen in a conference centre where a ground floor reception area leads to other floors via a large spiral ramp. The circulation area on the ground floor surrounds the ramp. In use it became apparent some delegates were not aware of the proximity of the ramp to the routes to ground floor facilities, some walking under the descending ramp and knocking their heads. Applying yellow and black hazard tape to the underside of the ramp did not resolve the issue, therefore an additional solution was required. The addition of astro-turf and 'keep off the grass' signs in the area directly below the ramp (Figure 9.21) resolved the issue, delegates adapting their behaviours in response to the cues more usually seen in outdoor environments.

Figure 8.21 Cues preventing delegates walking under the descending ramp

In the play park context, a combination of overt and subtle cues can be utilised to provide indicators sites are accessible to a wide range of users. Signage such as that at CSS2 which includes images, widgets and braille (Figure 9.22) clearly suggests this facility is designed for those with additional needs as does the inclusion of specialist equipment (Figure 9.23).

Figure 9.22 Sign CSS2

Figure 9.23 Specialist roundabout CSS2

At sites without this focus the inclusion of marked accessible parking bays in adjacent car parks and access paths within the play park (Figure 9.24) supports use by those with impaired mobility and are subtle cues which can be recognised by all users.

Figure 9.24 Access path CSS8

These cues, although helpful, will not address the wider acceptance play parks are for those who do not require support to access play and for physical activity (Wood, 2017). Societal attitudes are altering regarding accessibility and inclusion, however there is still progress to be made (Merrells et al., 2017). Altering attitudes regarding play park provision could be promoted through the use of additional cues and information.

Inclusive Play (http://www.inclusiveplay.com/), a company providing accessible equipment, promotes accessible play parks through the installation of signs (Figure 9.25) and an online map (Figure 9.26). These assisting those with disabilities or their carers in identifying play destinations which offer appropriate access and equipment. For inclusion in this scheme there is a self-assessment form which is submitted to Inclusive Play for evaluation and feedback; the assessment covering access, rest and recuperation, different types of play and sources of information. Over the course of this investigation this self-assessment has been refined and adjusted, in many aspects mirroring the findings and direction of this research. Examples of a section of their early tool and the current version are included in Appendix G. The revised tool offering information which supports the user to provide additional details regarding aspects of provision.

Figure 9.25 Inclusive play park sign **Figure 9.26 Inclusive play park map**
(Source: Inclusiveplay.com, 2015)

Whilst this is a valuable resource it can be argued that in promoting accessible play for those with disabilities the focus on meeting the needs of one user group is positive discrimination, and therefore does not support the concepts of inclusion and integration. As evidenced in the literature review and in the evaluation of the case study sites, the creation of play parks with play value for all users is not a universal provision. Consequently, resources supporting design and choice of equipment should address the needs of all users, with signage and information demonstrating how a play park provides play value, in addition to highlighting accessible and inclusive play. The play value infographic developed for this investigation, supported by a revised PPET, have the potential to support not only self-assessment, but also the identification of areas for development without a reliance on external agencies to resolve issues or resolve gaps in provision. Evaluation of self-assessment forms by those responsible for providing play parks also promotes understanding of how to provide play value; promoting discussion and reflection. Additionally, universal adoption of an infographic illustrating both play value and accessibility would assist parents and carers of children of all abilities in considering which play parks support the play preferences of their child/ren, the concept of the play value infographic providing an option, Figure 9.27 illustrating how this could be presented.

Figure 9.27 Play value infographic as a site-specific indicator of play value

Use of a universal infographic illustrating both play value and inclusive play options provides an easily recognised and understood enabler which indicates a play park is for use by a wide range of abilities. This, working in conjunction with other physical cues including accessible parking bays, pathways and items of equipment, promoting inclusion and recognition that those with additional needs are supported within mainstream play provision.

9.8 Development of the play value infographic

Presentation of results from surveys and interview data requires the use of a number of methods as written descriptions, supported by images, cannot convey some results as effectively as visual representations through tables, graphs or infographics. This investigation considered the information gathered through participant interviews alongside survey data collated from the PPET. These two data sources were used to aid understanding of the decision-making process, and its effectiveness in achieving the commissioning goals set by case study sites. Feedback from both academics and those involved with play park provision indicated the PPET paperwork had identified appropriate information which should be gathered when reviewing provision. The validation process was completed concurrently with the main investigation, this did not enable the infographic to illustrate the play value data to be shared as this had not been finalised at this point.

The challenge for this researcher was to identify an appropriate method to illustrate the PPET data combining both the play value and accessible equipment results. Graphs and tables were considered but the resulting representations lacked clarity. Presenting the information separately provided the clarity sought but this disconnect, in this researchers' opinion, implying these are two discrete areas of consideration increasing barriers to integration. This a negative approach, rather than emphasising how effective equipment selection and placement can provide high levels of accessible play with play value.

Of the data presentation options available through the use of Excel spreadsheets, pie charts were identified as most appropriate for illustrating the presence or absence of a play option but did not then allow for the highlighting of accessible play. Appendix H illustrates the stages of the development of the play value infographic. The infographic illustrating two play options was shared with two participants in the validation process (1 council employee 7MN-EM-BR, and 1 equipment company representative 2LG-SW-CJ) with feedback at this point positive, comments highlighting both the clarity and visual impact of the infographic and suggesting this would be a method which could be employed to illustrate play value at play park sites. Linking a revised PPET with the infographic would provide an effective method for self-evaluation by providers clearly illustrating the findings of evaluations and identifying gaps in provision. Additionally, as illustrated in Section 7.2.9, the infographic has the potential for display at play park sites providing this information in a clear and easily interpreted infographic.

9.9 Accessibility, usability and inclusion

The need to facilitate access to, and play within, play parks has become of greater interest to academics, references to this aspect found across a range of topics, and noticeably an increase in the number of papers, dissertations and other publications focusing on this theme (Burke, 2012b; Bedell et al., 2013; Perry et al., 2017; Siu, Wong & Lam, 2017). Early researchers such as Stout (1988), Barbour (1999) and Prellwitz, Tamm and Lindqvist (2001) highlighted the limited opportunities for children with disabilities to access play in play parks. These studies paving the way for more recent investigations. The DDA (1995), established the principle in law that providers of

facilities and services must make reasonable adjustments to promote access; this responsibility was retained in the subsequent consolidation of anti-discrimination law in the Equality Act (2010). Rights under these acts support increased awareness of Disability Rights, therefore it is not unexpected participants in this investigation had considered accessibility and inclusion when creating or refurbishing their play parks. The word frequency data has a range of 22 for reference to accessibility and inclusion, the lowest frequency at CSS1 a play park catering for the needs of children with disabilities, especially those with challenging behaviours. Given this focus and the adjustments made to support access a presumption is made that the need to emphasise consideration of access and inclusion was not required due to the ethos underpinning the provision.

It would not have been unreasonable to have expected a difference in frequency between participants in a formal role (council employee / Parish Councillor) and volunteer-led projects, as those in formal roles are expected to have undertaken training on equality and diversity to ensure they understand and act in a non-discriminatory manner. However, this is not the case; CSS2 and 3, volunteer-led projects promoting access for disabled users understandably highlighted this area of provision but word frequency counts for CSS4 and 6 are at a similar level indicating a comparable level of awareness. For CSS4 the reason for this high level of awareness was not apparent from the interview data nor linked to participant's backgrounds; but for CSS6 recent direct experience of the difficulties children with disabilities face understandably brought an awareness of this issue across all areas of life including the provision of a play park. The participant for CSS7 included the highest number of references (27) to accessibility and inclusion; but advised she had recently been in discussion with groups supporting those with disabilities linked to a current project. This had 'increased my awareness even more as I go around all my play parks' (7MN-EM-BR), this newly acquired knowledge not yet assimilated into practice.

Decision-making around selection of specialist equipment is an area where participants acknowledged additional support and information was needed. CSS2, 7 and 8 consulted special schools for advice, CSS6 a disability support group, and CSS5 utilised an online tool to evaluate provision. In two instances (CSS2 & 3) the lead instigators of the

projects were parents of children with disabilities and utilised their lived experiences within their selection process. There was limited awareness of written sources of support or information; none of the participants consulting resources such as Play England appearing not to be aware of them. Instead participants reported that they relied on information from supplier websites or sales reps. The literature review for this investigation identified a number of available resources. It is acknowledged that information in these could result in difficulties in equipment selection either through the implication that provision must meet the needs of all disability groups and incomplete information or advice. An example of this advice provided by Keys (2017) in Play & Playground Magazine who suggests '*incorporate static-free slides for children with cochlear implants'*. Use of these electronic medical devices has increased (Raine, 2013), however this advice might imply this is an essential component of slide provision. Wired (n.d.), a website supporting those with, or considering cochlear implants, provides additional information, advising that historically static electricity had been reported as causing damage to devices, but newer designs are more robust. More importantly this resource includes information advising the construction material of the slide chute is key. Plastic slides build up higher levels of static than metal, therefore selecting a metal design will support use by those with cochlear implants. Reviewing catalogue listings these concerns are not listed as a consideration in the specification for plastic slides. The lack of clarity in identifying information regarding accessibility and inclusion and the limited detail provided in some resources makes addressing this aspect of provision more difficult.

Participants knowledge and understanding of disabilities, and the meaning of the terms accessibility and usability varied and reflected in the resulting provision. The evaluation of provision at CSS2 identified the play park as being the most accessible and inclusive of all the case study sites. The process of site design and equipment selection was directed and influenced by 2LG-SW-DW's lived experience as the parent of a child with disabilities, and through her academic investigation of the process of commissioning this play park. The utilisation of lived experience as an evidence base for the selection of equipment and play park design influenced provision at three other case study sites (CSS1,3 & 6). In each of these sites equipment selection was led by the consideration of

the needs of specific children; this close relationship between identified need and provision ultimately limiting the scope of play offered.

Supporting adult access to play parks

Whilst play park research has focused on meeting the needs of children requiring additional support to access play (Burke, 2012b; Bedell et al. 2013; Perry et al. 2017; Siu, Wong & Lam, 2017) a noticeable difference observed in the interview data is consideration of the needs of adults supporting children's play in these areas. The need to promote access for all users was focused on three areas of provision – car parking, paved access to the play park, and seating within it. These provisions do support access by children, but are considerations centred around meeting the needs of the adults facilitating play for younger children.

The decrease in children's independent mobility resulting from increased use of vehicles (Nansen et al., 2015) affects travel when accessing play opportunities. All participants considered car access important to promote use; off-road parking identified as preferable, but not always achievable, due to site and budget restrictions. At CSS3, 6 & 7 the distance between car parking and play park entrance is listed in Section 8.6 and highlighted in the aerial images of the case study sites. For CSS1 and 2 the presence of parking was key to the provision of accessible play facilities, described as an 'enabler' for parents or carers who would not necessarily be able to use public transport with their child. In both instances the car park provision was not directly adjacent to the play equipment area but was linked by a pathway facilitating access. For these two case study sites the car park was considered a safe environment for children who lack road safety awareness. This child-centred aspect was not mentioned by other participants who focused on the need to support users who chose to use cars to access their site. Where dedicated car parking was not available this was acknowledged as a detriment to provision, and a possible source of conflict for those living nearby (CSS6). Without the space available to provide this facility a pragmatic approach was taken at these three sites to focus on the play park provision as the lack of parking was a long-standing issue which local users were aware of. Even where off-road parking is available this does not remove the hazards related to shared spaces. At CSS8 8DT-EM-BF

expressed concern that the restricted budget had not enabled the installation of higher fences limiting direct access to the play park. This especially considering a recent incident where a car had left the highway, entered the car park and crashed. This accident was due to the drivers' ill-health but for 8DT-EM-BF demonstrating the dangers of using the car park as an access route to the play park (Figure 9.28).

Figure 9.28 Open access with step-over fencing (CSS8)

Although pathways promote site use for those with mobility impairments the results from this investigation indicate this was considered a high-cost provision. Whilst the benefit could be appreciated for users including 'mums with buggies' (CSS4) and 'older folk using scooters' (CSS8), provision of pathways within the play park was 'something to be compromised on' (CSS8). Awareness of obligations under the Equality Act (2010) offers the opportunity to challenge this, but only CSS4 had considered this option to strengthen the case for installation of a pathway. When considering compromise to support access CSS8 provided paved access to items considered 'accessible', and to the zone with equipment for younger children presuming this would have a higher use by adults facilitating play for young children still requiring buggies. Integrating hard surfaces into play activities through the inclusion of colour or pattern, an approach taken at CSS5, and CSS6 where the pathway links to the castle theme representing a moat (Figure 9.29), may support provision as expenditure on play is viewed more positively than 'costly hidden provision' (7MN-EM-BR).

Figure 9.29 'Moat' pathway (CSS6)

The third aspect primarily for adult use was seating. Two sites did provide seating specifically for children, CSS1 with smaller proportioned benches and CSS4 with inset railway sleepers. Ensuring seating was installed within play parks was in line with advice, such as from Play England (2008) and Playworld Systems (2013), to provide somewhere 'to sit and supervise whilst children play' (5YM-N-PH). The position and type of seating given a lower priority than the choice of play equipment, sites opting to install limited design options; typically park benches of uniform height and picnic tables. Location of these in smaller or more open sites may not require a consideration of sightlines. In larger sites and those with modular units with enclosed areas the need to position seating to maximise supervision is recommended. At CSS5 the need to replace a large modular unit enabled them to address this through an alternative design, but the impact of equipment and planting on sightlines recognised as one which could not fully be resolved 'over such a large area' (5YM-N-PH), an issue which is further explored in Section 9.6.

Lack of child-specific seating provision evidences the low level of recognition that children may become fatigued through active play, therefore if unable to use adult-sized seating they will either use play equipment or sit on the floor. These two options can be considered appropriate but occupying equipment could prevent use by other children possibly leading to conflict. In the case of sitting or lying on the ground, this option may be difficult for those with restricted mobility or range of movement and those who require assisted transfers. Variety of seating design types promotes access for users with a range of abilities who may require lower bench heights, increased back support, armrests, or who are unable to access tables with 'step over' benches. Advice is offered by Inclusive Play that 'incorporating seating is important… for children who need rest and respite, for elderly carers and to allow parents and carers the opportunity

for "soft" supervision so kids can play independently and safely.' (InclusivePlay.com, 2018). Seating to support social activities is discussed in Section 9.6; also considered for its impact on the adult use of play park sites such as facilitating picnics, use by family groups and, in the case of CSS4, use by pre-school groups led by play leaders. Reviewing the literature identifies carpark facilities, pathways and seating as a standard provision within play park provision, but these aspects are given little attention in comparison with choice of play equipment and the promotion of play. Where discussed focus is on the support offered for adult use of play parks, rather than on the impact of non-play equipment on how and where children play, and support for recuperation after vigorous activity.

While children require supervision or assistance during play adults are key to facilitating visits to play parks. This is not an area investigated in great depth, the limited literature reflecting this. An area where adult presence in play parks has been investigated is in supporting and facilitating play for children with disabilities; the need for, and impact of, adults recognised (Fernelius, 2017). In contrast, participants at all case study sites alluded to the needs of adult users, considering the provision of pathways leading to sites as a support for those with pushchairs, and for CSS8, users with mobility scooters. Seating was primarily considered support for adults supervising children who did not need assistance during play, although the introduction of picnic benches at CSS4 was intended 'to promote family gatherings' (4A-EM-PW). The general focus on play equipment being solely for use by children neglects to consider a number of factors. These include the need for adult facilitation for some younger children and those with disabilities, or for those who require adult presence whilst they gain confidence. Additionally, for some adults with disabilities cognitive development is delayed, meaning their preference for playful physical activity remains best met in a play park setting. This need, and for adults to accompany some children is recognised at CSS2 where equipment was selected to allow 'use by adults as well as children' (2LG-SW-DW).

Supporting play for children with disabilities – interview data

The need to support access to play parks for children with disabilities was recognised by all participants linking this with the DDA (1995) rather than the Equality Act (2010). This awareness appears to have no impact on planned equipment provision referred to in discussions such as at CSS8 (in 2017) about a pathway from the play park area. The agenda for a parish council meeting listing an agenda item as:

> *'Footpath: To consider and resolve installation of a Disability Discrimination Act 1995 (DDA) compliant footpath from the recreation field to the pavilion'.*
> (Metheringham Parish Council, 2017)

The awareness of the need to support play for children with disabilities and the benefit this provides (chapter 2) did not translate to the universal provision of accessible play parks, echoing findings from other investigations including Yantzi, Young and Mckeever, (2010) and Ali Alkahtani (2018). This is found in the public inquiry by Sense (2015), their report Making the case for play (2016) advising *'Despite clear duties in the Equality Act 2010, 51% of children had been intentionally excluded from play opportunities by providers of play'*. The three case study sites (1,2, & 3) with a stated intention to provide accessible play opportunities each included items of play equipment selected to provide additional support including supportive swings, accessible slides and roundabouts. Additionally, CSS1 and 2 included pathways within their sites leading to and around items of equipment, and seating areas with adjacent space for wheelchair users. This level of provision was also found at CSS5; the play park's status both as a destination park attracting high numbers of visitors from outside of the local area, and as a local facility, underpinned the decision to provide a wide scope of activity and access options. This achieved without specialist items of equipment installed.

The interpretation at other case study sites varied, all had some play activities which were considered accessible. That is, simple to operate and accessible for the majority of users with physical disabilities; but the piecemeal approach to play park design and lack of pathways isolates these items. Without suitable access routes any item of equipment, including accessible designs, remains out of reach for many users, an issue noted by 5-VG-N-JL. All participants were aware of the availability of specialist

accessible equipment, but where the play provision was considered as 'general use' rather than to promote access these items were considered too 'niche' (4A-EM-PW) and expensive (5YM-N-PH). Understanding of which items of equipment could be described as accessible and inclusive varied with 8DT-EM-BF describing the choice of a Tango swing designed for an adult or older child to use in conjunction with a toddler as 'accessible', this equipment requiring the user to have both the ability to sit unsupported, and to step over and straddle the swing seat.

The case study sites considering their provision as general use rather than to promote access for those with disabilities (CSS4-8) did not use accessibility and inclusion within their criteria for equipment selection. Although accessible items of equipment such as basket swings and level access roundabouts are included, these were selected for aesthetic reasons, their popularity at other sites, or proposed by the equipment supplier. The unintentional selection of accessible or inclusive items of equipment is mirrored by the inclusion of items where the design is such it restricts users through the high level of physical ability required to use the equipment.

9.10 Choice of play park equipment / play park design

Understandably, in the literature and participant interviews, design and selection of fixed items of play equipment are considered the most important aspect of provision. Within the literature there is a large body of research and information regarding safety aspects and risk management linked to equipment design and positioning (Tovey 2007; BSI 2008; Spiegal et al., 2014; RoSPA, 2015). Risk management aspects were recognised by participants; but did not feature as a key theme in the interview data. This possibly because the focus of this investigation was on the process of creating a play park and associated decision-making. As a result, the review of the interview transcripts identified risk management strategies were referred to with a lower frequency than aspects linked to decision-making and design. Participants advised they had confidence in the relevant standards for design and construction of individual items. Happy to rely on the expertise of equipment suppliers and installers to ensure the fixed items of equipment were placed safely, with clear zones around them and appropriate surfacing under and around. Two items of equipment were identified as higher risk and were

excluded from selection even with the guidelines to aid safe installation; trampolines (CSS1 & 5) and the hexagonal multi-swing (CSS6). Both of these items installed at other case study sites whose consideration of the risks involved resulted in a decision that they were satisfied the benefits outweighed the identified risk.

When selecting items for inclusion budgetary concerns were a deciding factor at all case study sites. Individual items can be costly, and ground-works required for installation a hidden cost, both in terms of money spent and in the final appearance of the play park; participants from CSS4, 6, and 7 each commenting on this. A need to demonstrate value for money appears to drive the focus on installing fewer, larger items of equipment as these provide visual impact, showing communities where monies have been spent. Given the cost of a mid-sized play park, such as at CSS6, can exceed £100,000, this need to evidence spend is understandable, but also achieved their desire to provide a play park with impact (6PG-E-GB). An additional influence may be the reliance on equipment suppliers to design the play park, larger items of equipment providing a visible advert for their products, and possibly a higher profit margin. The support of design professionals is in line with advice in Design for Play (Shackell et al., 2008), which advocates the involvement of designers in the creation and implementation of projects. However, this emphasis on large items is at times at the expense of smaller items such as interactive panels or auditory installations as 'these can be added later' (8DT-EM-BF). In the case of CSS7 this occurred, recent developments include the addition of freestanding activity panels, however, this play park is situated in a city where there is a (limited) budget for ongoing development of play facilities (7MN-EM-BR). The practicalities and drivers for play parks such as CSS4 and 8, where the original instigators of the development have ended their involvement, may mean their intention to later add smaller items to increase play value is not achieved. This approach potentially reduces play options for those unable or unwilling to use large items of fixed play equipment.

This focus on providing large items of equipment, may in part be responsible for the lack of items accessible for those with impaired mobility, or with additional needs, impacting on the usability and accessibility of a play park. The perception and interpretation of accessibility and usability across interview participants highlighted the

different levels of comprehension of these terms and approaches, which in turn affected equipment selection. Case study sites with an ethos of providing accessible play had, within the constraints of their budgets and sites, tried to provide as wide a variety of play opportunities as possible. Of the remaining sites CSS5 provided the highest number of play options, this due to the size of the play park and the available budget, rather than through a specific intention to provide accessible and usable play equipment. Whilst CSS2 demonstrates how an accessible and usable play park can be achieved through the inclusion of specialist equipment other case study sites, such as at CSS3, demonstrate with careful equipment selection it is possible to achieve a similar outcome. Reviewing play equipment catalogues demonstrates how the redesign of 'bowler hat' roundabouts to improve safety results in more accessible, usable products now accepted as 'standard' rather than 'specialist' provision (Figures 9.30 to 9.32). This unintentional benefit also reflected in the introduction of net or nest swings as alternatives to the traditional toddler or flat seat swings.

Image removed due to copyright restrictions

Figure 9.30 Bowler hat style roundabout

Figure 9.31

Figure 9.32

Roundabout designs with increased accessibility and usability

It must be acknowledged that the introduction of new designs does not always result in increased accessibility and usability. The see-saw installed at CSS3 (Figure 9.33) functions in the same way as traditional designs, moving vertically in a linear plane on a central pivot point. This design requires more coordination, balance and postural control to use in contrast to the installation at CSS8 (Figure 9.34) which provides the same movement experience, but with more supportive seats and the option to lie, or sit with support, on the central section.

Figure 9.33 See-saw CSS3

Figure 9.34 See-saw CSS8

The provision at CSS3 may appear more exciting or 'modern' but limits user groups, not only through physical ability, but also through cognition as the design offers few visual cues to promote use. This aspect of the design is in line with concerns highlighted by Burke (2009) as a barrier to play park access.

This unintentional creation of barriers is, in some instances, a case where a new 'design' does not add value to the item; simply a 'modern twist' on the 'norm'. This is illustrated by the freestanding slide at CSS8 accessed via a ladder (Figure 9.35), however this new design lacks handrails. Also, rungs are tubular, widely spaced, angled and uneven with the structure flexing during use. Users therefore require a high degree of physical ability and confidence. The slide installation at CSS3 (Figure 9.36), a traditional design, offers more support but the play experience in both instances remains the same. The single slide at CSS8 offers a higher level of challenge but has not been balanced through the provision of an alternative more accessible option.

Figure 9.35
Access ladder for freestanding slide CSS8

Figure 9.36
Traditional design CSS3

The equipment selected at case study sites surveyed for this investigation can be described as 'traditional', even when designs such as that in Figures 9.35 and 9.36 are installed. Unexpected elements falling outside of this pattern can contribute to the appeal of a play park. Ideally these would be play elements but the rocket bin at CSS2 (Figure 8.55 p222) add a sense of fun to a site. An interactive game board provides a social activity (Figure 9.37), and the cutlery 'seating' (Figure 9.38) a fun installation adjacent to a café and play area.

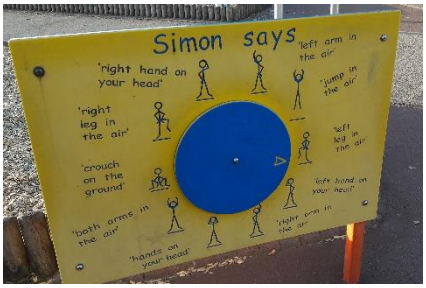


Figure 9.37 Interactive game board

Figure 9.38 'Cutlery' seating

Alternative installations are not always successful, Figures 9.39 and 9.40 are set within a play park designed to provide sensory stimulation rather than physical play activities. Figure 9.40, a 'singing stone' provides auditory feedback, a sensation similar to placing a seashell against ones' ear, and the 2.5 m high granite stone (Figure 9.41) can be rotated with the slightest pressure.

Figure 9.39 'Singing' stone

Figure 9.40 Rotating stone

The singing stone lacks cues indicating its use, adults needing to advise and assist children to benefit from its function. The rotating stone is adult-sized and could, like the singing stone, be mistaken for an art installation. Figure 9.41 is also a rotating stone but its size (approx. 1m high) child-sized, and the design and texture (Figure 9.42) in more appealing, inviting children to touch it causing it to rotate without requiring adult intervention.

Figure 9.41 Apple rotating stone

Figure 9.42 Textured surface finish

Data from the participant interviews does not provide an understanding of why there was a reliance on traditional equipment at case study sites. One possibility being the reliance on main-stream catalogues and company reps, and (or) these were not offered as options during consultations. Alternatively, it may be that these were not perceived as providing as high a level of play value as traditional items of equipment. Frequently alternative designs such as those illustrated above provide sedentary or passive play. Equipment such as the iPlay (Figure 9.43); a solar powered interactive electronic installation allows users to select different game options. These testing agility and

timing, and provides individual or social play, users can challenge themselves or play against others.

333

Figure 9.43

iPlay installation

Balance activities are provided at case study sites through trim trails, balance beams and bridge installations. Increasing the challenge by requiring this skill to be mastered through a more active installation can be achieved with equipment with a sprung base (Figure 9.44). Challenge can be further increased through equipment with a mobile base requiring balance, core and upper body strength (Figure 9.45)

Figure 9.44

Spring based balance beam

Figure 9.45

Active balance play equipment

9.11 Play and play outdoors

Play parks are areas designated for children to play in, researchers including Prellwitz and Skår (2007), Burke (2012b) and Perry et al. (2017) have investigated aspects of play within this environment. The transcription of the semi-structured interviews with participants provides an opportunity to consider the information through evaluating the content via word counts, the implication of this being that participants would mention more frequently the topics of particular importance to them.

As the purpose of play parks is facilitating play, it is not unreasonable to hypothesise the term ***play,*** or its derivatives, would feature highly in the word frequency analysis of interview transcripts with those with responsibility for play parks. Content analysis of interview data through Nvivo10© utilising a word frequency query demonstrated ***play*** as an activity was mentioned with low frequency illustrated in Table 9.3.

Whilst there is a numerical range of 11 (0 – 11 references) to ***play*** for participants the researcher range is lower at 6 (5-11). The highest frequency reference to 'play' for both researcher and participant in both instances in the interview at CSS6. There does not appear to be a link between the number of references to *play* by the researcher and its use by participants. This indicates that the researcher did not influence or lead the participant to make reference to 'play'. Review of the transcripts did not offer a clear explanation as to why the term ***play*** did not feature as a recurrent theme even when mentioned by the researcher. One explanation may be participants considered this a 'given', therefore not requiring an overt reference. The interview schedule was participant led to elicit areas considered most important, therefore participants may not have thought it necessary to mention play in an interview concerning play parks. Additionally, references were made to items of play equipment and different play activities, and the participants clear in the purpose of the facilities they are responsible for.

Case study site	Participant	Researcher
1	1	7
2	4	7
3	4	5
4	4	6
5	1	6
6	11	11
7	6	7
8	0	6

Table 9.3 Frequency of reference to *play* (and derivatives)

Following this, content analysis of the words ***child*** and ***adult***, derivatives and synonyms, was completed. The purpose of this was to compare the frequency participants referred to the end users of play parks and to see if this, like the term *play*, was viewed as obvious. Additionally, the contrast between the results indicates the balance of importance placed on the involvement of these age groups during the project

In regard to the references to the term ***child*** the range for participants was 36, (lowest number 8 (CSS5) and highest 44 (CSS2)), and for the researcher the range was 47. The lowest number of uses found in the interview transcript for the participant at CSS5, the highest at CSS4. In all interviews the researcher referred to ***child*** / ***children*** more frequently than participants. However, in reviewing the context some references were made to confirm or clarify a statement made by the participant in response to a researcher question such as the example below and therefore may not reflect a greater focus by the researcher. These clarifications remaining within parameters of the interview schedule, reflecting participants comments.

> **Researcher**: '*Are the local **children** involved*?'
>
> **2-PP-SW-MG**: '*Yes very much so, we wanted as many **children** involved as possible. We saw them in all the schools, even the special schools, and still have **children** involved now with projects like the planting'*

Researcher: '*So involving **children** is an ongoing approach?*'

2-PP-SW-MG: '*Yes, very much so'*.

This mirroring was used to confirm understanding and clarify points raised was also identified in references to ***adults;*** additionally, the researcher's word frequency count was elevated through reference to additional roles whilst making points or enquiries, for example '*Did you involve **parents** and **carers** with your equipment choice?*', both terms counting towards the word frequency total (Table 9.4).

Case study site	**Participants Child (+ synonyms)**	**Researcher Child (+ synonyms)**	**Participants Adult (+ synonyms)**	**Researcher Adult (+ synonyms)**
1	28	36	41	22
2	44	49	28	25
3	9	17	19	17
4	36	59	26	9
5	8	12	13	15
6	10	36	33	31
7	12	30	55	45
8	14	19	16	16
Total	161	258	231	190

Table 9.4 Frequency of reference to *child* / *adult* in interview transcripts

The difference in frequency between the mention of ***child*** and ***adult*** by participants, with ***adult*** mentioned with higher frequency by participants could be considered as reflecting the approach towards consultation and participation, discussed later in this section. The word frequency query also included gender-specific terms such as *boy, girl, lads, brother* and *sister*. It was of note across all the case study interviews gender-neutral terms were used most frequently (child, children, kids, siblings) with 1-BS-SW-MP (CS 1) referring once each to 'brother', 'sister', 'boy' and 2-PP-SW-MG (CS 2) referring to 'boys' three times. Whilst gender was not a focus of this investigation it is

refreshing there was no overall gender bias by participants regarding who would utilise the play park or enjoy active outdoor play activities. However, the investigations by Colabianchi et al. (2011), Karsten (2003) and Bocarro (2012) suggest some consideration of gender differences is indicated to ensure use by both boys and girls.

These word frequency searches may be indicative of the participants' approaches but cannot be considered in isolation requiring the context of the discussions to fully link intention and outcomes.

Benefits and disadvantages of play outdoors

The health benefits (Clements 2004; Brennan-Olsen, Rodda and Duckham, 2017; Sandseter & Kennair, 2011) and disadvantages linked (Gredilla et al. 2017; Adelson et al., 2017) to play outdoors are well supported by the literature; play in play parks considered as part of the wider discussions and investigations. Neither benefits nor disadvantages of play outdoors appear to be considered key aspects of provision by participants, as there was limited mention of these in participant interviews. Beneficial aspects of play were mentioned by participants from three case study sites but only a single participant (CSS7) referred to both a benefit and disadvantage, the latter relating to injuries resulting from falls from height. Participants from CSS1 and 2 linked the benefit of playing outdoors with facilitating play for children with disabilities in a play park, rather than benefits gained by all users.

> 1-BS-SW-MP*: 'a big part of it is about encouraging mobility**...**but the other things encourage the children to get out of their wheelchairs'*
>
> 2-PP-SW-MG*: 'Bringing the whole family here they can all be active together, even the disabled child'*
>
> 7-NR-EM-SP*: 'I suppose you could always look at that, as if a child is running about they are getting their exercise that way'*
>
> *and*
>
> *'you know we can have accidents where children have fallen on the safety surface, they injured themselves, falling from heights'*

Concerns over children's activity levels and incidence of child obesity have frequent mentions in academic literature (Frost 2010; Tremblay et al., 2010), and, are more accessible for case study participants in national media (BBC News, 2017; Bosely, 2017). This aspect of childhood was only alluded to by 4A-EM-DH, and not directly linked to active play.

Not all disadvantages in this setting are linked directly to play activities, Otero et al. (2017) and others have highlighted concerns linked to the incidence of bacteria present in animal faeces. This had been raised with 6-WH-E-AR by a parent, however a pragmatic approach was adopted '*cats; there's also hedgehogs and foxes, there is going to be poo whatever',* and a decision taken to retain a sandpit within the site design. Two other case study sites contained sandpits, neither considering maintenance of cleanliness an issue. To minimise the risk of infection CSS4 created a dog walk area 'fencing the dogs and their owners in' (4A-EM-PS), and CSS8 had discussed how to minimise issues in the play park area as it also set within a green space popular with dog walkers. Similar concerns arise in relation to hazards linked to drug use, especially discarded hypodermic needles, and litter especially broken glass, mentioned in the literature as hazards identified by parents which those responsible for play park design and provision had responded to (Oke & Middle, 2016). These concerns were recognised by all participants but managed through maintenance schedules. Only CSS2 advised there had been a high incidence of anti-social behaviour which had been addressed, and current issues were minimal in comparison. No concern over the impact of air pollution was raised by participants, even at CSS2 and 7 which are closest to roads with high volumes of traffic. It is possible to reduce the impact of air pollution through living screens (Farnham, 2018) however this an aspect of provision which had not been considered. Similarly, the position of CSS4, adjacent to fields, had not led to the consideration of the health implications linked to crop treatments and pollen.

Participants' acceptance of play in play parks as beneficial was implicit rather than overt. Volunteers became involved due to a belief these are key local facilities for communities. Local government employees were tasked with creating and managing their portfolio of play parks, a duty arising from the value perceived by the communities they serve, as well as statutory obligations. These are superficial approaches not

considering the nuances of provision in relation to either benefits or disadvantages, accepting play outdoors and in play parks at face value; something participants enjoyed in childhood and therefore are required today.

Challenge in play

The importance of delivering challenging play spaces enabling children to take risks in safe and managed environments is a fundamental aspect of play park provision (Metin, 2003; Prellwitz & Skår, 2007). This need increasing with the changing nature of children's play which has become restricted by organised activities, limited by parental concerns, and increasingly more sedentary with use of digital technology.

All participants alluded to standards and regulations applicable to play park provision; these related to managing risks rather than the promotion of safe risk-taking behaviour. Concerns relating to the provision of opportunities for children to challenge themselves and take risks, and the impact of these on play choices were raised by participants at four case study sites (CSS2,4,6 & 7), their concerns reflecting those in the literature. 4A-EM-DH considered the current generation of children to be *'fetched and carried everywhere*' impacting not only on their health but also on life experience. She reflected as a child she had more freedom

> 4A-EM-DH: *'getting on a train into the middle of London, or going to Kew Gardens at 10 and 11 years old on my own with no fear',*

and '*decent play parks*' were what was required to allow children the freedom to explore. 4A-EM-PW recalled as a child she loved the speed of '*the slide and swinging so high the chain went slack; terrifying but fun*'. This need to provide challenge was also recognised by parents including 8DT-EM-SC, a parent of children aged 8 and 10, who expressed disappointment with the zip-wire installed at CSS8, as '*it's for little ones, no challenge at all, much too safe and smaller than others elsewhere'*. This item of equipment was identified by 6PG-E-GB as exciting; hopeful this could be incorporated on to the bank adjacent to CSS6 to '*increase the fear factor safely',* expressing disappointment this could not be achieved.

Reflecting the focus in the literature challenge was seen in physical terms with height, or the illusion of height, identified as a key provision (2LG-SW-CJ), and 7MN-EM-BR advising without elements of challenge linked to height it results in '*a boring play park … then they will go and play elsewhere in the trees*', a higher risk activity. This was also highlighted by 2LG-SW-DW who advised many of those with disabilities saw life from ground level only, missing out on experiences non-disabled children can access. To resolve this an accessible modular unit commissioned so

> *'you can push them up the ramps and they can look out and watch, and feel that they are on top of what is going on below'.*
>
> (2LG-SW-DW)

Using height to compare and contrast case study sites, three items of fixed play equipment offer this challenge; slides, climbing frames and modular units. To enable children to develop abilities and to challenge themselves through trying the same activity with differing levels of challenge (height), play parks should have more than one option, each designed for a different ability level. Taking slide units (freestanding or combined in a modular unit) as an example, three case study sites offered one option excluding some users, either due to skill level or size, thus limiting the ability to develop capability through progressively more difficult challenges.

For 2LG-SW-DW the challenge (or sensation of challenge) is not just physical; recognising for some the experience of entering and interacting within others in a play park can, for those with learning disabilities or Autism, be a challenge, and recounting her observation of children who:

> *'will peer in the gate or through the fence, and then they will get a bit bolder they'll come just inside the gate, and then visits and visits later they will then maybe go sit on the bench and then gradually they will maybe go and have a swing. And then you know, hey presto, you can't get then off the equipment'.* (2LG-SW-DW)

2LG-SW-DW's approach to this concept is wider, identifying different elements of challenge within a social setting, such as experiencing an unfamiliar site or the need to interact or cooperate with others who are not known to them. The challenge of these provides similar physical manifestations as experienced through the experience of height, speed or balance activities. This process is acknowledged in the literature but is

most frequently linked to the development of social skills and independence; rather than placed in the context of challenge and the experience of physical symptoms including a rapid pulse and increased respiration rate, these more commonly associated with an adrenaline rush experienced when taking risks (Hess, Shannon & Glazier, 2016). Recognition of these as different, but relevant, challenges can be addressed through adult support, and through additional resources such as the site map at CSS1 and the widgets and website information for CSS2. These can be accessed prior to visits to reduce anxiety and aid navigation, thus supporting personal rather than physical challenges.

Without challenging play opportunities there are risks children will seek these elsewhere. Provision of equipment intended to offer challenge does not prevent this. Close to CSS8, with its multiple swing activities including a zip wire, a rope swing crafted from bicycle handle bars has been created in woodland (Figure 9.46). This illustrating how, without the necessary challenge available, children will create their own to provide play experiences perceived as lacking in the adjacent play park.

Figure 9.46 Rope swing close to CSS8

9.12 Summary

The results from this investigation have been discussed alongside the development of the PPET and play value infographic. The literature review provided a structure against which the data from participant interviews and grey literature could be considered and evaluated. The need to develop a survey form to enable data collection at case study sites required an iterative approach during which this researcher developed a greater

knowledge of play park provision and an appreciation of the complexity underlying this process. The different approaches to play park provision had similar strengths and weaknesses, all participants considering these facilities as key, enabling children to play in safe but challenging environments. Additionally, play parks were viewed as community assets, this reflected in the consultations completed by the majority of case study sites. The barriers faced by volunteer-led groups were in many instances experienced by council employees, however across all case study sites the planned schemes were achieved.

Reflecting the limited training available to support the selection and placement of play equipment, the understanding of how to create accessible, inclusive facilities with high play value varied between participants. This suggests that the development of tools such as the PPET and the play value infographic, alongside more easily accessible web-based information would support the provision of play parks which will meet the needs of all potential users.

Chapter 10 Conclusions

10.1 Introduction

This chapter concludes this thesis, commencing with a reflection on a family's access to play. Following this the research aim and objectives are re-visited and the conclusions from these presented. The contributions to theory, methodology and practice from this investigation are outlined following this. The chapter concludes with a consideration of the challenges experienced during completion of the investigation, limitations of the research, and opportunities for future investigations.

10.2 A family's reflection on accessing play in play parks

In a world where there are barriers to participation then determination and ingenuity can combine to facilitate play where there is a lack of accessibility, and usable play equipment. Families find resourceful ways to facilitate play integrating the needs and abilities of disabled children with their siblings. This is illustrated in this extract from a reflection provided by a parent:

> '*Parks locally have no accessible equipment at all. However, being unable to drive and having five able-bodied children and one full-time wheelchair user, we have to use the services available locally…It has been challenging to integrate G into play…she enjoyed going down the slide; this had to stop as we can't safely carry her up the narrow ladder. The roundabout has been more of a challenge as it doesn't have seating. [When] her supported standing became strong enough… G could access the roundabout. She absolutely screamed with delight…this activity became a family favourite. [We] became far more daring [as] the rest of the family rode the roundabout with G... I had noticed over the weeks how much stronger she had become…During the last week of summer…I took my hands away, and there was G hands in the air, pelvis still rested against the centre column, standing completely unsupported…it was amazing. I don't know who had more tears me or daddy.*

Life would be so much easier if the park was accessible, but we wouldn't have gone to such great lengths to integrate G and this magic moment would never have happened.
I hope this gives you an insight into the challenges families like ours face when trying to access recreational areas and the highs and lows these challenges bring'. BA (Mother of G).

This illustrates a number of facets within this investigation – the difficulties and limitations those with disabilities face when accessing play, the benefits of integration and socialisation, and how active play can impact on physical ability. Most importantly this investigation demonstrates how play in play parks can provide enjoyment even when the site or equipment is not accessible or usable.

10.3 Research aim and objectives

The aim of this investigation was to gain an understanding of the reasoning and decision-making process employed by those responsible for the creation or redesign of play parks. Examining how this facilitates the provision of usable, accessible facilities offering play value for all children. To achieve this aim six objectives were identified; these reviewed in turn in the following section of this chapter.

To investigate the importance and benefit of play, and in particular play outdoors, for children of all abilities

The evidence from the literature review supports the proposal, play, and in particular play in outdoor settings, is of value for children. Outdoor play has many benefits, the most obvious the development of physical strength and abilities. The benefits can be seen beyond those directly linked to the use of play equipment such as the impact on eyesight; increased focal length beneficial, reducing the need for glasses for those with normal eyesight and off-setting screen use. Beyond physical health, outdoor play can support positive mental health through contact with nature as well as from physical activity. Contact with other children promotes socialisation and development of skills such as turn-taking and negotiation which are necessary in adult life. Opportunities to take risks and face challenges are presented within play parks; hazards assessed and

minimised, supporting children to test their limits and abilities. This risk-taking encouraging self-reliance and reducing the dependence on others to guide actions and decisions.

The benefits of play have been established, however the review of the literature highlighted that not all aspects of play outdoors are of benefit. The reduced adult oversight places children in situations where they may be at risk of bullying or approaches from strangers. These concerns which, whilst valid, have taken on greater significance for parents and carers than the evidence supports, possibly due to the influence of media reports. The incidence of life changing physical injuries linked to play park accidents has reduced following the introduction of safety surfacing, and in the UK the adoption of European safety standards. That said injuries still occur, the pattern changing, with upper limb fractures more frequently reported. Play outdoors brings children into proximity with traffic and, as an activity where adult supervision is reduced as children mature, injuries can result from road traffic accidents. As with benefits of outdoor play there are subtle disadvantages which may not be immediately apparent, such as the impact of soil and air pollution, and sun exposure on the skin and eyes.

To compare and contrast the accessibility and usability of established play park facilities

Ensuring facilities are accessible to those with disabilities is a requirement under the Equality Act (2010), a previous investigation (Parker, 2010) identified the limited access to play parks in Lincolnshire for those with impaired mobility. This reflects findings in other investigations including those by Prellwitz and Skår (2007), Stanton-Chapman and Schmidt 2017) and Perry et al. (2017,) indicating this situation is not only found in the UK, but also internationally. The site surveys completed for the initial and main investigation confirmed that this situation remained. Few facilities increasing accessibility through installation of pathways between fixed items of equipment and seating suitable for users with differing needs. Surveys also considered other aspects of accessibility and usability, such as those supporting use by those with visual or cognitive impairments, including gated entrances and signage.

Reviewing data from case study site surveys highlighted areas of effective equipment provision as well as common areas where improvement is required. New designs of equipment and changing trends including low or level access roundabouts and net swings have supported play by a wider range of ability levels. Initial intention for installation of these items may have been to assist those requiring additional support but their popularity mean they are now considered standard provision. Trends influencing play equipment provision do not necessarily result in increased accessibility. Zip-wires are increasingly popular but do not offer accessible play for all. Some initial investigation and case study sites offered accessible play options through the provision of specialist items intending to promote accessible play. This investigation found more effective approaches to accessibility and usability were offering different play options for the same activity, such as different types of swings or slides with different access options. Providing graded choices for those with different abilities or needs enabling children to access play, build skills and increase abilities.

To examine the methods by which those involved with play park commissioning choose or influence the design of play parks

The interview data identified the methods utilised at case study sites to support their decision-making process; ranging from a nominated individual making independent choices to every option discussed at full council meetings. Participants advised that resources used to support decisions were identified through prior experience, equipment providers, and internet searches. The scope of these influenced by the level of works to be completed.

Where consultations were completed these were considered part of the decision-making process, identifying preferences which were interpreted by those responsible for case study sites. This interpretation was in some instances presented to end users for feedback, but this was considered advisory and did not necessarily result in alterations to schemes.

Approaches to equipment selection varied with some selecting items individually, then commissioning a company to present these within a design. Others provided an

overview of their envisioned outcome to equipment suppliers, then considering the resulting designs, selected the design which best interpreted their intention.

The ability to make decisions was influenced by budget, external restrictions such as planning permissions, site location and ownership. These in some cases acting against the individual or groups intention or selection, often occurring late within a projects delivery.

There was no formal decision-making process identified which was adopted across all case study sites. Where a substantial project was led by a council, individuals or sub-groups made a recommendation to full council, or nominated councillor, who then ratified suggestions. This provides an element of oversight and accountability, but also allows for personal preference to take priority over results of consultations or advice from those who had completed the review and recommendations. Volunteer groups lack this formal structure and therefore this may impact on their ability to make objective decisions. The advice in the literature recommends informal groups are formed to assist with the creation or commissioning of play parks but does not offer support or information to assist with decision-making.

That said in all instances there is always an intention to provide high-quality play opportunities for children. Council employees and Parish Councillors considered their play remit to be one which was of importance considering both the oversight and responsibility as positive. Volunteers initiated or joined projects after identifying a need; committing time and resources to address this. They became passionate advocates for their projects and did not identify the lack of assistance with group decision-making as an area of concern.

To evaluate the different approaches to consultation undertaken by play park commissioners

The interview schedule drawn up ensured data linked to consultation methods was gathered, each case study site adopting a different approach to consultations. These ranged from informal approaches and discussions during site visits, to wide-ranging, comprehensive consultations employing a number of different methods reaching as wide a population as possible.

Where minimal change was planned limited informal consultation occurred and equipment choice was made by a nominated individual, utilising their knowledge of available options and influenced to a degree by personal preference. Larger projects were supported by consultations with the intention of gathering the views of all relevant users. The effectiveness of these was not measured, preferences or requests were noted and considered, and the consultation process did not review information about respondents and then seek out under-represented groups.

The data gathered during the course of this investigation was reviewed and collated into a table (Appendix O). Evaluation of the data provided information on the consultation methods considered most effective by participants and the appropriate population (age / ability) for their use. This information also gave an indication of the most appropriate time within the consultation and commissioning process these should be utilised. This table was created with the intention that it's use will promote the inclusion of children as active participants and / or instigators of consultations in line with recommendations (Driskell, 2001; UN, 1999).

Although play parks are play venues for children, adult use generally in a supportive role facilitating play for young children or those with additional needs. Consultations, as with decision-making, were designed as an activity which they were participants in, not instigators of. A process where the outcomes were presented to them rather than shared and discussed. Case study participants were not aware of recommendations supporting the active involvement of children in decision-making and the different levels of participation (as illustrated in Hart's ladder of Participation (1992)). Where wide-ranging consultations were completed case study participants considered that these had been carried out in an inclusive manner. This is a key area where information and support to increase awareness of the benefits of children and young people's active involvement in decision-making will have benefits; for them as individuals developing skills for adult life, promoting self-worth and identification with their local community and fostering relationships across age groups potentially reducing anti-social behaviour and conflict.

To critically analyse play value offered by the design of case study play parks in relation to meeting the needs of those with differing abilities

The interpretation and understanding of play value were informed through the literature review. The site surveys for both the initial and main investigation supporting this researcher's practical understanding of this concept, one which can be summarised as provision of a wide variety of play activities including physical, cognitive and imaginative play options.

Analysis of the data from site surveys completed for the main investigation identified specialist provision as a method to enhance play value for those with disabilities but, as noted in Section 7.2.7, providing a wide variety of play activities with graded options supported access by users of differing abilities. This accessibility and usability contributing to increased levels of play value as the available options for play were higher.

Identification of the different play options at each site was supported by the development of an evaluation tool (PPET); from this an infographic to illustrate play value at each site was developed (Appendix H).

The development and validation of a tool evaluating existing play park facilities, supporting creation of new, or refurbishment of existing play parks supporting decision making processes and consultation methods used by commissioning bodies

To enable data collection across different sites for both the initial and main investigation a survey tool was required to ensure consistency of reporting. Existing tools were evaluated but did not record the range of information required to meet the research aim and objectives of this investigation. The Play Park Evaluation Tool (PPET) was developed from the data collection tool used in the MSc investigation (Parker 2010), refined through a trial and evaluation process until a suitable format was identified and subsequently used in the main investigation.

On completion of the main investigation a validation process of PPET was initiated. Review of data collection by this researcher for the main investigation had proven to be consistent. This enabled comparison between sites, and the evaluation of facilities which included completion of the play value infographic. However, as the designer of

the tool, effective use and understanding of the terminology and information to be gathered is expected. This did not mean that use by others would produce consistent results.

To assess inter-rater consistency PPET was used by 10 volunteers at a nominated play park (excluded from both the initial and main investigation), the completed forms compared with this researchers site survey of the play park. This exercise highlighted areas where different interpretations of the terminology occurred which affected the data collected. Alongside this inter-rater validation process, PPET4, a version with additional information included in each section, was shared with academics with an interest in play parks, representatives from equipment suppliers and with case study participants. Feedback received was positive, supporting the concept of a tool which could be used by those reviewing play park provision or commissioning new provision. The need for alteration to some aspects was highlighted including areas where additional clarity was required, revised terminology to support use internationally needed, and the inclusion of images.

Collection of data is meaningless if it cannot be summarised and communicated effectively. Demonstrating a concept such as play value in a manner which is easily understood both within a thesis, and with potential for wider use, required the creation of an infographic to convey this information. This resulted in the play value infographic which illustrates both the presence or absence of play options and identifies if these are accessible designs.

10.4 Main conclusions

In reviewing the evidence, data, and through the experience of completing this investigation, I conclude that, although the process of provision of play park facilities is effectively ad hoc and the supporting evidence and information available are not utilised by providers, the end results are providing wide-ranging play opportunities which support some aspects of inclusive play.

The localised nature of the process of creating play parks appears to restrict the views and approaches of those involved in provision. Revisiting play park delivery within the

context of the Ecological Model of the Built Environment (Sallis et al., 2007) (Figure 10.1), originally discussed in the literature review, there is recognition at an individual level of the needs of the local population. This in regard to demographics and biological (physical) links with the built environment. Supporting physical activity through direct interaction with play parks partially meets the requirement for physical activity but this investigation found no consistent consideration of methods of active transportation when planning play parks beyond provision of cycle racks. The recognition of the social benefits of play parks to a community is recognised through the time and monetary value invested in creating them, but without consideration of the practicalities of active transportation between sites. Placing the provision of play parks within the context of the development of the built environment and the over-arching policies directing this, the findings of this investigation are that aspects such as children's independent mobility and transport routes at local and national levels are neither recognised nor considered as relevant by providers. The implications of this are that developments such as transport routes or cycle paths are unlikely to link play parks with other amenities disconnecting them from some facilities and isolating them from the communities they serve.

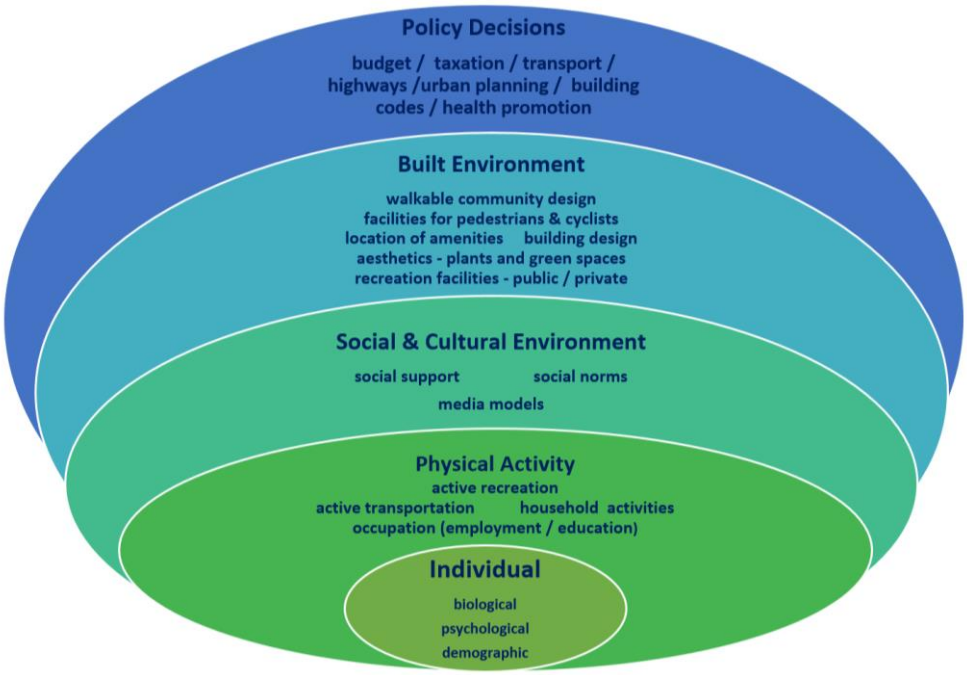


Figure 10.1 Ecological Model of the built environment
Source: Adapted from Sallis et al. (2006)

The interview data highlights how those providing play parks consider this responsibility as one which is of value, not only for children but also for the communities in which they are sited. The considerations underpinning their decision-making are not restricted to the selection of equipment but reflect wider aspects which impact on all users of a facility such as the location in relation to residential housing.

Creating play parks with play value for children was recognised across all case study sites as being a key outcome. Where direct comparison between previous and current provision was possible (CSS4, 6, 7 and 8), the play value infographics illustrate that new provision does offer increased play value. A single site (CSS2) provided an option for play across all activity types identified, this where the aim was to provide inclusive, accessible play and where wide-ranging consultations were completed. The limited understanding of the different types of play activities which can be enjoyed in a play park resulted in a focus on providing physical / active play opportunities (Figure 6.82). Five physical play types provide 78% of the play activities across all case study sites. The designs of equipment selected influence the play types found in play parks, the focus on physical / active play restricting opportunities for cooperative and social play. Linear and parallel play identified as the play types supported by the three most frequent play activities; swinging, sliding and climbing (Figure 6.82). This narrow focus limits the options for sedentary / passive play, which includes cognitive, sensory and imaginative play activities, therefore reducing opportunities for social and cooperative play. This not only has implications for children's ability to develop social skills in this setting but reduces opportunities to increase accessibility and inclusive play. Sedentary / passive play activities were found with low frequency but where included offered more accessible options (Figure 6.88).

Awareness of the need to consider accessibility and inclusion were aspects highlighted by participant' from all case study sites. However, the interview data identified how participants awareness and understanding of these concepts varied, with this reflecting in the end provision. The intention to provide for inclusive play did not necessarily result in a play park which enabled users with additional needs to enjoy a wide variety of play. Providing a range of equipment to promote access by users with different abilities or who require different levels of support was most frequently achieved

through the inclusion of different swing types (five case study sites), these different designs providing varying levels of support. Equipment designed to be climbed was found with the second highest frequency for multiple options at case study sites, but this did not provide different degrees of accessibility. Figure 6.79 illustrates the frequency of provision across case study sites. Reviewing accessible play options identifies roundabouts an item of play equipment which can provide graded options of support within a single accessible design. Figure 8.2 shows a design offering wheelchair access, seating, and the option to stand. This type of provision was not found in all case study sites, reducing opportunities for children of different abilities to engage in active play together on the same item of equipment.

Figure 10.2

Roundabout offering different options for users

This appears to be in part due to a disconnect between concepts of accessibility and inclusion, and the intention to provide play value. Whilst these two aspects are considered separately; one specialist provision and one general, moves towards effective universal provision will be hampered. The situation to be aspired to is one where play parks are conceived and designed for all users with a wide range of equipment providing high play value across all types of play. This disconnect is evidenced by the option to identify play parks as accessible and inclusive (utilising the map and signage provided by InclusivePlay.com) without highlighting play value for all users. Moving forwards, increased awareness and understanding, supported by readily available evidence-based information, should lead to a change in approach and eventual provision of facilities with the play value currently aspired to. When this is

accomplished universally understood signage such as the proposal illustrated in Figure 9.20 will demonstrate this has been achieved.

Involving communities in the decision-making process is widely accepted as beneficial, the interview data identifying consultation was used at all case study sites. There is however a wide variety of approaches and levels of consultation adopted, from low-level informal discussions, to wide-ranging approaches designed to gather opinions across the full spectrum of play park users. A key finding of this investigation is the absence of two user groups as instigators or active participants; children and those with disabilities. This second group comprising of both adults and children, children with disabilities as active users of play parks, and adults with disabilities supporting children's access to play. Children with disabilities are further isolated, possibly through the perception that this group are not active end users of the play park, or through a presumption they do not have the ability to communicate their thoughts and opinions save via the voice of adults. In turn this also applies to adults with disabilities who are in most instances not considered as active end users of play parks. Information and support for those providing play parks was identified; evidence-based academic reports and articles, and more general advice. The latter, often informed by academic resources, is not actively sought out and utilised by play park providers perhaps as it does not offer the direct advice and the ability to evaluate provision which they seek.

10.5 Contributions

A requirement of doctoral research is that it is an original contribution with significance in the field being investigated; described by Petre & Rugg (2010) as 'Making a significant contribution … adding to knowledge or contributing to the discourse'. The conclusions in this thesis therefore not only summarise the findings from the data, but also consider how the design of the investigation contributes to knowledge, research methodology and to practice.

10.5.1 Contribution to knowledge

Investigations into effective play park provision have considered how design and choice of equipment have impacted on observed provision considering play value and

accessibility. This has included the views of providers, parents and children in relation to access for those with disabilities. The aim of this PhD investigation was to examine the reasoning and decision-making process underpinning the provision of play parks in England. This an area which had not previously been considered yet has a direct impact on each play park created. Process and provision are interconnected, therefore the consideration of accessibility, usability and play value at case study sites, alongside interview data provided by play park commissioners offers insights, not only into what aspects are considered in the commissioning process, but also how effectively these translate into practice.

The data from site evaluation provides insight into play park provision in England regarding accessibility, usability and play value. The evaluation of this data contributing to the growing body of international knowledge and awareness of the need to review and revise provision to support play by users of all abilities, positing these three aspects as of equal importance in the provision of play parks.

Contribution to a body of knowledge includes highlighting areas where information and evidence are lacking. The investigation into the reasoning underpinning play park provision has identified such an area; group decision-making in the context of informal or volunteer groups.

The areas highlighted through this investigation will promote and inform future research on related topics in the area of play park design, outdoor play and access to play opportunities for children with disabilities.

10.5.2 Contribution to methodology

This investigation required the consideration of two main data sources; case study site surveys and participant interviews; supplemental data sourced from grey literature. Previous investigations have considered the play experiences of children (Burke, 2009) the opinions of children with disabilities, and the opinions of those responsible for commissioning play parks (Prellwitz & Tamm 1999). This latter enquiry most closely aligned with this investigation, however the methodology adopted was restricted to

telephone interviews investigating attitudes towards accessibility. Therefore, data from these interviews could not be compared with evaluations of the sites discussed.

This investigation not only considers the decision-making process of individuals and groups, but through site evaluation, identifies how effective this has been, a combination which has not been utilised previously.

The site evaluation tool (PPET) providing a method through which future investigations can gather data. The invitation to conduct face-to-face participant interviews at the case study site enabling participants opting for this location the ability to highlight aspects they considered key to the provision, and for the researcher to discuss areas of note whilst on site.

10.5.3 Contribution to practice

The focus of this investigation highlights the importance of the values, attitudes and understanding of those responsible for play park provision in England. The findings highlight the variety of approaches and understanding of how high-quality play park provision with play value is achieved.

The literature review highlighted the limited scope of evidence-based information available to those responsible for play park provision. These information sources offer advice regarding good practice but are fragmented presenting barriers to those seeking support. The PPET offers a structure by which sites can be evaluated in detail, but in addition, has potential to be adapted to provide information and explanation in regard to how environment and equipment can promote accessible, inclusive provision with play value.

This tool has the potential for wider use outside of academia. With revision and validation it could be adapted to provide an accessible method by which those responsible for play parks could evaluate provision or plan refurbishments. Where a full refurbishment or a new play park is commissioned PPET has potential to reduce reliance on the equipment supplier's design service. Through completion of an evaluation those responsible for provision will be able to evidence areas where play

value has been achieved or where additional play types are required. The additional information in PPET 4 presented in a more accessible format provides background and context supporting decision-making. The presence of accessibility and usability within PPET highlights these as areas which require attention. The inclusion of these within a 'mainstream' evaluation document indicates these are aspects which should not be considered separately from standard provision promoting a move towards inclusive play provision.

Additionally, illustrating the play value identified through completing the PPET is supported through the development of the play value infographic. This infographic presents the data in a manner which is easily interpreted and identifies areas where an aspect of provision can be developed and enhanced. The play value infographic promotes the joint consideration of play value and accessibility, thus supporting moves towards inclusive play provision. Currently there is no expectation that play park signage will illustrate the types of play / play value a site offers; adoption of a universal method of presenting this information would enable users to select play destinations which meet both children's needs and preferences.

Participants in this investigation recognised the value of consultation with local communities and end user groups. However, approaches varied, and the involvement of children was limited. Good practice guidance promotes the participation of children and young people but lacks practical advice on how and when consultations should take place. Also lacking is advice on how to elicit the voice of those requiring support to communicate, through age, cognitive ability or the need for supportive or specialist communication methods. Synthesis of the interview data into a table which communicates how consultations can be completed, the point in the commissioning process these are most effective, and which groups should be approached, provides a structure to support future consultations. Development of resources to support consultations across all age ranges and abilities to be used in conjunction with this proposed process will support play park providers in eliciting the voices and opinions of those the facility is created for. Additionally, this supports the concept of post completion evaluation enabling the effectiveness of the provision to be considered and

identify areas for future development underpinned by the preferences of the local community.

10.6 Challenges and limitations

The pathway to completion of a PhD investigation is long and in itself a challenge to sustain, but throughout the process additional challenges are presented both personal and academic.

Personal challenges

Initiating this investigation as a self-funded, lone researcher, the commitment to a five-year part-time study programme supported by a University situated 100 miles from my home location was a challenge which required both consideration and reflection. The financial and time commitments required alongside work and family responsibilities meant I had to be certain I could sustain the necessary effort. Over the five-year period life presents unexpected twists and turns impacting on the time and resources available. For me challenges presented themselves in the form of changing health conditions and the need to increase my working hours for twelve months to cover a colleagues' maternity leave.

Reflecting on the past four and a half years I feel I have risen to the challenges presented, showing the commitment necessary to remain on track. In this I recognise that the support of family, friends, work colleagues and my supervisors were essential in ensuring I have reached this point.

Academic challenges

As noted above my academic route places me at distance from the University of Salford which reduces the immediacy of academic support and resources available, this mitigated through the use of digital resources and Sconul access to my local university's library facilities. Support from my supervisors was accessible through email, Skype and face-to-face meetings arranged to maximise available time for support. The progress towards establishing final research aims and objectives did, as for many researchers,

require review and revision of the intended areas of investigation as other studies were found which had completed investigations in these areas.

Once the research aims and objectives were established, and the methodological approach identified, the challenges to be addressed included the granting of ethical approval. This approval was granted, however only following a re-submission with additional assurances only adult participants would be recruited, and that children using case study sites would be safe-guarded during researcher visits. Timescales impacted the progress of the investigation; firstly, the requirement to complete within a specified time (five years) limited methodological choice. Approaches such as action research were deemed impractical due to the inability to ensure a play park project would be complete within the time available for active research. Secondly, the distance between case study sites and their location limited opportunities to gather additional data at some sites, however support from participants in answering additional queries reduced the potential impact. Additionally, the need to create and modify a data collection tool to support this investigation, rather than utilising an existing tool, was a time-consuming process which had to be completed prior to the main investigation. This reducing the length of time available to complete this and the main investigation. Finally, the participant interviews were transcribed by this researcher, the time invested in this was significant, but was balanced by the greater in-depth knowledge of the data than if a transcription service had been employed to complete this task. The large amount of data generated around the case study sites required organisation to ensure consistency of approach and analysis; this managed by the use of NVivo10© a computer-assisted qualitative analysis programme.

Limitations of this investigation

No case study investigation can effectively cover all the areas relating to and impacting on the aspects being studied. For this research the number and location of sites reviewed in the initial investigation, and the number of main case study sites mean that the results cannot be generalised to all play park provision. The design of this investigation intending to provide analysis of an area not previously examined, establishing a level of understanding which could underpin future, larger, investigations

which may then have the breadth and depth of data to enable generalisation. It should be noted though, that the main case study sites were selected to represent the different approaches to provision found in England.

The selection of methodology employed ensured the representation of different approaches to play park provision but did not support the random selection of case study sites. The withdrawal part-way through the investigation of some participants required the selection of alternative case study sites within defined criteria. This to ensure the different approaches previously identified were represented in the main investigation. The limited sample size (8) also prevented selection of sites to represent the variation in approaches, both regionally and nationally.

The inability to identify a site evaluation tool to meet the requirements of this investigation resulted in the creation of the PPET. This tool was effective in gathering the data needed for this study, in part due to the depth of knowledge acquired by this researcher during the creation and revision of this tool; but use by others was less successful highlighting areas requiring revision.

The participation of children in matters which may have the opportunity to impact on their lives is a key theme arising from this investigation, unfortunately this is reflected in the research design. This limitation was imposed by the terms of the ethical approval, a decision accepted by this researcher following discussions with supervisors. This decision informed by the knowledge that the sites already contacted to discuss if they would consider participating in the investigation had not actively involved children. This, the awareness of time constraints, and the additional time required to gain further ethical approval reducing the time for active research contributing to the research design.

10.7 Opportunities for future research

This investigation has considered how the decision-making of those responsible for play park provision has impacted on the accessibility, usability and play value of the resulting play provision. This could be viewed as an initial investigation into this subject due to the limitations noted previously. A larger investigation would provide the breadth and

depth of data required to generalise from the results. This would then assist with developing the understanding of which aspects are key to ensuring those responsible have the knowledge and tools to support effective provision.

Data was generated from case study sites in different stages of development, fully complete to ones completed during the progress of this study. This required some participants to reflect on past decision-making and processes. This enabled them to review and reflect providing an evaluation on aspects of their involvement, something those with active involvement were unable to offer within the timescale of the investigation. An investigation adopting a different methodology, such as a longitudinal study or action research, has the ability to generate more detailed results from a single case study site.

The PPET may be a tool which can support the evaluation of existing and new play park provision. However, the initial validation completed has identified that this tool requires revision and refinement. To ensure the final version of this tool is effective completing this process within an investigation would ensure the PPET is a usable evidence-based tool appropriate for adults and children and can be applied by volunteer groups as effectively as by those employed in formal roles. This should include a review of the play value infographic as an easily understood method of presentation of the PPET findings relating to usability and play value, potentially providing a method of highlighting these aspects of provision at play park sites.

Studies considering aspects of outdoor play related to items of fixed equipment generally focus on installations linked to educational institutions or within cities. This investigation has considered provision across different locations, city, town and rural. The freedom and opportunity to play outdoors may differ between these environments therefore future research could investigate differences in the type of provision across these. Additionally, the approaches of those responsible for play parks may differ dependent on location, those within higher density areas considering provision of play facilities to be of greater importance than in rural areas where there may be more options for physical outdoor play.

An important aspect which future research needs to consider and promote is the involvement of children in the provision, evaluation and decision-making linked to play parks. The design of investigations which include children and young people recognising their right to be active within their communities, also offering experiences which provide skills useful in adult life.

10.8 Final reflection

The choice to set out on the path leading to the completion of this investigation and thesis was, for me, a key decision. I stepped away from roles within which I had become comfortable; parent, partner and occupational therapist. The role of researcher has required me to acquire new skills and knowledge, re-visit old skills, and to test myself and my resilience.

The personal benefits derived from this challenge cannot be the main result of my efforts; they need to support the provision of high-quality play parks to promote and facilitate play for children of all abilities. Setting out five years ago with the ambition to advance my understanding of how effective provision is achieved has evolved and developed into a wish to use this acquired knowledge to support those working in this area.

The growth of restrictions on opportunities and spaces for children to enjoy free play outdoors means that play parks will have increasing importance in their lives. Well-designed play parks offer so much more than a chance to engage in physical play. The challenge moving forward is to progress from the current situation, where play for those with additional needs is viewed as a segregated activity requiring specialist equipment, to one where inclusive play provision is commonplace. Highlighting the numerous benefits these facilities offer to communities, alongside tools to support their evaluation and creation, will ensure they remain valued community assets and maintain their place as a key location throughout children's lives providing benefits; but more importantly, happy childhood memories.

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Appendices

Appendix A: Examples of commonly found play equipment or design features with associated skills and play value.

(Source: identified by researcher)

Play Equipment	*Associated skills*	*Play value*
Swing	Sitting balance Standing balance (if child chooses to stand) Grip Coordination Core stability	Stimulation of vestibular system – linear / circular motion Element of challenge / risk in swinging higher Nest swing – social play
Slide	Lower limb strength / coordination Grip balance	Stimulation of vestibular system – 'modified fall' Challenge / risk (perceived through height & speed)
See Saw / Rocker/ wobble board	Sitting balance Grip Lower limb strength	Stimulation of vestibular system – linear / circular motion Multi use – social / cooperative play
Roundabout / swivel pole	Sitting balance / Standing balance (dependent on design) Upper body strength (pushing /pulling) Core stability	Stimulation of vestibular system – rotation Challenge / risk (perceived through speed) Multi use – social / cooperative play
Climbing frame	Upper limb strength Lower limb strength Coordination Balance Jumping	Development of proprioception (awareness of body in space) through contraction / stretching of muscles & full range of joint movements / joint compression Agility Spatial awareness
Monkey bars / Giant's steps	Upper limb strength Coordination Grip	Development of proprioception (awareness of body in space) through contraction / stretching of muscles & full range of joint movements / joint compression

Stepping stones	Balance Coordination Core stability	Development of dynamic balance (through feet) Proprioception Challenge (through height / complexity / support offered)
Tunnel	Coordination Core stability	Development of proprioception (awareness of body in space) through contraction / stretching of muscles & full range of joint movements / joint compression Tactile stimuli – e.g. full body contact
Bridge	Balance Grip (if required)	Development of dynamic balance (through feet) Proprioception Challenge (through height / complexity / support offered / width / dynamic movement)
Play structure	Identifiable structure e.g. house / boat / castle	Imaginative play Role play Cooperation Solitary / quiet time
Activity panels	Puzzle solving or playing Imaginative play Mirrored surface Music / chimes etc.	Cooperative & cognitive Role play Visual stimulation Auditory stimulation
Choice of material	Smooth / rough Chain / rope Hard / yielding Natural / manufactured Uneven Colour	Metal surface (slide) Boulders or rope Metal links / plastic or natural rope Metal or wooden construction / flexible surface or dynamic construction Grass / poured rubber surface 'bumpy' slide or use of landscaping Visual stimuli / way finding

Appendix B1: PPET1 - Initial site survey tool.

Site survey location:
Date of Site survey

1	**Access to location**	**Yes**	**No**	**Approx. distance to entrance**	**Comments**
A	Bus Stop				
B	Link to train station (if applicable)				
C	Pedestrian road crossing				
D	Car parking				
E	Cycle park				
F	Dropped kerbs				
G	Tactile paving				
H	Surface conditions				
I	Topography				
J	Traffic flow				

Notes:

1 a Time table information
1 c Pelican crossings, zebra crossings, puffin crossings, toucan crossings, traffic islands, footbridges, and subways
1d number of spaces, accessible parking bays, signage, monitoring of use.
1h surface finish, state of repair
1i changes in ground level, hills, slopes, steps etc.

2	**Entrance**	Yes	No	Approx. length / number	Comments
A	Route marking to entrance				
B	Ramp				
C	Steps				
D	Door / Gate				
E	Grab rails / Hand rails				

Notes:

2a Is the entrance clearly marked, alternatives highlighted
2b Width, incline, surface finish, upstand, hand rail, size of landings,
2c Number, suitability (depth, riser height, nosings etc.) hand rails, size of landings
2d Force required to open (light / heavy), width, flush threshold

3	**Internal access within location**	Yes	No	Length	Comments
A	Floor surface				
B	Paths				
C	Changes in level				

Notes:

3a Type of covering(s), condition, trip hazards, changes in surface coverings
3b Length, width, condition, obstructions, wheelchair turning / circulation
3c Steps, ramps, hand rails, landscaping.

4	**Other aspects**	Yes	No	Length	Comments
A	Safety Information				
B	Toilets				
C	Seating / rest areas				
D	Lighting				

Notes:

4a Advice on safe use, information on correct age / height for use, contact information in case of accidents / damage to site.
4b Location, type.
4c Number, type, seat height

5	**Equipment**	**Yes/ No**	**Metal (M) Wood (W) Net (N)**	**Modular unit**	**Comments**
A	slide				
B	Swings				
C	Roundabout				
D	Climbing frame				
E	Tunnel				
F	Rocker / Seesaw				
G	Hanging bars				
H	Activity panel				

I	Wobble board				
J	Exercise equip.				
K	Bridge				
L	Other				

	Activity		
A	Swinging		
B	Hanging		
C	Climbing		
D	Balancing		
E	Crawling		
F	Rocking		
G	Rotating		
H	Sliding		
I	Sitting (other than on seat or bench)		

Other

Appendix B2: PPET Version 2

Location: Date of Site survey:

Completed by:

Purpose: New provision/ refurbishment / review

1. Access	Yes / No	Distance to entrance	Comments
Transport links	Yes / No		
Pedestrian crossing	Yes / No		
Parking	Yes / No		
Cycle Park	Yes / No		
Dropped kerbs / tactile paving	Yes / No		
Traffic flow	Yes / No		
Surface finish			
Shelter	Yes / No		
Other			

2. Entrance(s)		Distance / Number	Comments
Number of access points			
Way finding	Yes / No		
Ramp	Yes / No		
Steps	Yes / No		

Gate (s) & Fences	Yes / No		
Grab / Hand rails	Yes / No		
Other			

3. Internal access		Distance	Comments
Surface finishes			
Paths	Yes / No		
Topography			
Other			

4. Other aspects		Number	Type of provision	Comments
Safety Information	Yes / No			
Public toilets	Yes / No			
Seating / rest areas	Yes / No			
Lighting	Yes / No			
Other				

5. Equipment		Construction Materials / Finishes	Stand-alone / Modular	Low entry / accessible	Comments
Slide	Yes / No		Sal / Mod		
Swings	Yes / No		Sal / Mod		
Roundabout / swivel pole	Yes / No		Sal / Mod		
Climbing frame	Yes / No		Sal / Mod		
Tunnel	Yes / No		Sal / Mod		
Rocker / Seesaw	Yes / No		Sal / Mod		
Hanging (monkey) bars	Yes / No		Sal / Mod		
Activity panel	Yes / No		Sal / Mod		
Wobble board	Yes / No		Sal / Mod		
Exercise equipment	Yes / No		Sal / Mod		
Bridge	Yes / No		Sal / Mod		
Balance beam	Yes / No		Sal / Mod		
Trim trail	Yes / No		Sal / Mod		
Climbing net / wall	Yes / No		Sal / Mod		
Other:					
Hand rails on items of equipment					

Key	Metal	Wood	Rubber	Plastic	Net	Other	Stand-alone	Modular
	M	W	R	P	N	O	Sal	Mod

6. Play Value	Number of elements	Graded activity ✓	Comments
Swinging			
Sliding			
Climbing			
Balancing			
Crawling			
Rocking			
Bouncing / jumping			
Rotating			
Sitting			
Auditory			
Visual			
Cognitive /imaginative			
Strength / upper body			
Tactile			
Solitary play			
Co-operative /social play			
Comments / Recommendations			

Appendix B3: PPET Version 3

PLAY PARK EVALUATION TOOL

Location: **Date:**

Assessor:

Purpose: New provision / Refurbishment / Review

(Delete as appropriate)

1. Access

Being able to access a play park is important for those with impaired mobility & for those with push chairs. Facilities such as pedestrian crossings promote safety. Being able to reach a play park on foot or by bike promotes a healthy activity. These methods of travel & public transport links support children's independent mobility. Where a play park is considered to offer a good play experience it will often attract users from outside of the local area. Facilities such as toilets may enable users to stay longer increasing park use.

	Feature	Comments
Transport Links	Cycle lane Bus stop	
Pedestrian crossing	Type (Zebra / pelican/ footbridge / subway etc)	
Parking	Carpark Number of spaces Accessible parking bays Charges No parking	
Cycle park		
Kerb features	Dropped Tactile paving	
Traffic flow	Main or side road Speed limit	
Surface finish	Hard landscaping Natural surfaces	
Other	Lighting CCTV Toilets Seating	

2. Entrance(s) to play park

Ensuring the entrance to a play park is clearly signposted & highlighted assist users in locating it. Fences offer security for younger or vulnerable users but gates at entrance points can become barriers for some users.

	Feature	Comments
Access points	Distance from access route(s)	
Wayfinding	Signs Paths / route markings	
Access points	Open Gated Locks Colour / contrast	
Ramps / steps	Ramps Steps Gradient Construction Rails	
Fencing Other	Height Colour Material Design Safety Information	

3. Internal Access

Within a play park the choice of surface finishes may facilitate use, or create barriers.

	Feature	Comments
Surface finish	Coverage Grass Wet pour rubber Rubber tiles Loose fill (sand / bark or rubber chips) Pathways Topography	

4. Non-play equipment.

Whilst not directly adding to play experience additional elements assist in making the play park feel secure & welcoming encouraging use.

	Feature	Comments
Lighting	Direct Indirect lighting Position Design	
Seating	Benches Park benches Picnic benches Teen shelters	

Other	Social areas Shade Hardstanding Waste bins	

5. Play equipment

There is a wide variety of play equipment available with both traditional & modern design. The choice of equipment should be individual to each site reflecting both the expected users & the location & provide a variety of play experiences.

	Feature	Comments
Slide	Play type Traditional design Integrated in modular designs Construction Slide design	Social / Solitary/ Parallel / Cooperative / Linear / Tactile / Cognitive / Imaginative / Graded
Swings	Play type Toddler Traditional Nest / net Supportive seats Wheelchair swings Other	Social / Solitary/ Parallel / Cooperative / Linear / Tactile / Cognitive / Imaginative / Graded
Roundabout /swivel poles	Play type Access Design	Social / Solitary/ Parallel / Cooperative / Linear / Tactile / Cognitive / Imaginative / Graded

Climbing Frame	**Play type** Design Construction	Social / Solitary/ Parallel / Cooperative / Linear / Tactile / Cognitive / Imaginative / Graded
Tunnel	**Play type** Design Construction	Social / Solitary/ Parallel / Cooperative / Linear / Tactile / Cognitive / Imaginative / Graded
Bridge	**Play type** Design	Social / Solitary/ Parallel / Cooperative / Linear / Tactile / Cognitive / Imaginative / Graded
Rocker / seesaw / wobble board	**Play type** Design	Social / Solitary/ Parallel / Cooperative / Linear / Tactile / Cognitive / Imaginative / Graded
Monkey bars / rings	**Play type** Design – bars Hoops	Social / Solitary/ Parallel / Cooperative / Linear / Tactile / Cognitive / Imaginative / Graded
Balance beam / stepping stones	**Play type** Design	Social / Solitary/ Parallel / Cooperative / Linear / Tactile / Cognitive / Imaginative / Graded
Trim trails	**Play type**	Social / Solitary/ Parallel / Cooperative / Linear / Tactile / Cognitive / Imaginative / Graded
Activity Panels etc.	**Play type**	Social / Solitary/ Parallel / Cooperative / Linear / Tactile / Cognitive / Imaginative / Graded
Play structures	**Play type**	Social / Solitary/ Parallel / Cooperative / Linear / Tactile / Cognitive / Imaginative / Graded
Sports & exercise	**Play type**	Social / Solitary/ Parallel / Cooperative / Linear / Tactile / Cognitive / Imaginative / Graded
Natural elements	**Play type**	Social / Solitary/ Parallel / Cooperative / Linear / Tactile / Cognitive / Imaginative / Graded
Other	**Play type**	Social / Solitary/ Parallel / Cooperative / Linear / Tactile / Cognitive / Imaginative / Graded

6. Play value

Play parks should aim to provide a range of activities to appeal to a wide a range of users as possible. Having different levels of difficulty or methods of access support use by those with different abilities & provide opportunities to attempt challenges & take risks. (Note: items of play equipment will provide more than one aspect of play value e.g. a slide's play value will include solitary & linear play, climbing and sliding.)

Activity	Total No. of items offering this activity	No. of alternative access options / difficulty levels	Comments
Swinging			
Sliding			
Climbing			
Balancing			
Crawling			
Rocking			
Bouncing / jumping			
Rotating			
Auditory			
Visual			
Tactile			
Cognitive			
Imaginative			
Solitary play			
Social play			
Cooperative play			
Parallel play			
Linear play			

Summary (including any suggested changes to add play value)

Appendix B4: PPET Version 4 (with guidance notes)

PLAY PARK EVALUATION TOOL

Location: **Date:**

Assessor:

Purpose: New provision / Refurbishment / Review

(Delete as appropriate)

1. Access

Being able to access a play park is important for those with impaired mobility & for those with push chairs. Facilities such as pedestrian crossings promote safety. Being able to reach a play park on foot or by bike promotes a healthy activity. These methods of travel & public transport links support children's independent mobility. Where a play park is considered to offer a good play experience it will often attract users from outside of the local area. Facilities such as toilets may enable users to stay longer increasing park use.

	Feature	Comments / Points to note
Transport Links	**Cycle lane**	Safer alternative for cyclists Access for those without transport who may prefer to travel to your play park.
	Bus stop	Circular routes & regular timetables promote travel to & from the play park
Pedestrian crossing	Type (Zebra / pelican/ footbridge / subway etc)	Location close to the entrance minimises risks for those accessing the play park
Parking	Carpark	Promotes use by those with transport.
	Number of spaces	Advises if there may be limited availability at busy times especially if shared by other facilities e.g. football or rugby pitches.
	Accessible parking bays	Distance to entrance points, number & availability are useful information for disabled users.
	Charges	Costs & when charges apply assist those with limited budgets to plan visits.
	No parking bays	May result in parking on the roadside or pavements which will increase risks for those crossing the road to access the play park.
Cycle park		Promotes active forms of transport, reduce risk of injury within play park area from bikes being left propped against equipment etc. Covered racks encourage use in damp conditions.
Kerb features	Dropped kerbs	Highlights crossing points & supports access for wheelchair users or those with pushchairs.
	Tactile paving	Highlights crossing points minimising risk for those with visual impairments
Traffic flow	Main or side road	A high volume of traffic flow without a safe crossing point close to the entrance may encourage users to ignore safer crossing points. Repositioning an entrance point as close as possible to a designated crossing point will minimise risk. Noise & air pollution will be higher close to main routes & may influence the numbers who choose to use the play park
	Speed limit	
Surface finish	Hard landscaping	Well maintained **tarmac** or **concrete** will assist users with mobility impairments, wheelchairs & pushchairs. Loose fill finishes such as **gravel** are difficult to cross for users with mobility impairments, wheelchairs & pushchairs.
	Natural surfaces	**Grassed** areas become uneven over time & are difficult to cross for users with mobility impairments,

		wheelchairs & pushchairs, require regular mowing & in wet weather are hazardous as they become slippery. **Compacted soil** is muddy in wet conditions & over time becomes rutted therefore difficult to cross for users with mobility impairments, wheelchairs & pushchairs. In dry conditions the dust it produces may affect those with asthma or similar conditions.
Other	Lighting	Lighting assists with access & with feelings of security. It can be used to assist with way-finding.
	CCTV	Can reduce incidence of anti-social behaviour & increase a sense of security.
	Toilets	Distance from play park, accessible provision & access arrangements (opening hours, RADAR key scheme), Baby change facilities.
	Seating	If the car park is at a distance from the play park seating on the route will support use by those who are unable to walk distances without resting.

2. Entrance(s) to play park

Ensuring the entrance to a play park is clearly signposted & highlighted assist users in locating it. Fences offer security for younger or vulnerable users but gates at entrance points can become barriers for some users.

	Feature	Comments / Points to note
Access points	Distance from access route(s)	Access points close to parking, transport links & road crossing points facilitate access when play parks are fenced in. Where access is from more than one direction additional access points are helpful to minimise effort for those with limited stamina.
Wayfinding	Signs Paths / route markings	Play parks can be located in out of the way locations. Signs should highlight the most accessible route. Signs should be clear & at a height visible for those of short stature \ or wheelchair users whose sightline is lower than that of an adult. Routes to a play park can be highlighted with a path of a different design, or through the use of surface markings (such as footprints or arrows) on the main route to the play park.
Access points	Open Gated Locks Colour / contrast	Open access points may have an inset grid to prevent access by animals, this may limit users with walking aids (sticks or crutches). Open access allows free movement between the play park & its surroundings. Younger children or those with reduced safety awareness require greater supervision. **Self-closing** gates may be difficult to open if the spring tension is high. **'Kissing' gates** cannot be used by those with pushchairs, buggies or wheelchairs. **Bike Barriers** – some designs prevent pushchair & wheelchair access. Play parks may have limited open times & be locked overnight. Highlighting entrances through colour & contract assists with wayfinding & those with visual impairment.
Ramps / steps	Ramps	Facilitate access for pushchairs & wheelchairs but may not be suitable for ambulant disabled users. The gradient should

		not exceed 1:12 & should have level platforms at each end. Further information is available in Part M of the Building Regulations.
	Steps	Steps should be of sufficient depth to enable the full foot to rest on them & should be of the same depth & height throughout the flight of steps as this is easier to manage. Further information is available in Part M of the Building Regulations.
	Gradient	Steep gradients of both ramps & steps require increased effort impacting on access for those with mobility impairments or reduced stamina, & for those with wheelchairs & pushchairs.
		Different materials have different slip resistance properties altering with weather conditions.
	Construction	Natural materials such as wood or stone may have less visual definition, both in outline & contrast, with surrounding surfaces & therefore not as accessible for those with visual impairments.
	Rails	Adults & small children require handrails & grab rails set at different heights. Handrails can highlight routes for those with visual impairments.
Fencing	Height	Fencing defines the play park boundary from the wider area & highlights it as a place for play. It provides security for younger children & those with reduced risk awareness. Fencing & gates prevent access by dogs & cyclists. It can be used to separate areas of equipment for different age groups. This prevents younger children accessing equipment designed for older users. It limits socialisation between different age groups & a child's ability to attempt challenges by trying larger items of equipment (moving to a 'new' area may be daunting but attempting a challenge in a familiar area helps a child's confidence). Parents & carers responsible for more than one child may find supervision difficult when their age group & skills suit different areas. High (2m) fencing may be used to protect an area from antisocial behaviour. This height of fencing may make the area less appealing as an area for play. Lower fencing can still limit access & provide a secure play environment.
	Colour	Can assist with wayfinding & highlights an area as one for play. Contrasting colours highlight entrance points (see above).
	Material	High metal fencing can appear industrial & therefore not an appealing area to play in. Wooden fences require a higher level of maintenance.
	Design	Some designs may encourage children to climb as they offer foot & hand holds.
	Safety	Fencing may be essential where the play park is adjacent to a road or where it is close to organised activities such as crown green bowls, tennis or football, or facilities such as skate parks. A fenced area provides a secure area for younger children & those with reduced risk awareness. It may not be necessary to fence a play park – in a rural location or within a green space fencing may limit opportunities for play in the wider area. Socialisation between children of different ages & abilities is promoted through placing equipment within a single area. Where specialist / accessible equipment is provided this

Other	Information	should be co-located with other equipment to promote inclusion. **Opening hours- assists** in planning visits **Age restrictions**-indicates which age group the play park has been designed for but may suit the abilities of children outside of this age range. **Contact details**-of those responsible for the play park enabling reporting of maintenance issues etc. **Website / social media** details enable visitors to keep up to date with events & fundraising.

3. Internal Access

Within a play park the choice of surface finishes may facilitate use, or create barriers.

	Feature	Comments / Points to note
Surface finish	**Minimum standards**	To minimise risk of injury, fall attenuating surfaces are used, details available from the British Standards Institute (BSI).
	Coverage	Where a number of different finishes are used the transitions between surfaces may affect wheelchair users & those with mobility impairments.
	Grass	Grass is a natural surface but requires ongoing maintenance. Long grass is difficult to negotiate & may obscure trip hazards. Grass is slippery in damp conditions, if clippings are left after mowing they clog up treads on wheelchairs & may track though to other surfaces increasing the risk of slips.
	Wet pour rubber	This provides a smooth surface finish, colour, patterns & activities can be included. Colour can be used to zone activity areas, or highlight risk areas such as around swings or slide landing zones. Impermeable surfaces increase water run off to adjacent areas which, if they become waterlogged, will affect access.
	Rubber tiles	Can be used to introduce colour but require ongoing maintenance as they can lift becoming a trip hazard & impede access. See above for impermeable surfaces.
	Loose fill (sand / bark or rubber chips)	Loose fill surfaces require a raised edge / upstand to retain the sand or bark chips. These, & the surfaces, are difficult to cross for those with mobility impairments, wheelchair users or with pushchairs. Levels will drop through breakdown & tracking to other areas through use & therefore will need monitoring & topping up as required. Hygiene may be an issue through fouling by animals, & sharp objects may not be easily visible.
	Pathways	Linking items of equipment or areas within the play park. This assists those with mobility impairments, wheelchair users & those with pushchairs. See above for different surface finishes. Width – where space allows pathways should be wide enough for two wheelchairs to pass. If this is not possible wider areas along the path's route create passing points preventing users stepping off on to uneven ground. Route - the path can promote safe routes between items of equipment further minimising risk. Imagination – using a theme or introducing elements along the pathway can promote play activities using imagination with the pathway becoming part of the play experience. Different levels within a play park can offer additional play experiences e.g. rolling down a bank, also play equipment can

	Topography	be used in conjunction with these e.g. embedding a slide on a bank, or a bridge over a ditch. Gradient – steep gradients are difficult to traverse & may require paths or steps to minimise risk. Natural elements – rocks, trees, water & other natural elements offer additional interest & promote interaction with nature.

4. Non-play equipment.

Whilst not directly adding to play experience additional elements assist in making the play park feel secure & welcoming encouraging use.

	Feature	Comments / Points to note
Lighting	Direct	This will increase the usage of the park during the winter months but may encourage use as a meeting point in the evenings / night & may raise concerns over anti-social behaviour.
	Indirect lighting	See above – street lighting or from other facilities such as floodlights from football pitches may encourage use outside of expected hours.
Seating	Position	Seating should be provided so those supervising children have a place to rest whilst observing play,
	Design	Seating should be positioned to have clear sight lines to the equipment assisting with supervision of younger or less able children. People have different needs, some require back rest support whilst others need armrests when rising from a seated position, therefore a variety in height & design is of benefit & should include seating suitable for children.
	Picnic benches	Provide for families or groups to sit & eat especially play parks which attract those from outside of the immediate area.
	Teen shelters	Are identifiable areas for gathering & socialising & can prevent older children utilising play structures preventing younger children playing in them.
	Social areas	Seating should provide options suitable for single & multiple occupation & can be grouped together to encourage socialisation.
	Shade	Seating in shaded areas provides cover during rain, & shelter from the sun reducing the risk of sunburn.
	Hardstanding	Seating should have hardstanding adjacent to it for use by wheelchair users & those with pushchairs.
Other	Waste bins	Minimise litter but will require arrangements for emptying. In green / dog walking areas the presence of a dog waste bin will encourage owners to pick up dog waste but should not be situated within the play park area.

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5. Play equipment

There is a wide variety of play equipment available with both traditional & modern design. The choice of equipment should be individual to each site reflecting both the expected users & the location & provide a variety of play experiences.

	Feature	Comments / Points to note
Slide	Play type	Traditional slides do not allow for children to use the slide together. Double or triple slide designs promote social play & also allow parents or carers to slide with children who need support.
	Traditional design	Allows for individual linear play, slides of differing heights allow for children to choose the experience they are most comfortable with. These slides usually offer one access option only.
	Integrated in modular designs	Heights – see above. Modular units may offer different access methods (steps, ladders, cargo nets etc) which enable children to select the one they are most comfortable with / attempt new challenges. (Note – steps are easier to negotiate than ladders with rungs)
	Construction	Traditional designs are metal which can become hot in sunny weather & require checking for sharp edges. Plastic designs are usually lower in height & the sliding surface has more resistance lowering the sensation of speed / risk
	Slide design	Designs are available as straight, curved / helter-skelter, wavy, open or enclosed each of which gives a different play experience.
Swings	Play type	The swing design usually offers opportunity for solitary or parallel play – see swing types below. Cooperative play is possible when children assist in initiating / maintaining momentum.
	Toddler	Younger children require additional support & have reduced risk awareness, these swings require parents or carers to lift a child in & out of the bucket seat, & to initiate & maintain the swinging motion.
	Traditional	These do not offer support for young children or those without good sitting balance.
	Nest / net	Usually circular, this design allows children to sit or lie on the swing surface offering support to those without sitting balance. The design also enables more than one child to be on the swing promoting social play.
	Supportive seats	Available for children who require full back support. Families may need to supply their own safety harnesses if these are missing. They are suitable for older children however this may place carers at risk due to the weight of the child during transfers on and off the seat.
	Wheelchair swings	Specialist swings are available enabling a wheelchair user to enjoy swinging.
	Other	Designs such as swing boats, log swings & rope swings offer the same motion with some designs such as log swings providing social play, & swing boats cooperative play.

		The configuration of sets of swings can promote social play & parallel play between those of different ages or abilities
Roundabout /swivel poles	Play type	Roundabout – cooperative / social play. Swivel poles – generally solitary play but dependent on design Cup – cooperative / solitary play (user is unable to rotate the cup without assistance).
	Access	*Level access*: the base is set into the ground so the transition between ground & standing platform is level – may be suitable for wheelchair use. *Low entry:* there is a small height difference between the ground & the standing platform *Stepped entry*: there is a significant height difference between ground & standing platform requiring users to step up on to the platform.
	Design	*Seated:* seats may be individual or bench type, those with backs offer a greater level of support, users may need to be lifted on. *Mixed*: spaces left for users to stand may be utilised by wheelchairs if level access. Mixed designs offer opportunity to experience rotation in different positions & allow for graded play according to ability & enables attempting of new challenges. *Cup*: This offers full body support but users have to be lifted in & out. *Pole:* most often used in a standing position but some designs have high level bars to hang from.
Climbing Frame	Play type	Social / solitary / cooperative/ parallel / imaginative
	Design	*Stand-alone* – dependent on design will offer different levels of challenge & risk *Modular*: dependent on design will offer different levels of challenge & risk. Links to different play experiences often offering different access options. Designs may lead to linear play experiences as users queue or follow others through the unit leading to parallel rather than social or cooperative play.
	Construction	*Wood*: wooden frames have poles with a wide diameter which may be difficult to grasp especially for younger users, designs are simpler. *Metal:* Can have more complex designs, the diameter of the poles can be smaller providing more accessible hand holds. Metal can heat up during hot weather making it uncomfortable to use. *Plastic*: generally, for younger users, simple designs without much height.
Tunnel	Play type	Solitary / social / imaginative
	Design	*Stand-alone* – at ground level, often larger size, can be a social space for imaginative play or a refuge & quiet space. *Modular*: Can be a link or access to a play element & can be set at different heights *Closed:* an easier design to negotiate for younger or less able users, alters light levels giving a different sensory experience. *Open / skeleton*: requires higher skill & agility to use, sense of risk & challenge, if set at height offer a hanging play experience as well as crawling.

	Construction	*Concrete:* ground level usually larger diameters, offers a different tactile experience. *Metal*: can be open or closed design, can become warm in hot weather. *Plastic:* generally used for younger age groups.
Bridge	Play type Design	Solitary / social / imaginative *Solid* – provides users with a sense of security *Chain bridge:* the movement provides a higher sense of risk & is more challenging for users *Standalone / modular*: can be an individual element or a link within a modular structure. Height provides a different perspective during play adding elements of risk & challenge
Rocker / seesaw / wobble board	Play type Design	Rocker: single seat – solitary, multi-seat – collaborative. Seesaw: collaborative Wobble board: solitary *Spring base*: often used for younger age groups. Offers a limited range of movement, can be single or multi user, can have themed designs (car, animal etc) can have a back support enabling younger children or those requiring support to use it. Side by side designs available *Traditional*: greater range of movement giving a greater sense of risk. Requires collaborative play. Design may include back supports. *Wobble board*: limited range of movement, requires balance if used standing, but can be used in a seated position.
Monkey bars / rings	Play type Design – bars Hoops	Solitary *Metal*: smaller diameter is easier to grip *Wood:* larger diameter *Fixed or mobile hoops* – mobile hoops attached to a structure by chains are a greater challenge.
Balance beam / stepping stones	Play type design	Solitary Ground level – inset, level access. Elevated: greater challenge & risk Mobile: balance beams /stepping stones suspended on chains offer greater challenge as they require more skill Guide rails offer the option of support for those who need it. Stepping stones of differing heights & set at different distances offer greater challenge for users.
Trim trails	Play type	Solitary Offer a selection of challenges / activities enabling users to select activities within their ability level or attempt new challenges
Activity Panels etc.	Play type	Cognitive / imaginative / sensory / social Mazes, puzzles, information boards etc. provide cognitive activities, ground based activities such as snakes & ladders, hopscotch & mazes are both physical & cognitive activities.

		Mirrors, kaleidoscopes, telescopes etc. give visual stimulation & interest. Rainfall tubes, chimes, drums etc. give auditory stimulation & interest. Note: these do not have to be specialist items of equipment – a stick & chain link fencing can be used to make sound, information panels can be designed by residents to reflect the local area.
Play structures	Play type	Imaginative / solitary / social Play structures can be specific (boat, house, castle etc) or generic allowing users to designate their purpose 3D structures also provide shelter & seclusion 2D structures work well in areas with limited space.
Sports & exercise	Play type	Social / solitary *Climbing nets & walls* provide varying degrees of challenge & a different height perspective. *Sports walls*: combine elements to promote activities such as football, cricket & basketball promoting alternative activities but require additional space. *Exercise equipment*: designed to promote adult exercise these are often situated within or adjacent to play parks. Observing adults being active promotes higher activity patterns in children, & close proximity enables those supervising children to exercise whilst their children play. Although designed for adults, children will use the equipment for play activities & this may lead to disputes if adults object.
Natural elements	Play type	Social / solitary / imaginative / cognitive Green areas with planting, water, boulders & trees provide interactions with nature which are beneficial for children. The different textures provide sensory experiences & observing nature teaches children about the seasons, animals & insects etc. Changes in level such as banks & ridges provide the element of height & provide opportunities to slide, & to roll giving full body feedback & an element of risk-taking. Grass banks can also provide areas for seating & rest.
Other	Play type	Solitary / cooperative Zip wires: sensation of controlled fall provides element of risk Giants steps: sensation of weightlessness Fireman's pole: upper body strength, element of risk.

6. Play value

Play parks should aim to provide a range of activities to appeal to a wide a range of users as possible. Having different levels of difficulty or methods of access support use by those with different abilities & provide opportunities to attempt challenges & take risks. (Note: items of play equipment will provide more than one aspect of play value e.g. a slide's play value will include solitary & linear play, climbing and sliding.)

Activity	No. of alternative access options / difficulty levels	Noting the number of alternative options both for access and for difficulty assists in identifying areas where play value can be added or where one aspect is over represented.
Swinging		Stimulates the vestibular system, movement can be linear or circular, swinging higher provides an element of risk-taking.
Sliding		Feeling of a modified fall, body position & speed provide element of risk-taking. Stimulates vestibular system & promotes balance.
Climbing		Stimulates proprioceptive receptors which provides spatial feedback. Promotes motor skills (balance, coordination etc.), upper & lower body strength & dexterity. Height provides an element of risk-taking.
Balancing		Stimulates awareness of body in space & balance when standing, promotes core body strength.
Crawling		Stimulates awareness of body in space, promotes motor skills. The increased body contact with surfaces gives a greater tactile experience.
Rocking		Stimulates the vestibular system & awareness of body in space.
Bouncing / jumping		Stimulates the vestibular system & awareness of body in space. Sense of weightlessness / falling, impact feedback. risk-taking.
Rotating		Stimulates the vestibular system & awareness of body in space & develops core strength.
Auditory		Creation of sounds & control of volume provide auditory stimulation. Interactive speech activities promote socialisation & communication skills.
Visual		Visual activities can promote eye tracking & colour recognition. Being outdoors provides sight lines & horizons which are at distance promoting eye health as high levels of screen time can result in short sight (myopia).
Tactile		Different tactile experiences (rough / smooth / hard / soft etc.) stimulate the sense of touch.
Cognitive		Activities such as puzzles & mazes promote problem solving, numerical games support mathematical skills.
Imaginative		Encourages social play which supports language acquisition, social skills such as turn taking & cooperation.
Solitary play		Supports self-reliance & confidence. Some children prefer solitary play or may need this to de-escalate when feeling agitated.
Social play		Assists in learning social rules & social interaction.

Cooperative play Parallel play Linear play Graded play activities		Activities which cannot be completed without additional players encouraging cooperation & interaction. Activities where children engage in the same activity without interacting such as swinging alongside each other. Activities during which children take their turn after queueing such as using a single width slide, bridge or tunnel. Different versions of the same activity which range from low challenge easy access to more complex challenging options.

Summary (including any suggested changes to add play value)

Appendix C1: 1st stage validation: participants

Participant	Age & Gender (M/F)	Parent / grandparent / carer of child below 12	Current user of validation play park	Previous user of validation play park	Experience working with children	Experience working with children with disabilities
PV1	20 M			✓		
PV2	52 F			✓		
PV3	46 F	✓	✓			
PV4	63 M	✓				
PV5	44 F	✓				✓
PV6	30 F	✓	✓		✓	
PV7	59 M			✓		
PV8	20 F					
PV9	28 M			✓		
PV10	43 F			✓	✓	
PV11	52 F	✓	✓	✓	✓	
PV12	57 F	✓				✓
PV13	46 F	✓		✓	✓	
PV14	39 F			✓	✓	
PV15	60 F			✓	✓	
PV16	43 F	✓				✓
PV17	18 F			✓		
PV18	49 F			✓		
PV19	48 F	✓	✓			✓

Participant	Age & Gender (M/F)	Parent / grandparent / carer of child below 12	Current user of validation play park	Previous user of validation play park	Experience working with children	Experience working with children with disabilities
PV20	36 F	✓	✓		✓	
PV21	44 F	✓	✓			✓
PV22	35 M	✓	✓			
PV23	24 F					✓
PV24	53 F	✓				✓
PV25	47 M	✓	✓			

Appendix C2: 1st stage validation: results

Section 1 Access	Same as researchers' evaluation	Differs from researchers' evaluation		Consistent with researchers' evaluation
Cycle lane	10	0		✓
Bus stop	9	2		
Pedestrian crossing	7	3		
Parking	10	0		✓
Cycle park	10	0		✓
Kerb features	8	2		
Traffic flow	6	4		
Surface finishes	3	7		
Lighting	5	5		
CCTV	10	0		✓
Toilets	10	0		✓
Seating	2	8		
Section 2 Entrance				
To access point	6	4		
Signage	10	0		✓
Access point: *Gate* *Hours open* *Colour & contrast*	9 10 5 7	1 0 5 3		✓
Ramps / steps	10	0		✓
Fencing	10	0		✓
Information	3	7		

Section 3 Internal access				
Surface *Grass* *Wet pour rubber* *Rubber tiles*	 10 10 2	 0 0 8		 ✓ ✓
Paths	10	0		✓
Topography	4	6		
Section 4 **Non-play equipment**				
Lighting	8	2		
Seating	10	0		✓
Shade	4	6		
Waste bin	10	0		
Section 5 Play equipment (found on site)	Type of play Consistent with researcher / differed	Did not answer	Equipment design Consistent with researcher / differed	
Slide	2/5	3	5 / 5	
Swings	1/5	4	6/4	
Roundabout	2/4	4	3/7	
Climbing frame	2/5	3	8/2	
Tunnel	2/4	4	8/2	
Bridge	1/5	4	4/6	
Monkey bars*	n/a	n/a	9/1	
Play structure	2/8	0	2/8	
Sport equipment ~	9/1	0	10/0	

Natural elements*	9/1	0	9/1	
*Not identified by researcher but listed by participant, ~ Identified as a play option by participant				
Section 6 Play value	Number of options Consistent with researcher / differed	Number of alternative options^ Consistent with researcher / differed		
Swinging	7/3	1/9		
Sliding	8/2	1/9		
Climbing	6/4	7/3		
Balancing	1/9	8/2		
Crawling	7/3	3/7		
Rocking	6/4	2/8		
Bouncing	9/1	0/10		
Rotating	8/2	1/9		
Auditory	8/2	9/1		
Visual	8/2	9/1		
Tactile	5/5	4/6		
Cognitive	8/2	1/9		
Imaginative	6/4	3/7		
Solitary	5/5	1/9		
Social	5/5	2/8		
Cooperative	2/8	3/7		
Parallel	2/8	4/6		
Linear	1/9	5/5		
^Where no indication made by participant recorded as differing from control evaluation				

Appendix D Interview schedule

Interview schedule: (Insert location)			
Interviewee(s)			
Name		Date	
Role		Consent to record	Yes / No

Introduction:		
Introduce self & role	Interview scope	
	During the interview, I would like to discuss the following topics:	-The development of the play park - How you became involved - Others involved - Issues – during and ongoing - Accessibility and usability - Play value

Background to the site:

I would like to know a little about the site itself:

Use of site	**Management**	**Funding**
Can you tell me if there is a specific **age** range or **user group** designated for the play park?	❖ **Ownership** – who has overall responsibility for the park? ❖ **Management** – do they provide the management of the upkeep of the park?	❖ Council ❖ Fundraising ❖ Lottery ❖ Donations ❖ Other ❖ Ongoing costs

Can you please tell me if this has **changed** over time.	❖ **Funding** – How was the park funded in the first instance? How is the park funded now? How will future developments be funded? ❖ **Additional support** – do you have any informal support groups / committee's e.g. 'Friends of….'	
Notes:		

Development group members:

Could you please outline the make-up of the play park development group:

Formal	Informal	Professional
❖ Parish Council ❖ Town Council ❖ Site owner – e.g. developer ❖ Police	❖ Local residents ❖ Local groups – e.g. toddler / youth group ❖ 'Friends of' group ❖ Individuals	❖ Play park equipment provider design service ❖ Landscape designer ❖ Therapists e.g. OT ❖ Play specialist
Other:	Did the group structure remain the same throughout the development process? Who initiated the process / idea of developing the play park? Why?	

Consultation:

Could you describe any consultations made in regard to the play park?

Timing / type	Methods	User groups
❖ When was the consultation carried out? ❖ Were additional consultations completed? ❖ Health and Safety ❖ Access audit	❖ Open meeting ❖ Questionnaire ❖ Interviews ❖ Survey ❖ Focus groups	❖ Parents ❖ Children ❖ Toddler groups ❖ Child minders ❖ Schools ❖ Grandparents
Notes:	Would you have appreciated any additional support / tools to assist with the consultation process?	

Choice of equipment / facilities

How was the equipment choice made?

Existing	New provision	Decision making process
❖ Meets current safety standards? ❖ Maintenance ❖ Issues	❖ Direct replacement ❖ Traditional design ❖ Modern design ❖ Variety of play type	❖ Group / catalogues ❖ Group / site visits ❖ Consultation ❖ Users ❖ Sales rep /designer
Notes:	Site visits with children Photo's Wish lists Age groups	

Interactions with equipment suppliers:

Did you use a design service offered by an equipment supplier?

Design service	Self-designed	
❖ Part of the original plan? ❖ Added in part way? ❖ Why was this decision made? ❖ Did you ask for designs from one or more companies? ❖ Advantages ❖ Disadvantages ❖ Impact on budget ❖ Reflection on end result	❖ Why was this choice made? ❖ Cost implications ❖ Wider choice? ❖ Advantages ❖ Disadvantages ❖ Reflection on end result	
Notes		

Accessibility & Usability

What do you think is important for accessibility? What do you think is important for usability? How have these aspects been addressed within the design?

Accessibility	Usability	User groups
❖ What do you think is meant by accessibility? ❖ Have you had any formal training in this area? ❖ What aspects of your site do you think add to its accessibility? ❖ Can you think of anything you would like to add to improve access? ❖ Legislation	❖ What do you think is meant by usability? ❖ What aspects of your site do you think make it more usable? ❖ Can you think of anything you would like to add to improve access?	❖ Which groups do you think the play park is designed for? ❖ Which other groups were considered other than children? ❖ **Did you consider?** ❖ Older people? ❖ Physically disabled children? ❖ Autistic / ADHD ❖ Visual impairment

Notes:	Additional: seating – different types Wayfinding – including colour contrast Information boards – site / equipment Specialist equipment

Play Value

What do you think are the types of play children enjoy in a play park?

Active	Passive	Cognitive / imaginative
❖ Running ❖ Jumping ❖ Rotating ❖ Rocking ❖ Balancing ❖ Hanging / upper body ❖ Climbing ❖ Sliding ❖ Crawling	❖ Sitting ❖ Lying ❖ Mirrors ❖ Auditory	❖ Puzzle board ❖ Hopscotch ❖ Maze ❖ Play structures ❖ O's & X's

Appendix E 1: Case study site demographics

The case study site selection did not include criteria based on area demographics however, during the identification process note was taken of location to ensure the case study sites reflected urban, town, village and rural settings. Table E.1 compares the demographic data from the 2011 Census based on the play park postcode. Housing types and populations vary within postcode areas and therefore the Index of Multiple Deprivation (IMD) rank is included which provides an overview to provide a comparator. This cannot indicate the attributes of an area, as within each score there are a number of factors which combine. For example, CSS4 and CSS8 are located within the same county and district, CSS4 having IMD 34 points higher, however reviewing 'barriers to services' and 'living environment' scores for these two postcodes highlights CSS4 as having more barriers to services and CSS8 providing a better living environment.

CSS	*1* *(rural)*	*2* *(urban)*	*3* *(town)*	*4* *(village)*	*5* *(urban)*	*6* *(town)*	*7* *(urban)*	*8* *(village)*
Population (2011)	1621	1219	1347	1923	1307	1631	1180	1693
Families with dependent children	72	118	142	127	129	142	132	176
Lone parent families	20	22	23	36	44	19	20	40
Employed %	49	50	49	55	64	47	54	42
Area (hectares)	2990	98	42	4764	35	268	66	67
Density per hectare	1	13	32	0	49	6	18	25
Housing detached	396	176	205	464	20	442	240	349
Housing semi-detached	134	228	291	236	25	196	287	354
Housing Terrace	105	96	85	60	271	46	24	99
Housing Flat	21	24	19	16	697*	33	7	19
IMD rank	96	69	56	84	79	83	91	50

*Includes tower blocks

Table E.1 Case study site demographic information based on site postcode
(2011 census)
(adapted from: www.UKlocalarea.com)

Appendix E2: Equipment provision and play type across case study sites.

Equipment	Case study site							
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Swing	6	5	7	8	9	5	4	6
Slide	1	3	1	3	9	2	1	3
Climbing frame / unit	6	3	1	5	8	4	6	5
Balance Beam / bridge	1	3	3	1	4	7	22	7
Tunnel	0	1	0	1	3	2	2	0
Rocker / seesaw	3	1	3	1	3	2	1	3
Trampoline	0	1	0	0	0	0	0	0
Roundabout / rotation pole / disc	0	2	7	4	2	1	1	2
Monkey bars	2	1	1	0	1	4	0	0
Auditory	0	2	0	0	1	2	0	0
Visual	1	3	0	1	0	1	2	1
Activity panel / play structure	3	2	0	3	4	2	8	3
Interactive	3	1	0	0	1	1	0	0
Specialist	3	8	1	0	0	0	0	1

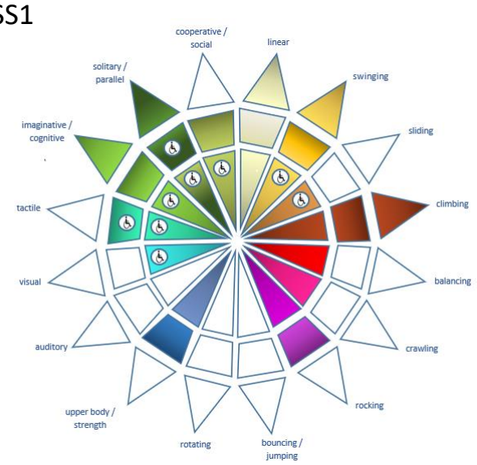
Play type	Case study site							
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Seated activity (ies)	14	12	9	10	21	5	5	10
Solitary / parallel play	15	25	9	9	33	5	25	7
Co-operative / Social play	2	2	5	5	7	3	2	3
Linear play	3	2	3	4	9	6	4	4

Appendix E3: Frequency of play activity per case study site

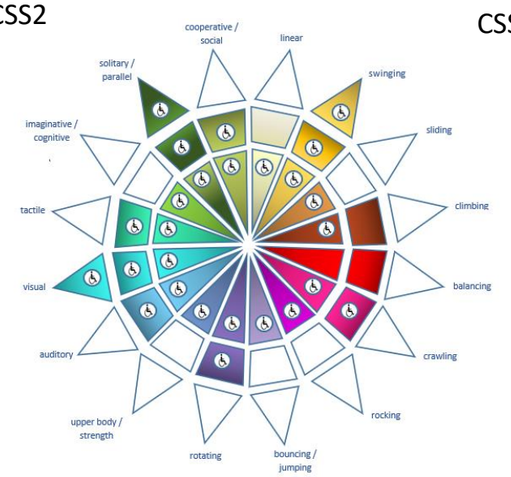
Play activity	Frequency in case study site							
	1	***2***	***3***	***4***	***5***	***6***	***7***	***8***
Swinging	3	4	4	4	6	3	2	5
Sliding	1	1	1	3	5	2	1	2
Climbing	3	3	1	3	7	5	3	2
Balancing	1	2	2	1	6	4	7	6
Crawling	0	1	0	1	4	2	1	0
Rocking	2	1	4	1	2	2	1	2
Bouncing / jumping	0	1	0	0	0	0	0	0
Rotation	0	2	6	4	2	1	1	2
Strength / upper body	2	1	0	0	1	3	0	0
Auditory	0	2	0	1	1	2	0	0
Visual	1	1	0	1	0	0	0	1
Interactive / tactile	3	1	0	0	1	1	0	0
Sitting	9	6	9	10	17	5	7	10
Cognitive / imaginative	7	1	0	3	5	5	2	3
Co-operative / social	4	4	5	5	7	4	4	6
Solitary / parallel	10	10	9	11	16	18	19	7
Linear	2	3	3	9	10	12	5	4

Appendix E4: Play value infographics for all main investigation case study sites

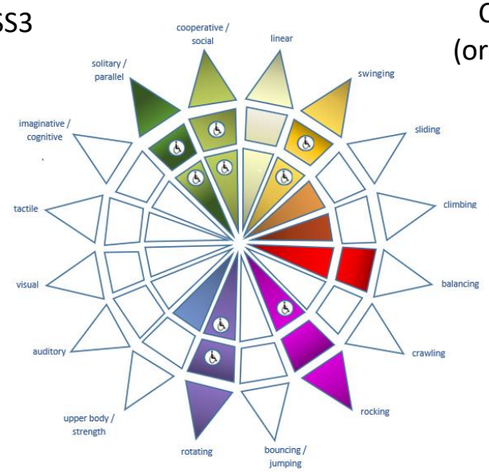
CSS1



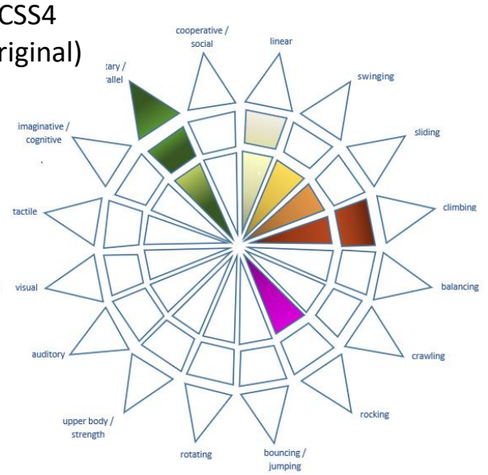
CSS2



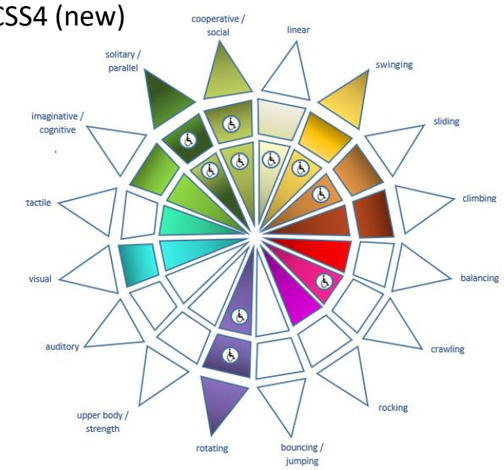
CSS3



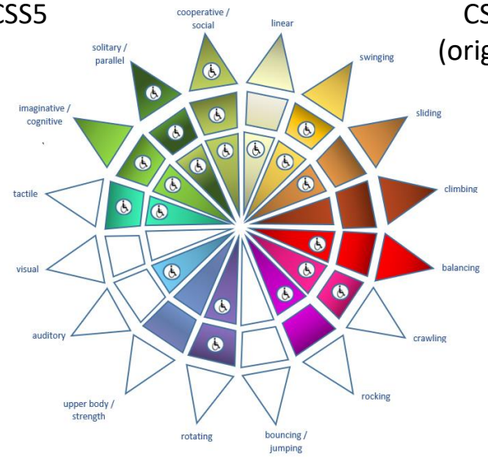
CSS4 (original)



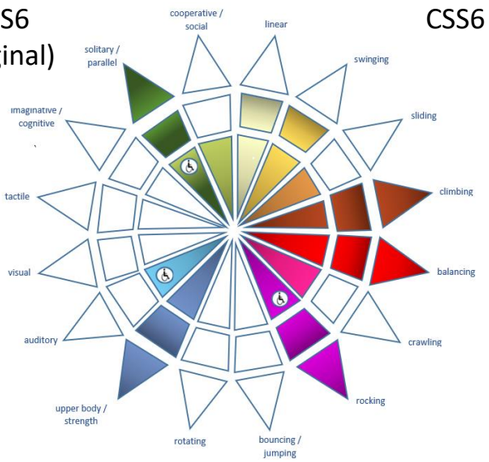
CSS4 (new)



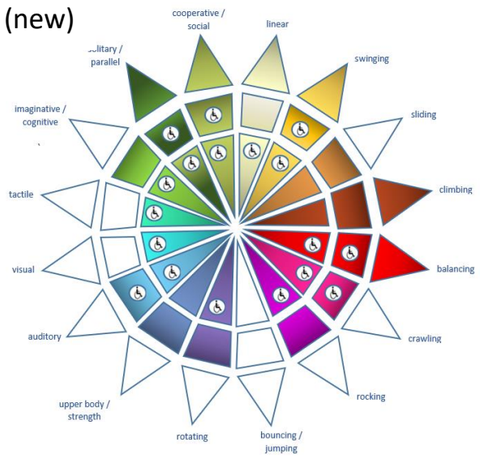
CSS5



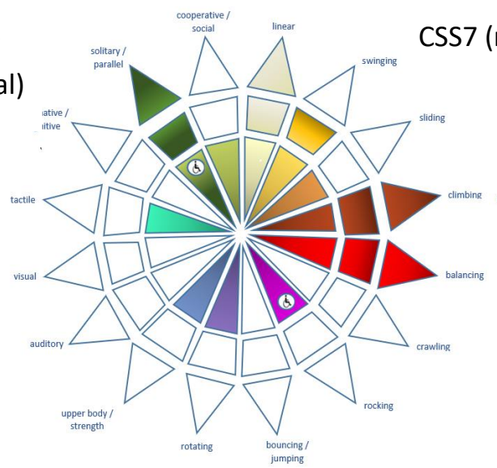
CSS6 (original)



CSS6 (new)



CSS7 (original)



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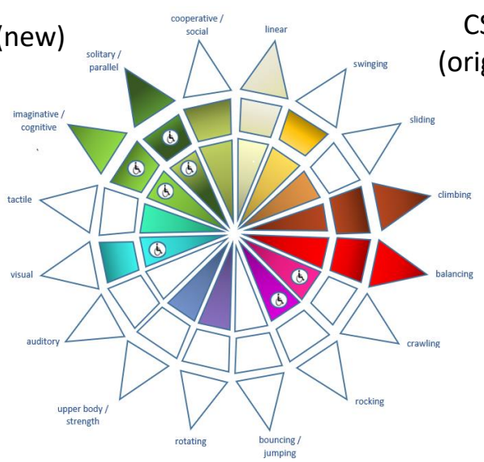

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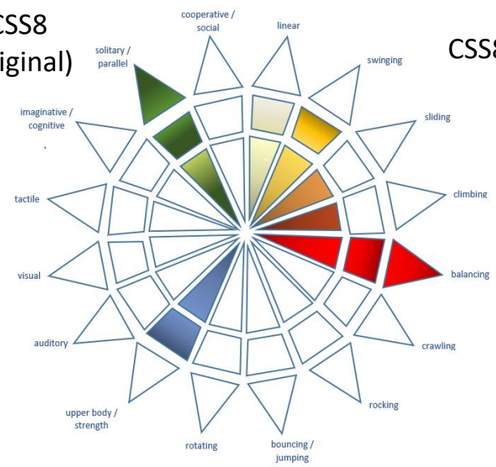
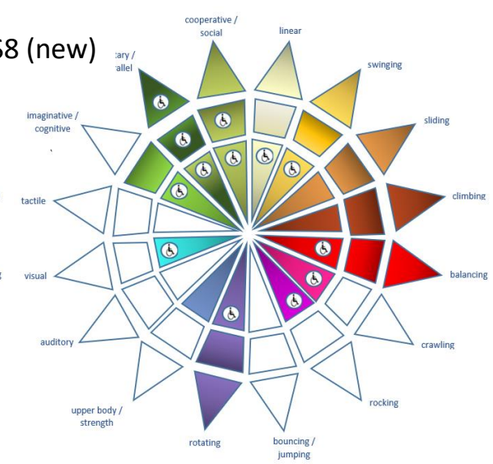


CSS8 (new)



Appendix E5: Traffic flow data at case study sites

Where play parks are bounded by or close to roads the type of road, speed limit, traffic flow and support for pedestrians to cross are key.

Due to the distances involved it was not possible for repeated visits to case study sites to note traffic flow at different times on different days of the week. Therefore, traffic flow data was collected on a week day at between 10 and 11am and between 4 and 5pm. This avoided peak traffic flow at rush hour and reflected times when use of play parks was likely to occur. None of the traffic surveys took place on bank holidays or outside of school term times. The data recorded in Table E.2 for traffic flow is an average of the results from the two survey periods.

CSS	Road class	Speed limit	<10	<25	<50	<100	>100	Pedestrian crossing point (s) within 250m of entrance
1	B	50			✓			None
2	A	40					✓	Bridge, pedestrian island
3	U*	30		✓				None
4	U	30	✓					None
5	U	30			✓			Pedestrian island
6	U	30		✓				None
7	A	40				✓		Pelican crossing, pedestrian island
8	C	30		✓				None

(* U – unclassified road)

Table E.2 Road details and traffic flow data

Appendix F1: Ethical approval by CST Research Ethics Panel

Academic Audit and Governance Committee

College of Science and Technology Research Ethics Panel (CST)

University of Salford MANCHESTER

To **Ruth Parker (and Rita Newton)**

cc: **Professor Hisham Elkadi, Head of School of SOBE**

From **Nathalie Audren Howarth, College Research Support Officer**

Date **20/02/2015**

Subject: **Approval of your Project by CST**

Project Title: **Creating play parks to promote use by disabled children**

REP Reference: **CST 14/57**

Following your responses to the Panel's queries, based on the information you provided, I can confirm that they have no objections on ethical grounds to your project.

If there are any changes to the project and/or its methodology, please inform the Panel as soon as possible.

Regards,

Nathalie Audren Howarth
College Research Support Officer

Appendix F2: Researcher introduction letter (main investigation)

[Date] (Headed paper used)

Dear [name of individual],

My name is Ruth Parker, I am a PhD Candidate undertaking research at the University of Salford. My research investigation is titled: "An investigation of the influence of stakeholder experience on the usability of local play parks."

The purpose of this investigation is to identify how the prior experiences of those involved with planning and providing local play parks influences the accessibility, usability and play value of a play park. It is intended that following this investigation a tool will be created which will assist those creating or re-furbishing play parks to assess the effectiveness of their planned park or current provision.

I am interested in hearing your views on the decisions made in regard to the play park at [name of play park site].

If you agree to participate I would like to meet with you, either at the play park or at a more convenient location to as you a few questions about how decisions were made and the project developed.

The type of questions I would like to ask are:

1. What made you become involved with the development of the play park?
2. Have you any experience of this type of project before?
3. What do you think are the most important considerations when planning a play park?
4. How can a play park be made more accessible to users with a disability?

Any information gathered would not include personal data such as your name and address and it would be stored securely. As with most research projects the data collected could be published in the future and be available to others. However, you would not be identified, as pseudonyms will be used both for individuals and for locations.

This study forms a part of my investigation and it is hoped that this will in the future assist others in their projects to provide children with local play parks which are effective in meeting all users' needs and provide good play experiences.

CONFIDENTIALITY: The confidentiality aspects of this investigation have been agreed by the **University of Salford Research Ethics Committee.** The information recorded will only relate to your involvement with the group developing the play park. No individual will be identified in any way and information will be recorded securely and only accessed by the main researcher.

I will contact you in the near future to see if you would be happy to participate in this investigation. In the meantime, if you have any questions, would like additional information or would like this letter in an alternative format I can be contacted on [phone number] or by email [contact email address].

Kind regards

Ruth Parker

Appendix F3: Researcher introduction letter (PPET validation)

[Date] (Headed paper used)

Dear [name of individual],

My name is Ruth Parker I am a PhD Candidate undertaking research at the University of Salford. My research investigation is titled: "An investigation of the influence of stakeholder experience on the usability of local play parks."

The purpose of this investigation is to identify how the prior experiences of those involved with planning and providing local play parks influences the accessibility, usability and play value of a play park. As part of this investigation a tool has been created which will assist those creating or re-furbishing play parks to assess the effectiveness of their planned park or current provision. I would to like to review how effective this evaluation tool is by comparing different results from the play park at [name of play park site].

If you agree to participate I would like you to complete a copy of the evaluation tool which I have attached to this letter so you can see what type of questions are asked.

Any information gathered would not include personal data such as your name and address and it would be stored securely. As with most research projects the data collected could be published in the future and be available to others. However, you would not be identified, as pseudonyms will be used both for individuals and for locations. This study forms a part of my investigation and it is hoped that this will in the future assist others in their projects to provide children with local play parks which are effective in meeting all users' needs and provide good play experiences.

CONFIDENTIALITY: The confidentiality aspects of this investigation have been agreed by the **University of Salford Research Ethics Committee.** The information recorded will only relate to your involvement with the group developing the play park. No individual will be identified in any way and information will be recorded securely and only accessed by the main researcher.

I will contact you in the near future to see if you would be happy to participate in this investigation. In the meantime, if you have any questions, would like additional information or would like this letter in an alternative format I can be contacted on [phone number] or by email [contact email address].

Kind regards

Ruth Parker

Appendix F4: Participant consent form (main investigation)

CREATING ACCESSIBLE / USABLE PLAY PARKS

Consent form

This consent form is designed to check that you understand the purpose of the investigation, that you are aware of your rights as a participant and that you are willing to take part.

Please tick as appropriate

	YES	NO
I have read the information letter describing the study	☐	☐
I have received sufficient information about the study to enable me to decide if I wish to take part	☐	☐
I understand that I am free to decide not to take part	☐	☐
I understand that I can withdraw from the study at any time and do not have to explain why	☐	☐
I understand that the interview will be recorded and that that I give my permission for this.	☐	☐
If No: I do not wish to have the interview recorded but agree to the researcher making written notes	☐	☐
I understand that I can ask for the interview and recording to be stopped at any time and do not have to explain why	☐	☐
I am aware that I can ask for additional information about the study from the researcher	☐	☐
I understand that the information collected during the study will be treated as confidential	☐	☐
I am aware that no participant in the study, including myself, will be identifiable when the information is recorded	☐	☐

	YES	NO
I am aware that the results of the study may be published in professional journals and / or used for teaching purposes with anonymity of participants preserved	☐	☐
I am happy with the information provided and agree to take part in the study	☐	☐
Signature	**Date**	
Name (block capitals please)		
I confirm that quotations from the interview can be used in the final research report and other publications / presentations in connection with this investigation. I understand that no identifying information will be included to ensure that no individual participant can be identified in such a report.	**Yes**	**No**
Signature	**Date**	
Name (block capitals please)		
Declaration of Researcher		
I have explained the purpose of the investigation, answered any questions raised and believe that the participant named above understands and is freely giving consent to participate		
Signature	**Date**	
Name (block capitals please)		
One copy of this form to be retained by the researcher and one copy to be given to the participant		
Researcher contact details:		

Appendix F5: Participant consent form (PPET validation)

CREATING ACCESSIBLE / USABLE PLAY PARKS

Consent form

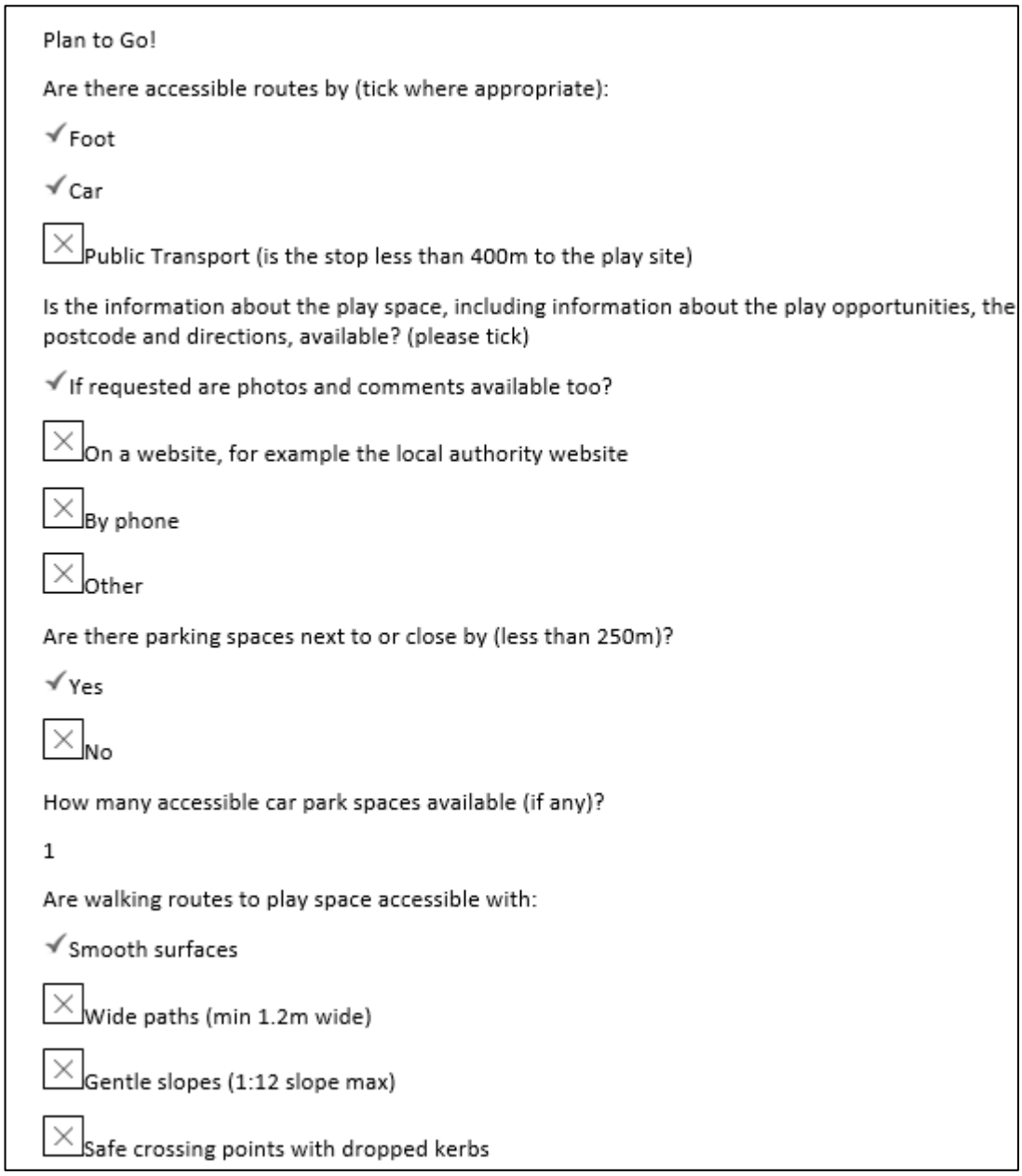
This consent form is designed to check that you understand the purpose of the investigation, that you are aware of your rights as a participant and that you are willing to take part.

Please tick as appropriate

	YES	NO
I have read the information letter describing the study	☐	☐
I have received sufficient information about the study to enable me to decide if I wish to take part	☐	☐
I understand that I am free to decide not to take part	☐	☐
I understand that I can withdraw from the study at any time and do not have to explain why	☐	☐
I understand that the evaluation form will be retained by the researcher and that that I give my permission for this.	☐	☐
If No: Thank you for considering participating in the investigation but a copy of the evaluation form is required to provide data. Please either return the blank evaluation form to the researcher or destroy it.	☐	☐
I am aware that I can ask for additional information about the study from the researcher	☐	☐
I understand that the information collected during the study will be treated as confidential	☐	☐

	YES	NO
I am aware that no participant in the study, including myself, will be identifiable when the information is recorded	☐	☐
I am aware that the results of the study may be published in professional journals and / or used for teaching purposes with anonymity of participants preserved	☐	☐
I am happy with the information provided and agree to take part in the study	☐	☐
Signature	**Date**	
Name (block capitals please)		
I confirm that quotations from the interview can be used in the final research report and other publications / presentations in connection with this investigation. I understand that no identifying information will be included to ensure that no individual participant can be identified in such a report.	**Yes**	**No**
Signature	**Date**	
Name (block capitals please)		
Declaration of Researcher		
I have explained the purpose of the investigation, answered any questions raised and believe that the participant named above understands and is freely giving consent to participate		
Signature	**Date**	
Name (block capitals please)		
One copy of this form to be retained by the researcher and one copy to be given to the participant		
Researcher contact details:		

Appendix G Example sections of the Inclusive Play evaluation tool



Plan to Go!

Are there accessible routes by (tick where appropriate):

✓ Foot

✓ Car

☒ Public Transport (is the stop less than 400m to the play site)

Is the information about the play space, including information about the play opportunities, the postcode and directions, available? (please tick)

✓ If requested are photos and comments available too?

☒ On a website, for example the local authority website

☒ By phone

☒ Other

Are there parking spaces next to or close by (less than 250m)?

✓ Yes

☒ No

How many accessible car park spaces available (if any)?

1

Are walking routes to play space accessible with:

✓ Smooth surfaces

☒ Wide paths (min 1.2m wide)

☒ Gentle slopes (1:12 slope max)

☒ Safe crossing points with dropped kerbs

Figure G.1 Section of an early version of PiPA tool

(Accessed 16.09.2014 InclusivePlay.com)

This checklist can be used to audit an existing playspace to identify the gaps in provision or barriers to accessibility in the landscape. PiPA is also a useful tool to inform a new play space design to ensure all children benefit from the new provision. All play areas that meet the key criteria will be eligible for the Lollipop sign and listing on the PiPAMap to help families find the right provision for them.

PiPA
PLAN INCLUSIVE PLAY AREAS

Site Details

Site Name

Date

1. Plan to Go!

A. Are there accessible Routes by:	Yes	No	Details
1. Foot	○	○	
2. Car	○	○	
3. Public Transport	○	○	
B. Is the information about the play space, including information about the play opportunities, the postcode and directions, available?	○	○	
1. Is information available online?	○	○	
2. Are photos and comments available?	○	○	
3. Information available by phone?	○	○	
4. Other	○	○	

Top Tip! If all criteria are met within this assessment, the play area will be eligible for PiPA status, and added to the online PiPA Map complete with address, photos and visitor comments

C. Are there parking spaces next to or close by (less than 250m)?	○	○	
D. Are there allocated accessible parking spaces available? If yes how many?	○	○	
E. Are walking routes to play space accessible with:			
1. Smooth Surfaces	○	○	
2. Wide paths (min 1.2m wide)	○	○	
3. Gentle Slopes (1:12 slope max)	○	○	
4. Safe crossing points with dropped kerbs	○	○	

Figure G.2 Section of current PiPA

(InclusivePlay.com)

Appendix H: Development of the play value infographic

Data resulting from investigations must be presented in a clear manner enabling those viewing it to understand what is being conveyed and the significance this has.

The data to be presented in regard to play value and accessible play is quantitative in nature, but is affected but the subjective nature of the analysis of a play park by the individual completing an evaluation. Their experience and understanding of accessibility and usability, of disability and own play preferences will inform their interpretation of how effective a play park provision is.

The requirement to present nominal data, the presence or lack of a play option, did not require the use of specialised software. Collating data in Excel spreadsheets enables the presentation of data in a number of ways therefore these were explored for the presentation of data in the first instance (Figures H.1 to H.4).

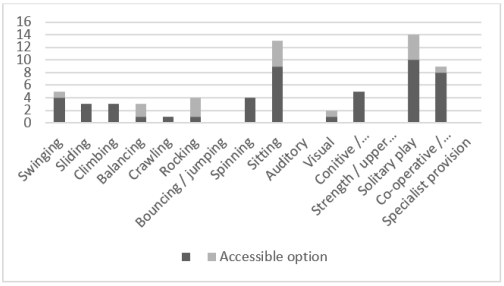


Figure H.1

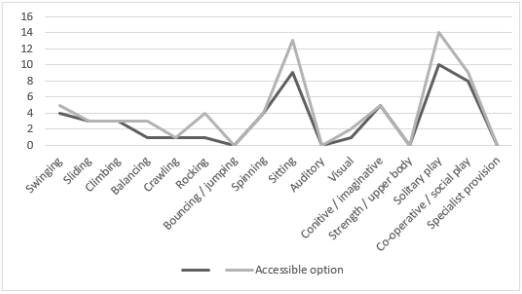


Figure H.2

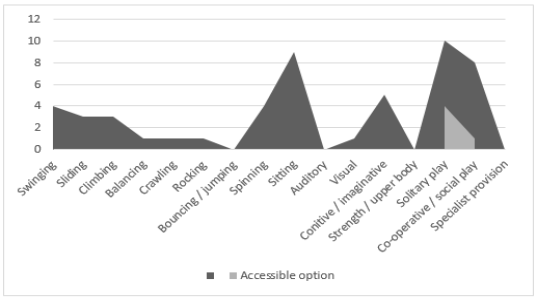


Figure H.3

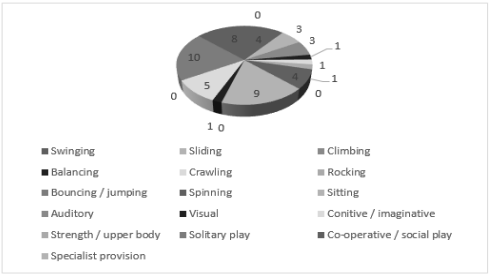
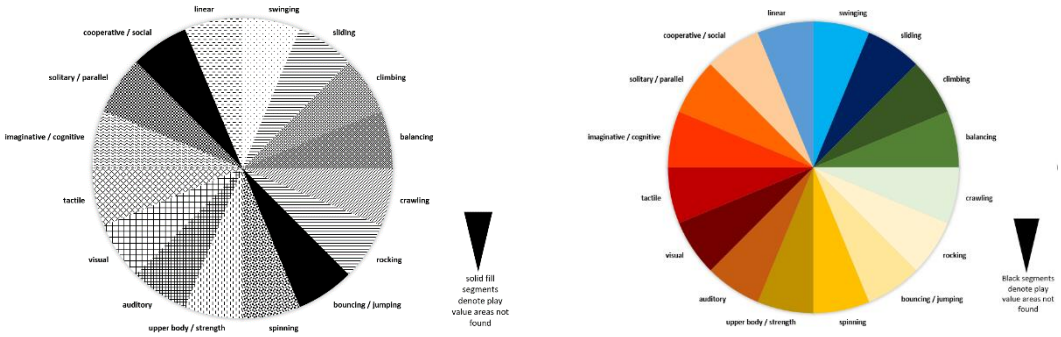


Figure H.4

Examples of data charts created through Excel

Data presentation through bar, line and pie charts was reviewed. Pie charts (Figure H.4) were considered the most effective option in presenting the data representing the presence of items supporting different play activities. This however did not clearly demonstrate the absence of play options.

Considering how to illustrate both the presence and absence of play options the use of a circle divided into segments was further explored (Figures H.5 & H.6) the use of colour more visually appealing; this design offering the option of using blank or black segments to denoting the lack of a play option.



Figures H.5 & H.6 Presentation of data through segmented circles

Reviewing the colour wheel pie chart further revision was required to increase clarity through separation of the segments resulting in the design in Figure H.7, however this design cannot be generated through Excel.

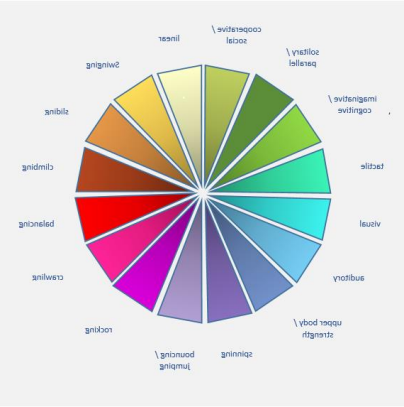


Figure H.7 Segmented circle infographic

Whilst completion of this chart illustrated the presence / absence of play opportunities, it's binary nature did not facilitate illustration of play park sites where more than one play option category was identified. Figure H.8 illustrates the subsequent revision enabling indication of two play options for each category. Review of the data from the case study sites identified that an infographic to illustrate play value reflecting provision required the addition of a third segment for each play option (Figure H.9).

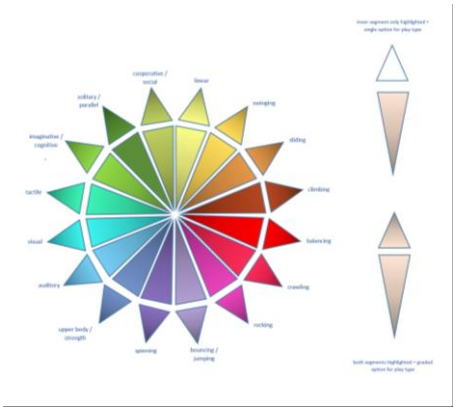


Figure H.8 Infographic: 2 play options

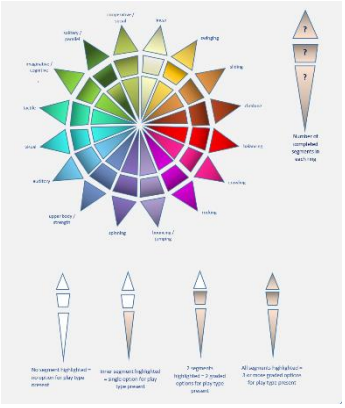


Figure H.9 Infographic: 3 play options

This investigation considered accessible play as a vital aspect of play value therefore a further addition was made to the infographic, a symbol using a universally recognised image (Figure H.10) to denote presence of an accessible play option was incorporated into the design (Figure H.11) of the infographic used in this thesis.

Figure H.10
Symbol identifying accessible play option

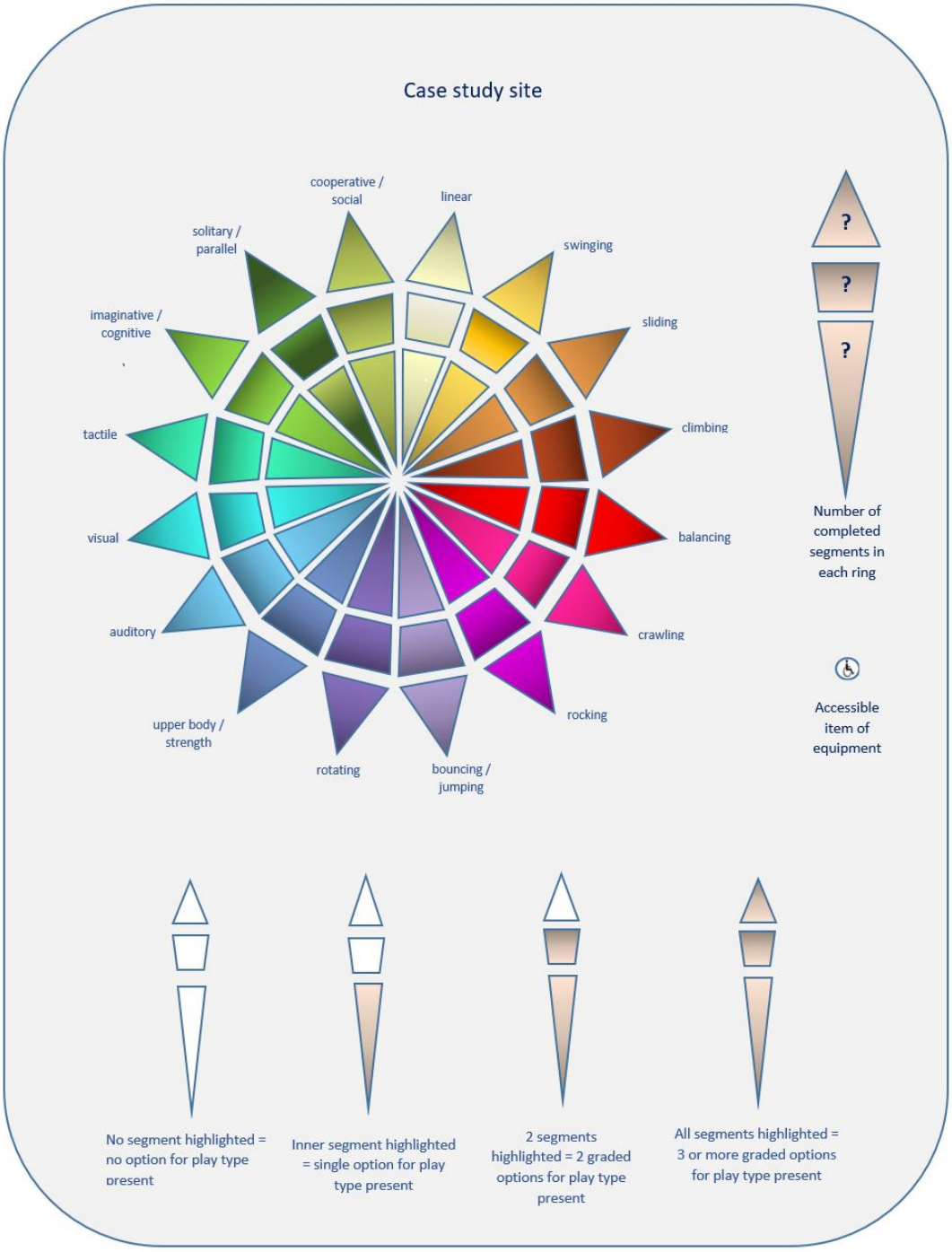
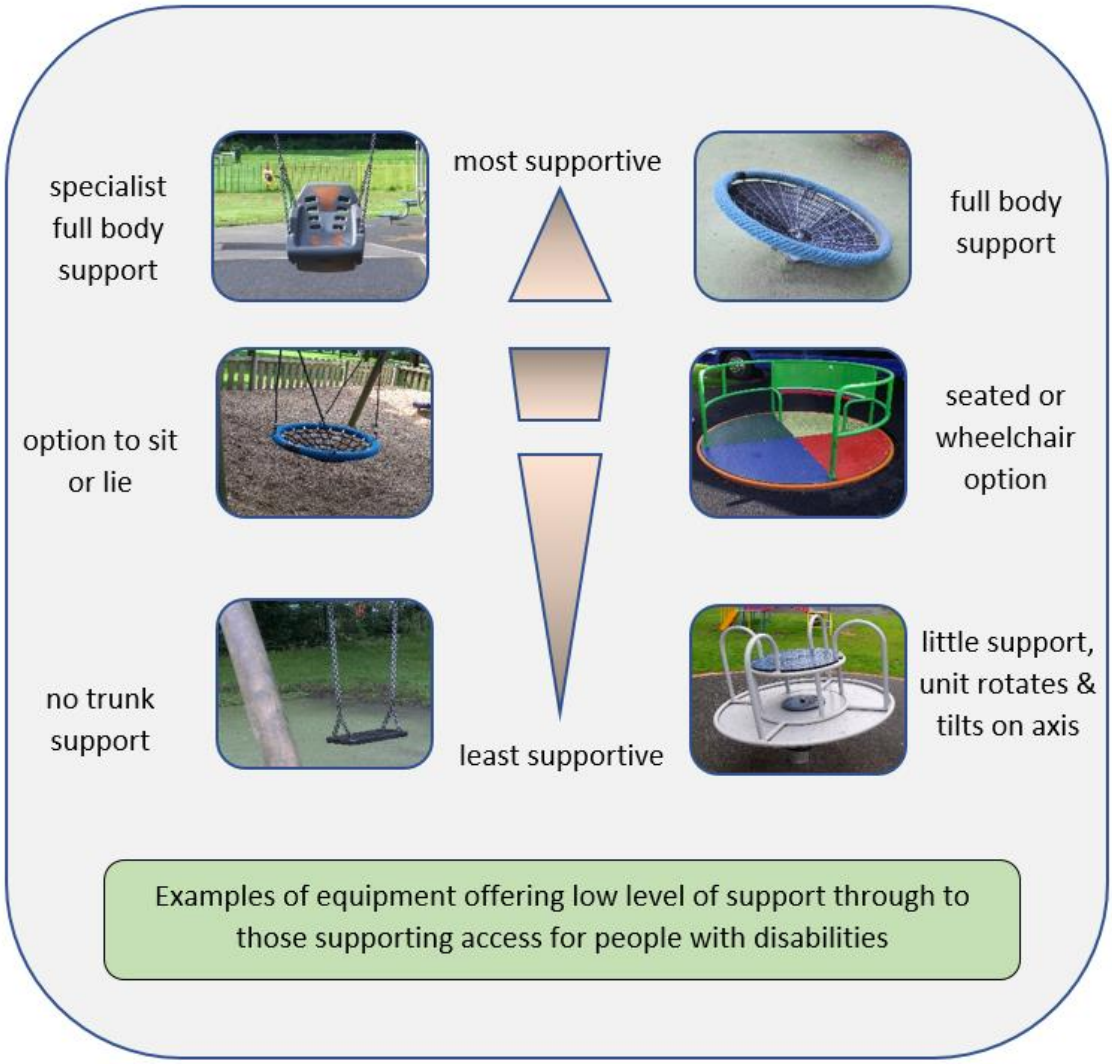


Figure H.11 Final version infographic

Appendix I: Illustration of 'graded' play equipment

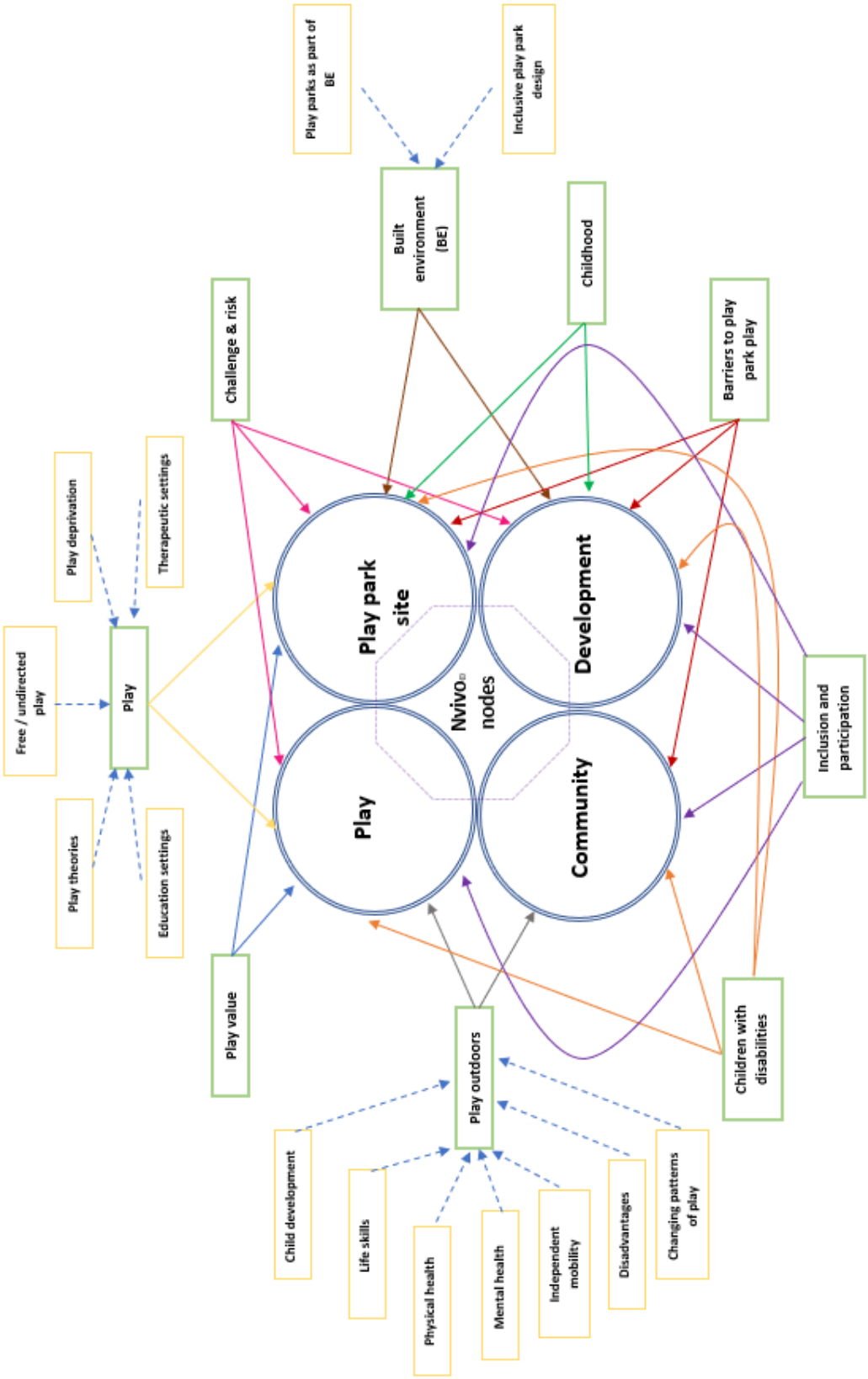


Appendix J: Summary of initial investigation

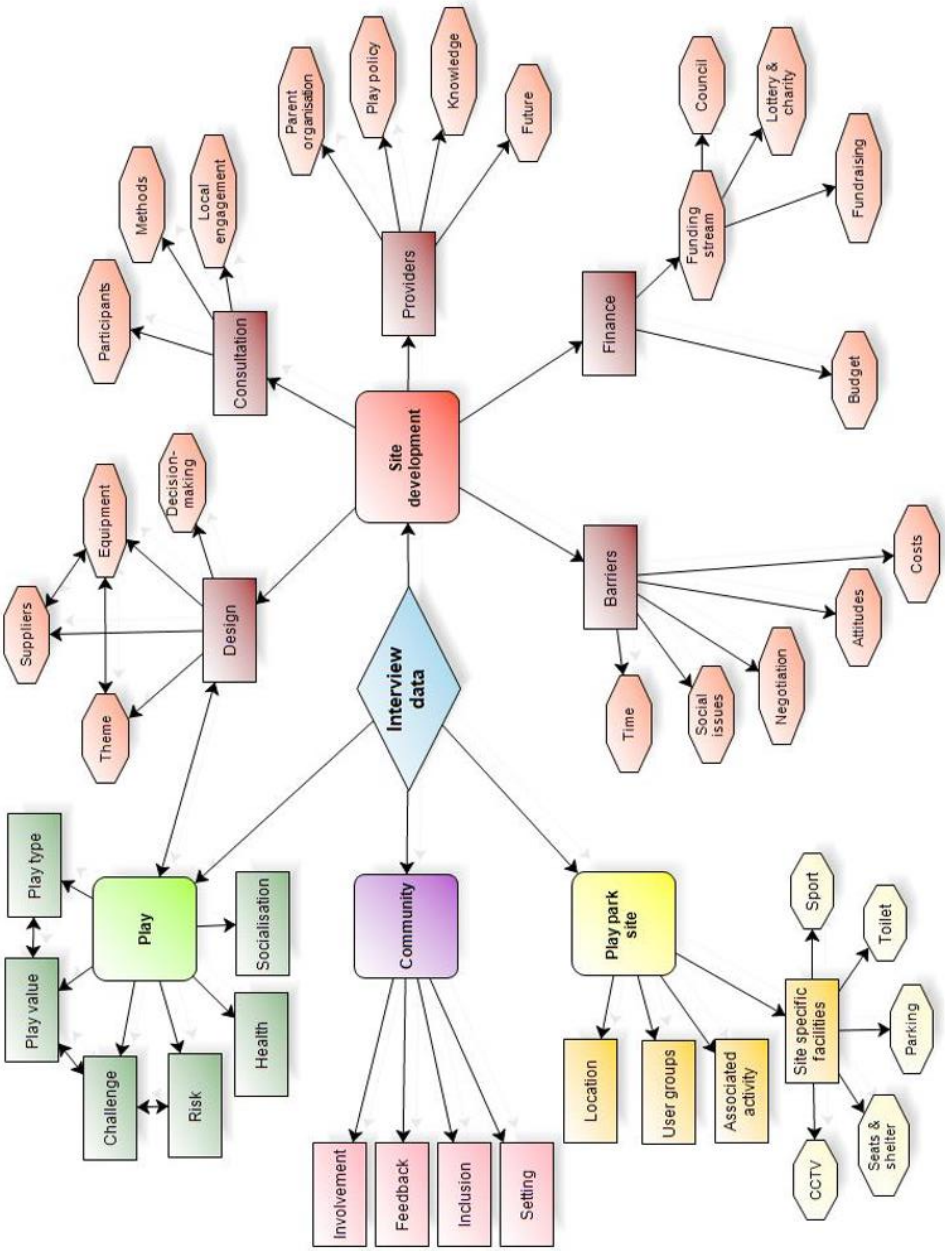
	Location type	Parking	Traffic flow	Number of Fixed play elements	Specialist equipment	Activity options	Seating provision	Seating options	Comments
1	Rural	N	Medium	6	0	7	1	1	Population approx. 600, no school or shop facilities in village. Accessed across grass. Adjacent to football pitch
2	Urban	N	Low	17	0	6	2	1	Population approx. 12,000, schools, shops and other facilities. One of 5 play parks within town, within larger green area – lake, woodland, football pitch, popular with joggers and cyclists. Pathways lead to the play area but not within. Parking only in residential streets.
3	Rural	Y	Medium	8	0	6	4	2	Population approx. 4,000, adjacent to parking area (x 2 accessible parking bays) and football pitches. Close to school and outdoor swimming pool (Summer months only). Well used at pick up / drop off times.
4	Urban	N	High	12	1	7	1	1	Population approx. 3,500. Busy market town, adjacent to route to town centre. Single access point. Supportive swing.
5	Urban	Y	Low	11	5	9	3	2	Population approx. 12,000, schools, shops and other facilities. One of 5 play parks within town, adjacent to housing estates, parking available at town council offices. On edge of green area with steep slope leading to lower level where skatepark is situated. Paths to the play area and through green space. Level access roundabout. Large slide set in to steep slope.
6	Rural	Y	Low	12	0	8	5	3	Population approx. 700, no facilities in village. On edge of village in field. Parking on unmade track. 2 areas with wood chip contained by wooden upstands. Wooden play structures.
7	Urban	Y	Low	16	0	9	8	2	Population approx. 4,000. Market town, shops, schools and leisure facilities. Park adjacent to large caravan park and outdoor swimming pool (Summer months only). Caravan site office next to park but do not oversee it.
8	Rural	N	Low	6	0	5	2	1	Population approx. 4,000. Set within housing estate next to green area with pond. Fully fenced and secured overnight.
9	City	Y	High	1	0	1	0	0	Population approx. 130,000. Adjacent to main route into city below a bridge. Close to shopping area and area of terraced housing – mixed residency with high percentage of houses of multiple occupancy. Evidence there were more items of equipment which have been removed. Parking available adjacent to shops but with uneven ground between this and the park. Broken glass and rubbish across site.
10	Rural	Y	Medium	7	0	9	4	2	Population approx. 1,600. On edge of village with a new housing development ongoing across the road. Adjacent to tennis court and football pitch. On main route into village. Off road parking area alongside park.

	Location type	Parking	Traffic flow	Number of Fixed play elements	Specialist equipment	Activity options	Seating provision	Seating options	Comments
11	Rural	Y	Low	16	0	9	4	3	Population approx. 1,800. Shops and schools in village. Situated at edge of village adjacent to village hall car park.
12	Rural	Y	Low	11	0	7	2	2	Population approx. 6,000. One of two play parks. Adjacent to village hall and car park. Two play areas one at entrance to car park with youth shelter and second area set in grassed area at other end of the car park.
13	Rural	Y	High	18	0	7	3	2	Population approx. 4,000. Commuter village on edge of city, park alongside main route through to city. On a bus route with stop close to the site. Adjacent to village hall and car park. Two play areas one at entrance to car park with youth shelter and second area set in grassed area at other end of the car park adjacent to tennis courts and football patches. Access through narrow kissing gate.
14	Rural	Y	Medium	6	0	6	1	1	Population approx. 1,000. School only. Park set within village hall car park adjacent to main route through village. In poor state of repair and with notice saying it is to be relocated.
15	Rural	Y	Low	21+	0	9	9	4	Population approx. 750 with school and one shop. Park at edge of village down unmade lane. Parking area bounded by bank and large boulders. Park within green field
16	Rural	N	Low	12	0	5	0	0	Population approx. 620, school and one shop. Situated on edge of village behind housing estate (originally RAF married quarters) with no direct route to main village so access is along a narrow pavement adjacent to main route through village approx. ½ mile. Access is available across fields – only suitable for ambulant. All structures wooden. In green area with football pitch and copse.
17	Rural	Y	Low	7	0	4	4	2	Population approx. 650, no facilities. Ribbon development along a main route with park at edge of village, down an unmade track behind a small area of housing. Adjacent to tennis court, skate park and football pitch.
18	Rural	N	Medium	5	0	4	3	3	Population approx. 100. No facilities. Adjacent to road, no off-road parking. Sloping site with play equipment to one side.
19	City	Y	Low	11	0	8	3	2	Population approx. 130,000. In mixed residential and shopping area in historical district adjacent to castle and cathedral. In a green area adjacent to hotel and other facilities with pay and display car park facilities. Popular area for tourists. iPlay interactive play structure
20	Urban	N	High	22	2	9	5	2	Population approx. 14,500. Busy market town. Set in green area adjacent to main route in to town centre. Housing development at edge of green area and across the road (no pedestrian crossing). Toilet facilities including accessible toilet close to main play area. Area with smaller items fenced in, larger items set around green area. Level access roundabout outside fenced area, supportive swing within it.

Appendix K: Links between literature review themes and interview data



Appendix L: Nvivo10© nodes and sub-nodes created from interview data



Appendix M: Use of Nvivo10© for data analysis

Where an investigation generates significant amounts of qualitative data the practicalities of analysis must be considered. This investigation gathered data from 8 case study sites through participant interviews, surveys, images and grey literature. This created a volume of data which could as advised by Miles and Huberman (1994) create an issue regarding analysis.

Specialist software provides a structure within which different data sources and types can be recorded and managed providing a framework for review and analysis. Therefore, for this investigation Nvivo10©, was utilised, this is designed specifically to support both qualitative and mixed methods research.

In classifying, organising and analysing the data from this investigation this researcher entered all relevant information into the software programme including, but not limited to;

- Digital recordings of interviews
- Interview transcripts
- Images taken during site visits
- Images from other sources
- Scanned drawings and notes
- Media reports
- Minutes of formal meetings (e.g. Parish Council)
- Information including leaflets and web pages linked to case study sites

These data sources were imported to Nvivo10© under the project heading (Figure M.1) and allocated to source headings (CSS1 – 8).

Figure M.1 Data allocated to sources in Nvivo10©

These data sources were analysed to identify themes, these recurrent topics coded in Nvivo10© as 'nodes'. This process initially identifying broad themes which were common across all case study sites providing an overview of the data. Following this the data was reviewed in greater depth, sub-topics identified and allocated to the appropriate node.

This process was completed for all forms of data resulting in the structure illustrated in Figure M.2.

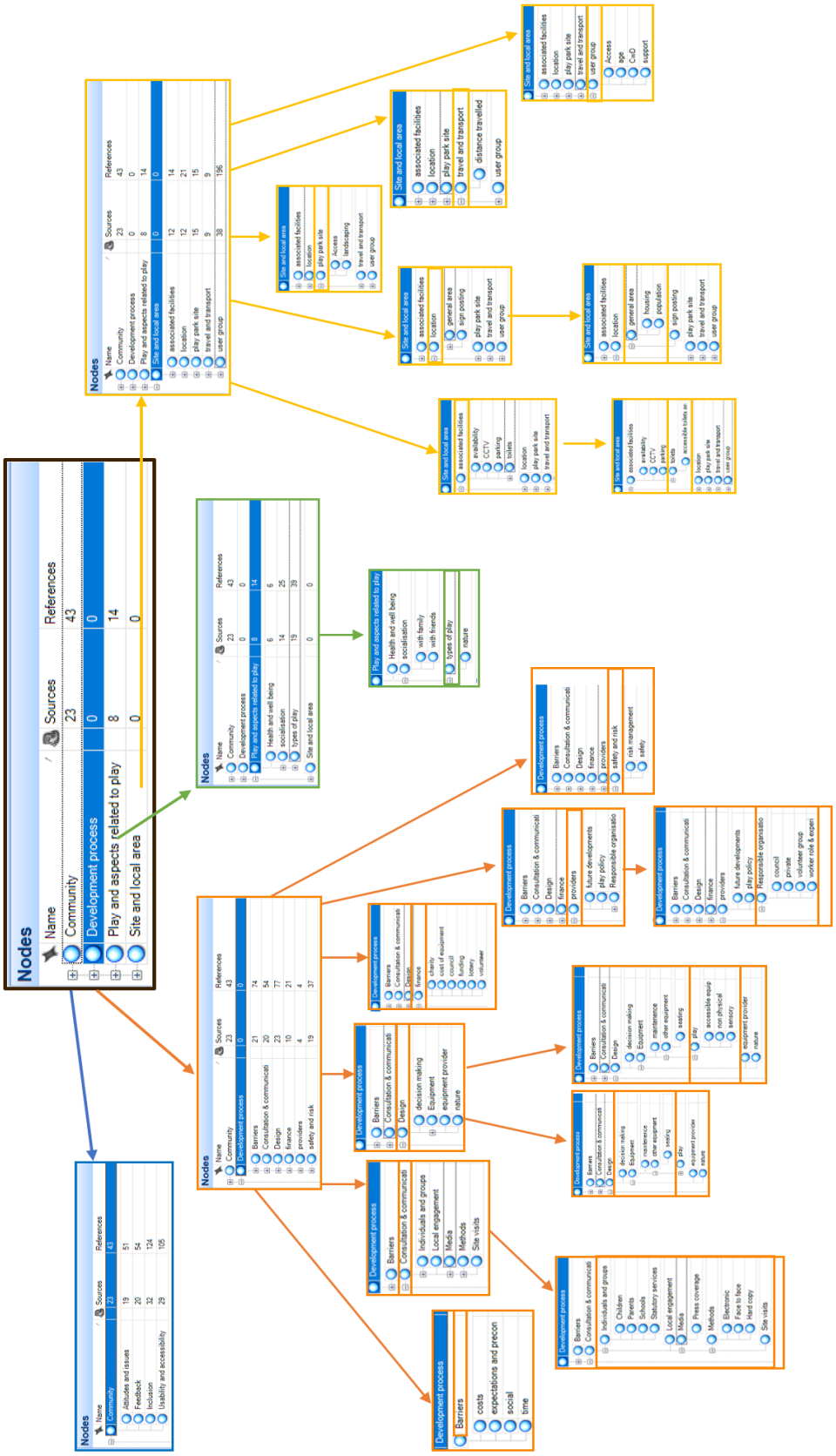


Figure M.2 Themes and sub-themes for this investigation as coded in Nvivo10©

The iterative process enabled the headings for themes and sub-themes to be refined and data assigned to all appropriate nodes / sub-nodes (Figure M.3).

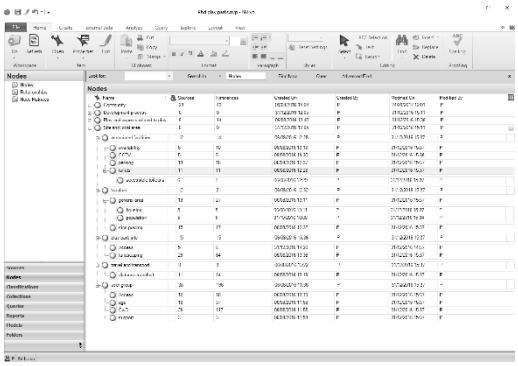


Figure M.3

Node and sub-node headings

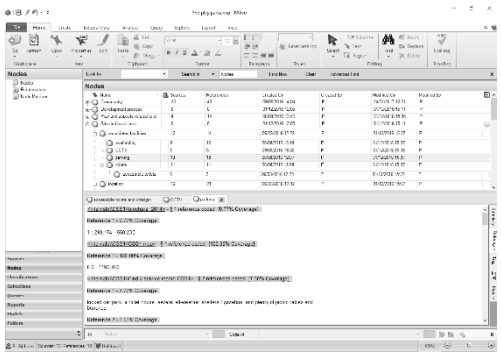


Figure M.4

Data coded under nodes and sub-node headings

The data allocated to each sub-node viewable in a report (Figure M.4) and interrogated via Nvivo© queries to identify text linked to themes enabling deeper understanding of overarching themes. This report enables review and comparison of linked data across different case study sites. Nvivo© supports visualisation of query results through charts, cluster analysis, tree maps and graphs and creation of word trees (Figures M.5 and M.6), which were found to be the most effective representation of results.

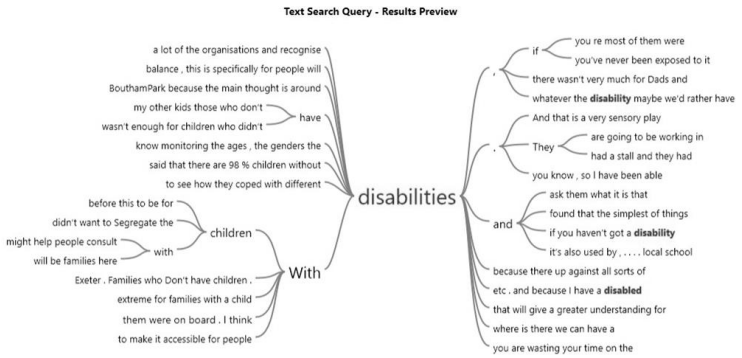


Figure M.5

Word tree: Disabilities

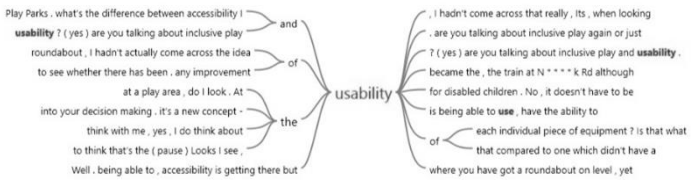


Figure M.6

Word tree: Usability

Appendix N: Nvivo© word frequency searches

Play	Adult	Benefits linked to outdoor play	Disadvantages linked to outdoor play	Accessibility	Socialisation in play parks	Challenge in play	Risks and hazards linked to outdoor play	Fixed play equipment
Play	Adult	Health	Accident	Access	Brother	Challenge	Damage	Equipment
Playing	Grown-up	Active	Bullying	Disability	Family	Danger	Danger	Frame
Plays	Parent	Activity	Danger	Inclusion	Friend	Height	Hazard	Rocker
Player	Grandparent	Exercise	Fall	Impairment	Inclusion	High	Health &	Roundabout
	Person	Fit	Hurt	Ramp	Parent	Risk	Safety	Sand
	People	Run	Injury	Wheelchair	Sister		Inspect	Slide
	Carer	Running	Risk		Social		Maintenance	Swing
	Teacher		Safety		Socialisation			Trampoline
	School		Illness					Zip wire
			faeces					

Appendix O: Table of proposed consultation methods and timescales

	Consultation methods							Notes
Middle Stage	Activity based							Using craft / colouring activities are useful with younger children encouraging discussion of thoughts and feelings. Adult observer not facilitating activities may capture comments more effectively than one supporting children. Schools / groups may be able to integrate activities within their planned activities.
	Public consultation – dedicated event	May be able to participate if format appropriate	Dependent on format					Gathering data on age / gender assists in reviewing outcomes / identifying under-represented groups Interim public consultation gives feedback on progress and early suggestions Dedicated events can be linked to fundraising activities Advertising these in print / radio / social media can be linked with promoting questionnaires Having visual information stimulates interest – posters / flyers Holding events on site such as picnics can highlight the proposals and are suitable for all ages
	Group discussion – no adult facilitation							Gathering data on age / gender assists in reviewing outcomes / identifying under-represented groups Locating the discussion in or close to the play park may encourage engagement with the activity Encouraging the participants to lead discussion, record relevant points etc. supports open discussion and feeling the consultation outcome will reflect their views For younger children images – both existing and created are good ways to encourage participation
	Group discussion- with adult facilitation							Images will support younger children in discussions, as will objects of reference Using craft / colouring activities are useful with younger children encouraging discussion of thoughts and feelings. Adult observers not facilitating activities / discussions may capture comments more effectively than those supporting children. Schools and groups may be able to integrate activities within their planned activities.
	Questionnaire – detailed			Adult support may be required dependent on format				Gathering data on age / gender assists in reviewing outcomes / identifying under-represented groups Asking for preferences in current provision as well as a wish list for new may identify equipment which could be retained or should be replicated Likert scales plus text boxes give options to for feedback Online surveys are available and often have higher response rates if advertised on social media
	Questionnaire - simple	May be able to participate if format appropriate	Adult support may be required dependent on format					
	Site visits to other play parks	Adult presence required	Adult presence required	Adult presence required	Adult presence required	Adult presence / permission < 16 required		Completing visits at this stage provides a general overview of provision and understanding of which play parks are effective in providing play value. Looking at parks of a similar size shows what can be achieved and minimises the possibility of requests being unachievable from the start.
Early stage	Public consultation – within wider context	May be able to participate if format appropriate	Dependent on format					Gathering data on age / gender assists in reviewing outcomes / identifying under-represented groups For younger age groups photographs may be more appropriate than drawn images. When looking at scheme representations they may not understand these are an approximation of the final scheme and subject to change Images need to be clear and preferably A4 as a minimum Stickers can be used to indicate preference for younger children, as can fun ways of registering choice
Project development	Age group (years)	<5	5-8	9-10	11-13	14-18	Adult	**Where participants have cognitive impairment, or require support to communicate, need for adult support or consultation methods will not necessarily relate to physical age.** **Flash cards with images (✓, X, 👎, 👍) are a useful communication tool**
	Examples of groups who may participate	Pre-school / toddler groups / activity groups (music, baby yoga, signing) Children's centres Faith based groups Libraries	School / special school Rainbows / Beavers Sports clubs Faith based groups Libraries	School / special school Brownies / Cub Scouts Sports clubs Faith based groups Libraries	School / special school Guides / Scouts Sports clubs Cadet groups (e.g. Army) Red Cross / St John Ambulance Youth clubs Faith based groups	School / special school Sports clubs Cadet groups (e.g. Army) Red Cross / St John Ambulance Youth clubs Faith based groups	Local social media groups Parent support groups Sports clubs Faith based groups Lions / Rotary / Round Table etc. Libraries	Special Educational Need & Disability (SEND) websites have registers of local groups and activities with contact details Mumsnet.com and other parenting groups have links to local activities
Following consultations, feedback of results to participants, and reflection of these in final schemes validates the consultation process.								

Consultation methods								Notes
Post completion follow-up (6-12 months)	**Questionnaires simple / detailed**	May be able to participate if format appropriate	Adult support may be required dependent on format					Follow-up consultations assist with understanding how effective the project has been in providing a play park with play value for all abilities and how the needs of adults supporting play have been met. This information can support future development, identify areas of need and can be utilised for other projects Gathering data on age / gender assists in reviewing outcomes / identifying under-represented groups
Play park project completed & open for public use								
Final stage	**Public consultation – dedicated event**	May be able to participate if format appropriate	Dependent on format					Final consultations prior to finalising schemes support the sense this is a community project Gathering data on age / gender assists in reviewing outcomes / identifying under-represented groups Dedicated events can be linked to fundraising activities Advertising these in print / radio / social media can be linked with promoting questionnaires Having visual information stimulates interest – posters / flyers Holding events on site such as picnics can highlight the proposals and are suitable for all ages
	Public consultation – within wider context	May be able to participate if format appropriate	Dependent on format					Gathering data on age / gender assists in reviewing outcomes / identifying under-represented groups Presence at local events emphasises the focus on local views and participation and may increase participation / support Having visual information stimulates interest – posters / flyers
	Site visits to other play parks	Adult presence required	Adult presence required	Adult presence required	Adult presence required	Adult presence / permission < 16 required		Site visits at this stage can be more focused and highlight specific aspects of planned provision Adults should try age / size appropriate equipment if possible Speak with others using the site to elicit views on that provision Use of camera's / phones can assist younger / less able children record preferences & stimulate later discussion / activity Offer opportunity to look at aspects outside of equipment provision such as access & seating
	Workshop format		Adult presence required	Adult presence required	Adult presence required	Adult presence / permission < 16 required		Gathering data on age / gender assists in reviewing outcomes / identifying under-represented groups Workshops can be used to discuss data from site visits Images / equipment provider catalogues Creating and discussing wish lists / idea boards encourages discussion which can then be refined Older age groups can lead workshops, complete research, make presentations and decide on activities to increase engagement Objects of reference can initiate discussion for younger age groups Active ways of registering votes / preference add fun and interest
	1:1 interview		Adult presence required	Adult presence required	Adult presence required	Adult presence / permission < 16 required		Gathering data on age / gender assists in reviewing outcomes / identifying under-represented groups Location of the interview will be key to ensuring the child / young person feels comfortable For younger children a generalised discussion may provide more meaningful information Having an interview schedule ensures all areas are covered and this can be shared before the discussion if appropriate Child-led interviews
	Age group (years)	**<5**	**5-8**	**9-10**	**11-13**	**14-18**	**Adult**	**Where participants have cognitive impairment, or require support to communicate, need for adult support or consultation methods will not necessarily relate to physical age.** **Flash cards with images (✓, X, 👎👍) are a useful communication tool**
		Examples of groups who may participate	Pre-school / toddler groups / activity groups (music, baby yoga, signing) Children's centres Faith based groups Libraries	School / special school Rainbows / Beavers Sports clubs Faith based groups Libraries	School / special school Brownies / Cub Scouts Sports clubs Faith based groups Libraries	School / special school Guides / Scouts Sports clubs Cadet groups (e.g. Army) Red Cross / St John Ambulance Youth clubs Faith based groups	School / special school Sports clubs Cadet groups (e.g. Army) Red Cross / St John Ambulance Youth clubs Faith based groups	Local social media groups Parent support groups Sports clubs Faith based groups Lions / Rotary / Round Table etc. Libraries