MULTI-ASPECTUAL INTERVIEW TECHNIQUE
(M.A.I.T.)

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CONTAINS A PULLOUT

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Acknowledgements

I wish to acknowledge in particular three people without whose support and guidance I could not have completed this work:

My supervisor, mentor and friend Professor Andrew Basden went to great lengths to provide academic, pastoral and financial support. In believing me capable of completing the PhD process he afforded me an opportunity which I never would have expected.

My partner Christopher Coomer gave his unfaltering love, care, support, common sense and technical expertise without which I could not have made it through this all-encompassing and stressful process.

My dearest friend Andrew Mackenzie who first persuaded me that I was capable enough to go to university, proof-read my work with enthusiasm providing stimulating feedback and supported me throughout.

I can never repay the kindness and confidence that these people have invested in me but I do give my heartfelt thanks.

On an institutional level I thank EPSRC (Engineering and Physical Science Research Council) for the funding without which I could not have afforded to study at PhD level. Last, but by no means least, is the University of Salford which began as a technical college for working-class people in the eighteen hundreds and keeps its roots in this ethos by endeavouring to encourage a wide range of students from a variety of ages and backgrounds to surpass their individual expectations and realise their potential.

Declaration

Some of the material contained in this thesis has been presented in the following publications:

Kane, S. C. Basden, A. (2003) Andragogy and Prospective I.S. Professionals Conference presentation at the Centre for Philosophy, Technology and Systems – Maarssen, Holland. April 2003.

Kane, S. C. Basden, A. (2004)The Mature Student Education of I.S. Professionals Proceedings of the Centre for Philosophy, Technology and Systems – Interdisciplinarity and the Integration of knowledge Conference. Maarssen, Holland. April 2004.

Kane, S. C. Basden, A. (2004) Mature Students Studying Information Technology and Information Systems at Degree Level Conference presentation at UKAIS – Glasgow Caledonian University Conference May 2004

Kane, S. C. Basden, A. (2005)A Multi-Aspectual Method To Examine Why Mature Students Study I.T. Conference paper with Andrew Basden – Proceedings of IRIS PhD Conference 2005. University of Salford, Greater Manchester. April 2005.

Abstract

This is exploratory research which employs qualitative interview techniques that are built on the foundation of Dooyeweerd's Aspects (1984), which is facilitated here by the Multi-Aspectual Knowledge Elicitation (M.A.K.E) model (Winfield 2000) and led to the design and application of the Multi-Aspectual Interview Technique (M.A.I.T).

This study began when the researcher saw an anomaly in mature students who study information technology as they have decided to study a subject for which their time in mandatory state education has provided no foundation of knowledge. Even though this is true, it should be noted that information technology (I.T.) is categorised by the Education and Skills Council as one of the preferred subjects for mature students (Ross 2002). The information collected for this project was arrived at by carrying out interviews of mature students studying for an information technology (I.T)/information systems (I.S.) degree at a North-West university, and mature students studying a health care/nursing, access to university course of which I.T. is a mandatory part (in the form of the ECDL qualification - European Computer Driving Licence). The second group were studying at a North-West Further Education college.

This research is an exploration of the experiences of these two groups of mature students in education. However, the unexpected challenge of how to uncover their experiences soon made itself an equal focus of the research. Having found and applied a format (Dooyeweerd's Suite of Aspects) to guide the collection of everyday experience, the research produced a range of information about the experiences of people who have both specifically decided to study I.T. and those who have found themselves studying I.T. as a mandatory part of another course. Equally represented here is an assessment of how Dooyeweerd's Suite of Aspects (1984) facilitates qualitative research interviews.

Research Summary

Introduction
This research is an expedition across a strand of information technology education which does not start at the beginning of the learning span as we recognise it, that is, childhood. Indeed we are in the midst here of what John Keats made note of as *"...Autumn, when his wings he furleth close: contented so to look on mists in idleness..."* (Keats 1817). While John Keat's poem 'The Human Seasons', depicts the story of a mature life as slow and restful, modernity presents maturity alongside continuous, lifelong learning often of topics not studied in earlier years. No 'wings furleth closed' or 'idleness' for those who endeavour to acquire new skills and meet their potential whatever their age. The essence of why mature adults return to education and what is important to them is studied here by considering not just mature students, but mature students who study a subject, information technology (I.T.), which in the main they had no introduction to in their experience of compulsory education.

Exploratory research of two mature students groups
This is exploratory research which engages with two groups of mature students, one of which is made up of those studying information technology (I.T)/information systems (I.S.) as a main discipline at degree level. They are enrolled on a full-time course at a North-West university. The other group of mature students are studying to be health professionals on an 'Access to Higher Education' course at a North-West Further Education College. The course includes I.T. as a mandatory subject. The groups share the two characteristics of studying I.T. and all being mature students. Also in common is their hope to gain professional status and an improved working life and lifestyle in general. However, without forcing the issue of I.T. as a compulsory subject for discussion, the researcher hopes to find out what level of importance I.T. has in the lives of these intentional and unintentional students of I.T. This will be approached by attempting to uncover what is important to these particular mature students per se and then assess the relevance of I.T. along with other elements.

Research Context

The research context is that of mature students studying I.T. in both Further and Higher Education. In order to gain an insight into what is important to these students necessitates an information-gathering process which encourages a wide range of information, does not dictate questions or place the interviewer as dominant and which allows the control of content and level of interaction to reside with the interviewee. These stipulations were deemed necessary by the researcher because of wanting to gather information without controlling what the interviewees' comments would be, insofar as is possible. This intuitive concern was later shown to be valid when problems of the interview as a method surfaced in the search of literature carried out for this project (see Existing Bodies of Knowledge chapter section 2.2 to 2.3). Due to the specific demands of the data-gathering process, the way in which information can be collected is a dominant factor. The following section outlines the way in which an alternative qualitative interview format became the defining factor in the research process.

The aspects (non-dominant interviews).

It became necessary to find an interview method which would meet specific factors, work began in meeting this objective in order that information from mature students in I.T. could be gained via an autonomous process, that is to say, preserving the independence of the interviewee as paramount. As a furtherance of this ambition, this thesis explores the potential of a theory. Herman Dooyeweerd's (1984) Suite of Aspects is suggested here as an alternative to qualitative research interviews as we know them.

Using aspects instead of questions

Rather than using a list of questions (from the perspective of the researcher) as an interview strategy, the researcher began to consider the application of Dooyeweerd's Aspects in interviews. A version of the aspectual interview process, Multi-Aspectual Knowledge Elicitation (M.A.K.E), set a precedent for using this format in previous interview studies which specifically used the procedure to ascertain the expertise of

professionals (Winfield 2000). Within this research an additional aspectual model has been developed, the Multi-Aspectual Interview Technique (M.A.I.T).

It is important to note here that each of the thirty-five interviews in this study was carried out via one of the two models:

- Multi-Aspectual Knowledge Elicitation model (M.A.K.E)
- Multi-Aspectual Interview Technique (M.A.I.T)

Both models are products of the Theory of Aspects and the Suite of Aspects as a part of it. This is a suite of fifteen aspects provided in the philosophical work of Herman Dooyeweerd (1984). His theory of aspects denotes everyday meaning, knowledge and experience as important rather than a poor relation of scientific knowledge. While the two interview models are noted as the interview strategies used in this research, it should always be remembered that they are both simply different perspectives on using the Suite of Aspects to gain information from interviewees who presented differing needs when communicating their thoughts. It is the Theory of Aspects and within it the Suite of Aspects which is of theoretical and practical importance and which will be explored by examining how it enabled information from a complex group of individuals to surface.

The specific group used for the purpose of this study are mature students studying information technology and information systems. The study of a specific group requires sensitivity to the diversity and coherence of everyday life which the data-collection method must not exclude or reduce to unimportance.

The importance of generalisations
Emergent generalisations/categories are important to the recognition of potential universals, that is shared points or issues which may cross over into a wider research area. Categories should emerge naturally from the data in order to provide a theory which 'fits' the research situation, *"...discovery gives us a theory that 'fits or works'*

in a substantive or formal area" (Glaser & Strauss 1968, p.30). A wide variety of information from mature students is sought here to explore a theory which the researcher considers may be useful in interviewing mature students studying I.T./I.S. in this instance, and possibly for other interview situations.

Generalisations/categories are concepts from evidence of *"what is going on in the area studied"* (Glaser & Strauss 1968, p.23). Stebbins suggests that: *"...the importance of any generalisation is in generating grounded theory..."* (Stebbins 2001, p.60). If the data corresponds to the research focus, then, the theory 'fits' and is therefore grounded. As Glaser and Strauss (1968, p.3) state: *"...generating grounded theory is a way of arriving at a theory suited to its supposed purpose"*.

The importance of aspirations/potential

The "Success for all" Department for Education and Skills (2003) government paper suggests that adult learners should be enabled to *"raise their aspirations, reach their potential and improve the quality of their lives"* through education. Therefore, demonstrating that the aspectual interview strategy can explore 'aspirations' and 'potentialities' of a mature student group not by asking predefined questions (and therefore not setting the agenda beforehand), but allowing such important points to emerge from the perspective of the interviewees is key. Attempting to discover attributes such as 'aspirations' and 'potentialities' which can be rather vague, even to the individual, places certain demands on the interview process that are not easy to meet. What the researcher seeks to elicit is not simply established expertise or knowledge (actualities) but also 'what is important' to people, what it is they truly aspire to and what they believe their potential to be - such things as hopes, aspirations, fears, concerns, norms, values, and so on, all of which are (potentialities), which can be rather nebulous. Therefore respondents must be accommodated with an interview process which enables and encourages such types of information to emerge within a context that allows their wide-ranging commentary.

As the American anthropologist Margaret Mead (1901-1978) stated:

> *"If we are to achieve a richer culture, rich in contrasting values, we must recognize the whole gamut of human potentialities, and so weave a less arbitrary social fabric, one in which each diverse human gift will find a fitting place".*

While it may read here as though the researcher looked for aspirations and potentialities because they are noted in literature, this is not the case. In fact, aspirations and potentialities surfaced from the mature student interviews as a dominant factor, and therefore as an emergent generalisation/category within analysis. While it is interesting and valid to note that this category shows parity with earlier literature, it is important to note that the emergent generalisation of aspiration/potentialities as a category exists here due to its discovery via the research data and not from what Glaser and Strauss (1968, p.14) call *'armchair'* theorising.

The Research Design

The aspectual structure which underlies M.A.K.E and M.A.I.T

The Suite of Aspects as the underlying structure of the M.A.K.E and M.A.I.T models will be assessed in its ability to gain a wide range of information in regard to the experiences of mature students, and to encourage the discovery of aspirations and potentialities from the perspective of mature students. These qualitative interviews are presented from a critical/ interpretivist research stance and in the form of exploratory research.

Positivism and Interpretivism

The researcher believes that the difference between positivist, interpretivist and critical research paradigms is an issue of mindset in which each individual must define their own belief system.

> *"A paradigm may be viewed as a set of basic beliefs ...It represents a worldview that defines, for its holder, the nature of the 'world,' the individual's place in it..."* (Denzin & Lincoln 1994, p.107)

Positivist philosophy provides that the individual accept absolute objectivity as an axiom, while interpretivist philosophy allows subjectivity. As this researcher's own beliefs hinge on the interrelatedness of social construction and subjectivity, the most honest approach to embarking upon research at this time is through critical theory which assumes the importance of people's history and therefore experience. This choice will not discount methods which provide quantitative, numerical data, but such methods will be promoted in the interpretivist tradition of providing meaning to represent the data collected.

The study of information systems and information technology has seen a high level of research carried out through positivist paradigms though interpretivist and critical research work is ever-growing in this area.

> *"Positivist methods continue to be prevalent... [but a]... survey of IS academics in Europe found...qualitative methods, ...are more prevalent than the empirical methods of survey, secondary quantitative data analysis and experiments".* (Avgerou 2000, p.574)

Educational research and the use of aspects

Educational research and the study of research methods too have their share of these methodologies. Due to this combination of styles in the particular areas at the core of the investigation (I.T./I.S., adult education and interview methods) the researcher is mindful of the need for a balanced approach. It is the researcher's opinion that Herman Dooyeweerd's Suite of Aspects will provide a theoretical framework in which to collect varied and rich information from research subjects. The aspectual suite provides for issues of quantitative and qualitative research in addition to a social critique of the everyday. This particular research is carried out on the basis of providing an exploratory social study. It is suggested by Maanen et al. in Stebbins 2001 that;

> *"...taking exploration to be merely a rehearsal for the main show leads to an unnecessarily stiff and stifling view of social study...as a way of talking about methods, exploration is attractive and helps move current*

methodological discussions beyond listing the pros and cons associated with a set of tired, oversimplified, either-or choices...social research is always (or at least should be) exploratory...This sort of research outlined and exemplified by C. Wright Mills as intellectual craftsmanship and results in the sort of theory celebrated by Anslem Strauss and Barney Glaser as grounded...building useful theory is the raison d'être of research". (Stebbins 2001, p.v,vi)

Focus of study

This study focuses on: How the aspectual format may complement or provide an alternative in research interviews. The exploratory approach fits with this study because the researcher can not control the events in relation to the study and because mature student I.T./I.S. education is a contemporary phenomenon in a real-life context.

The researcher wishes to make clear that this is not a comparative study. This is an exploration of how an aspectual framework can provide a structure for finding out what is important to/the potentialities and aspirations of mature students studying I.T./I.S.

Relevance of this research

Research interviews are a mainstay of qualitative social research. The Suite of Aspects as an interview technique is not presented here as the pinnacle of interviewing methods. However, it is provided as an alternative and the intention is to persuade interviewers to consider the interview not simply as a de-facto method which may be implemented in an ad hoc manner, but as a vital weapon in the arsenal of social research methods which should be considered as such. The underlying philosophical, theoretical and methodological issues of how and why we interview should be an intrinsic part of the researcher's decision whether or not to utilise interviews and if so then how to and for what purpose. In addition, whenever possible, such information should be shared in explicit terms with the reader. How else will the reader know how to value the outcome?

Conclusion

This research will show how the aspectual framework provides interview formats which are adaptable and acceptable to a complex group (mature students), allowing them to explain their experiences without the enforcement of specific and rigid questions at the same time allowing the researcher a structure which provides guidance and a reminder of important elements. The following chapter introduces this research study with greater detail and emphasises the main areas of importance in this work.

<center>**Chapter One**</center>

<center>**Introduction**</center>

1.1 Introduction

This chapter provides the background to the thesis, outlining the specific area of mature students studying Information Technology (I.T.)/Information Systems (I.S.). In addition particular points about mature students in general are noted. After presenting the researcher's reasons for embarking upon this study and considering mature students as a specific group, the type of research which takes account of mature students is recognised. Moving on from this, the particular areas of research importance are made note of with the envisaged contributions which will be made by this work. Then, the research aim and the scope of the research is stated.

1.2 Mature Students in I.T./I.S. – reasons for exploring this area.

Any researcher must consider the relevance of the chosen subject area, and there are reasons why it is pertinent to explore mature students in I.T./I.S. Mature students have issues and difficulties which are not always catered for in institutional education, issues such as learning and teaching patterns, self-awareness of their own needs and a concept of what is necessary to help carry them through the extra years in education which they commit to. At this time 'access to university' courses include such government initiatives as the ECDL (European Computer Driving Licence), a qualification which provides basic I.T. competency. This is now viewed by government as a necessary skill and noted as a necessary qualification by some organisations.

> *"The British Computer Society (BCS), who manage the programme in the UK on behalf of the ECDL Foundation, list Sainsbury's, the NHS and HSBC among the companies who have set ECDL as their computer skills benchmark".* (Training Reference 2005)

The two groups interviewed for this research process are mature students studying I.T./I.S. for a degree in Higher Education and mature students studying an access to

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university course in Further Education. The second group of students expect to work for the NHS as health professionals and it is therefore relevant to consider whether these mature students who are involved in studying for the ECDL qualification find I.T./I.S. pertinent to their career prospects and/or lifestyles in any particular way.

Government reports on adult education show that adult participation in learning is deemed important:

> *"The Government is looking to providers and employers to get more adults onto the ladder of learning".* (Learning and Skills Council 2005)

As stated, in addition to degree qualifications, information technology has become an integrated part of access courses studied by mature students. Therefore the researcher endeavours to present an interview framework to acquire information about mature students studying I.T./I.S. at different levels and for rather different reasons.

1.3   Mature students as a type
This section states why Mature I.T. students are different and as such justify a specific exploratory study.

Mature students who study information technology (I.T.) and information systems (I.S.) are not the norm. They differ from their younger counterparts in various ways:

- They did not study IT/IS at school (compulsory education), and have therefore chosen to study a topic area for which they have no previous foundation from their earlier full-time education.
- They have not grown up with computers in the home and elsewhere

In addition to this, mature students in general share the following points:
- Wide range of life experiences

- They have issues related to not being in education for some time
- They have different (often far greater) responsibilities than younger students

As already noted, for the purpose of this study two groups of students are interviewed. One group are studying I.T./I.S. as the main subject of their degree in Higher Education and a second group who are studying I.T. in conjunction with other science modules in Further Education. While the first group are studying in Higher Education and the second group are studying in Further Education, all interviewees share the specific points of being mature returners to education and studying I.T. at some level. Mature students are distinctive and a separate type as apart from their younger counterparts in elements of experience, commitments and previous education, particularly in the area of I.T./I.S, and therefore warrant being studied as a unit of analysis in their own right. Changes in respect to mature students in Higher Education can be seen in the following quotes:

> *"The fewest ever UK mature applicants were accepted to degree courses in 2000", suggesting that "accessibility to higher education in general is becoming more difficult for this cohort".* (Green 2003, p.6)

> *"More mature students are applying to higher education with applicants within the 21-24 years bracket up by 8.0% to 43,421 and the 25 years and over bracket up by 15.1% to 41,452".* (UCAS 2005, Information)

Mature students as a particular group in education are represented in various research areas as can be seen in the Existing Bodies of Knowledge – chapter 2, section 2.5.1. Alongside this are the studies which consider many other elements which influence mature student education (see Existing Bodies of Knowledge chapter, section 2.5.2).

1.4 I.S. research and its relationship to I.T./I.S. education

Education either as pedagogic or experiential is part of our everyday lives and therefore can be seen in all that we do. This does not mean that our lives are singularly exclusive to education. If this were the case students in any discipline

could only ever be objects of education; they are not, they are rounded human beings interacting with specific subjects for their own particular reasons. Whether the subject area is geography, music or information technology, the subject is that which defines their choice and perception to some degree of what they see as important or useful.

Technology is viewed as a subject of modernity, information technology as a discipline suffers from this view by sometimes being judged an appendage to other topic areas rather than a discipline in itself. In this study, the researcher suggests a balanced approach accepting there are educational elements to this work, at the same time placing it firmly within the research context of information technology/information systems. This view that education within the discipline of I.T./I.S. is at least in part the province of I.T./I.S. researchers is supported by the fact that I.T./I.S. researchers have published works in relation to I.T./I.S. education; Bacon and Fitzgerald (2001), discuss a framework for conveying information in I.S. studies. Davis (2004) addresses the dificulties of educating doctoral students in I.S., Fitzgerald (2003) tackles the issue of I.S. as a true discipline and whether this should be identified in part by what I.S. teachers do. Avison (2003) states the problems he has encountered within Higher Education when having to argue that I.S. should remain a core subject and makes note of many other academics facing the same difficulties in the educational process. Perry (2003) discusses the issue of teaching and practicing I.S. as a unified discipline if it is not judged to be so and concludes that in the everyday sense of the word ('discipline' as a set of skills and relevant knowledge), there is nothing to impede the teaching of I.S. as a discipline.

1.4.1 I.T./ I.S. – discipline and/or appendage?
Noted concerns here that I.T./I.S. is not taken seriously as a specific discipline with its own body of knowledge, perhaps suggests that delving into the educational issues of the subject is sometimes avoided because this might be seen as weakening its position even more. It is this researcher's opinion that if the teaching of the subject was researched more from a position of strength within the I.S. academic/teaching

community, this would reinforce its position as a discipline. Any subject or discipline which does not recognise the importance of the educational process of that discipline is not adding support to its foundation of knowldege development or disemination.

The UK Government is pursuing I.T. for adults in initiatives such as the ECDL qualification, so it is surprising that more work specifically researching mature students in I.T. is not available. There are a variety of areas where mature students are choosing to study and many of these areas have seen research regarding each discipline and how this relates to mature students. However, this is not the case in information technology and information systems where the instance of research regarding mature students studying the discipline is noticeable by its absence. I.T. is often considered an appendage to other study subjects because it can be viewed as a general set of skills necessary for modern living and working but, considering the UK government's pro-active stance on encouraging mature adults to gain I.T. qualifications, it is surprising that more research into mature students studying I.T. has not been found.

1.5 The type of research

The researcher is expressly positioning this study as exploratory research in information technology. That is, inductive as opposed to deductive, most notably because of the lack of information regarding mature students in I.T./I.S. education, and the limited information regarding the aspectual suite as particularly useful in the interview process. This choice is supported by Stebbins:

> *"Researchers explore when they have little or no scientific knowledge about the group, process, activity, or situation they want to examine but nevertheless have reason to believe it contains elements worth discovering".*
> (Stebbins 2001, p.6)

Further explanation of exploratory research as a type relevant to this study is presented in the Approaches to Research - chapter 3.

1.6 The three specific areas of importance in this research.

There are three areas of particular importance in this research:

1. Mature students studying I.T.
2. Ways of finding out what is important to mature students
3. The notion of 'Aspects' which will aid this exploratory study.

1.6.1 Area of research importance 1: Mature students studying I.T./I.S.

Alongside the UK Government initiatives for adults to improve their I.T. skills, mature students studying I.T. is also an area of research importance because mature students are different to younger adult students in a number of ways and this is more so in the instance of mature students studying I.T. After all, they have not grown up surrounded by information technology in the way that their younger counterparts have, and it was not a subject in their mandatory school education. They have come to the study of I.T. via a different route after experiencing I.T. in their work and daily lives which may be vast and varied as is noted by Graham.

> *"Graham's (1991) survey of the previous occupations of mature graduates revealed a wealth of experiences with some individuals having had a very chequered career pattern prior to their studies".* (Walters 1996, p. 120)

Due to returning to education later in life there are differing practicalities which face mature students. They have a wider life experience and often have a heavy load of responsibilities unparalleled by younger adult accountability. Their background of information technology is usually defined by their work experience and particularly in the case of women it is suggested that I.T. adopted them rather than the other way around. Stories relating to this may begin with anecdotes of being the only one in the office who could use the computer or having to understand I.T. in order to help children with homework or seeing I.T. as a stepping stone towards what they really want to do. This, what may be seen as a female trait in deciding why they should study I.T., is explained by some as apprehension for a discipline still regarded as masculine.

"For women, the masculine image means that they feel alienated and their perceptions can play an important role in turning them away from computing and information technology...(Newton 1991)" (Waterman-Roberts 1998, p.91)

In addition, when writing about *"inequalities surrounding the use of information and information communication technologies"*, Adam makes note that *"the experiences of men and women are different"* (Adam 2001, p.237)

Younger adult learners of any gender may also see I.T. qualifications as a step towards something else but are far less likely to consider learning about I.T. as a family consideration or thinking that using a computer in an office is a strong reason for studying the subject. After all, they have grown up in classrooms where the majority are computer literate. Therefore they are not likely to consider this a reasonable foundation on which to build future career decisions unless they have a far deeper interest in the subject area.

1.6.1.1 Mature students and their younger counterparts

It is a fairly straightforward matter to list the similarities between mature students and their younger counterparts; they are all focused on achieving a qualification, they are bound by the same requirements of attending lectures, completing a varied workload and taking exams. The vast majority are living on a limited budget and are likely to be in debt for their student loan and elsewhere. There are also a variety of points which may be posited as advantages which occur for the mature student when engaging with younger people on an intellectual level. They will be privy to different perspectives and alternative ways of working and studying which were not prevalent when mature students were in previous full-time education, younger students can be very accepting and encouraging of mature students and provide a different view on many topics giving the mature student contingent some insight on considerations and solutions they may not have thought of previously. This can of course be a two-way process. However, this presentation of similarities and advantages may only serve to camouflage the only too real differences which may

not be given due consideration, even by the individuals themselves. Mature students are not always vocal in the issues which concern them such as ageism in education and when finding employment. There is also the issue of being treated like a student at college or university, while in the world external to education they are mature members of an adult society, this dictates that they play a dual role suited to each environment. In addition, they are often of the perspective that this is their 'last chance' to do something for themselves and to provide advantages for their families. Such vague notions surface through wide-ranging discourse which precludes the dictation of questions that only define what a researcher may think is important rather than what is actually important to these mature students who make the big decision to return to education. The majority will not have been in full-time education for some time. They will be out of kilter with exam techniques, essay structures and course work, and their experience of presenting work and relating their experiential knowledge with theories may be non-existent. In addition they may have left full-time employment which reduces their income and status, and all for the purpose of entering unfamiliar territory, the outcome of which may or may not result in matching their expectations. It is quite a gamble.

Such considerations regarding mature students studying I.T./I.S. suggest to the researcher that there is more to contribute to the existing knowledge about the experiences of these individuals.

1.6.2 Area of research importance 2: Ways of finding out what is important to mature students

The premise of mature students studying I.T. is at the nub of this work and what is important can only be defined by the I.T./I.S. students themselves. However, the ways in which it is possible to collect information in regard to this subject is an equally significant factor. Although a literature review points the researcher towards various works of what is already known, the primary source for this research will be the mature students themselves. The point that social actors learn by their own exploration is noted:

> *"...individuals in every society are always learning something new about their everyday lives. Using essentially exploratory ...procedures, people discover [many things] through their own experience and powers of reasoning..."* (Stebbins, 2001, p.vii)

Information about a group/s of people can be gathered in various ways. But the type of information required often suggests a certain approach.

1.6.2.1 Importance of everyday issues in gaining a wide range of information

What is meaningful and important to us as human beings is at the very core of what drives and motivates us. However, what is important is often a nebulous and unexamined issue. We have our instinctual concept of what is important but when this is examined, the instinctual answer may be a small part of a much bigger picture. In communicating this, our conversational thoughts might be stunted while what is needed is a wide-ranging consideration. What is important to us seems very personal but the core of what is important may actually be a generally held principle or universal. However, only by obtaining a wide range of information by way of a volunteered rather than forced commentary may we begin to consider levels of repetition between interviewees. When everyday issues are seen to have credence then licence is given to expand upon these which encourages individuals to share their hopes and aspirations (or 'what is important'). These are often wide-ranging which reinforces the importance of collecting a wide range of information when possible.

1.6.2.2 Some of the noted difficulties in interviewing.

The researcher is cognisant of the fact that those being interviewed or observed can easily act or respond in ways that they think will be correct or appropriate for the researcher rather than the true response that would be given in a relaxed atmosphere. The researcher can too easily dominate the research situation allowing respondents little control of the overall proceedings. As is noted by Milroy (1987):

> *"...an interview is in our society a clearly defined and quite common speech event...This perception of the interview as a speech event subject to clear*

> *rules...persists...interviews are characterised by a discourse structure not found in spontaneous conversations".* (Milroy 1987, p.25)

Here Milroy is saying that while we may accept interviews as a normal conversation, they are not. Due to this and other issues, much thought is given to ways of how to ask about what is important to mature students. 'What is important' can be viewed on many levels from home life and day to day events, to hopes and plans for the future. This demonstrates the vastness of information that may be relevant. Although there is great importance in collecting a wide range of information, there must also be coherence. A chaotic rampage of disjointed information from A-Z will not provide coherence, a unity or flow of connected information which provides a holistic picture of the mature student experience is what is required. While the information itself will be highly important to this research, the way in which it is gained will be paramount because how the information is collected dictates what is recorded and what is ignored, what is given credence and what is considered less important. Procedures in data-collection influence the outcome of research projects and should therefore be considered with due respect to their capabilities and possible disadvantages. While there is no one perfect system of data-collection that is accepted by all, there are various stalwarts such as interviews, observations, surveys etc. But it is not as simple as making a choice from these. When one or more is considered appropriate for the situation the researcher must decide how the observations, interviews etc will be implemented. Due to this the researcher places great importance on exploring the interview process and further reasons for this are given in the following section.

1.6.2.3 Reasons for exploring a new interview method

The interview method itself is important in the research process. The common denominator in research is the necessity to gather data. In the highest percentage of social research the way in which this occurs is through the procedure we call 'the interview'.

> *"[the interview] is the most common qualitative method used in the social sciences".* (Hollway & Jefferson 2001, p.1)

"We live in what has been called an 'interview society' (Silverman 1993). Not only the media but human service professionals and social researchers increasingly get their information via interviews. Some estimate that 90% of all social science investigations exploit interview data (Briggs, 1986)"
(Holstein & Gubrium 1995, p.1)

In order to utilise this method it is necessary to group together a number of respondents and then decisions about how to interact with them must be made. A common concern for researchers is how to gather data useful to the research aim (grounding of the theory by way of it being seen to be fit for the purpose). There are factors not just of the interview techniques itself, but also problems which may be caused by the interviewer. Therefore the issue of interviewer training is now made note of. While training in the art of interviewing is stated as an obvious need by some:

"Obviously, interviewers have to be trained and instructed most carefully..."
(Oppenheim 2003, p.81)

It is not always possible to acquire such preparation and researchers acting as interviewers in I.T./I.S. and various other disciplines will not have the benefit of a professional linguist or anthropologist to guide the interview process. The fact that researchers from the majority of disciplines utilise the interview as a data-collection method, without specific training, for both quantitative and qualitative information suggests the need for a format which provides a structure that is complementary or in some cases an alternative to the usual question and answer formula which, contrary to popular belief, is not easy to construct or implement and is open to extensive abuse.

1.6.2.4 The M.A.K.E. and M.A.I.T. models as alternatives

We now consider aspectual interview formats as a possible alternative to the question and answer format of the historically acceptable type of interview. The argument here is that the aspectual format which is the basis for the Multi-Aspectual

Knowledge Elicitation (M.A.K.E) and the Multi-Aspectual Interview Technique (M.A.I.T.), provides this alternative and in addition it promotes the contemplation of method and theory of the interview as a data-collection tool rather than a de facto method which is accepted and utilised because of its popularity.

The task of gathering information for this study suggested an appreciation of the Suite of Aspects in Dooyeweerd's Philosophy (1984) which provides a possible framework for use. When thinking about this the M.A.K.E. model became a likely candidate due to the possibilities it afforded and its previous use in research interviews. M.A.K.E was previously utilised to elicit knowledge from professionals (Winfield 2000) and here M.A.I.T provides an option between fully structured questioning and unstructured discourse where there are no reference points. In addition it is hoped that the aspectual framework will encourage interviewees to consider a wide range of factors. This may be seen as producing a type of depth interview as the framework references aspects which have and have not been considered.

> *"Depth interviewers...must note not only what is being said but what is being omitted...and create an atmosphere which is sufficiently uncritical for the respondent to come out with seemingly irrational ideas, hatreds or misconceptions".* (Oppenheim 2003, p. 67)

The deliberations on the most effective and useful way to collect information from mature students studying information technology (IT) and information systems (IS), has begun early in this study. The researcher will observe and converse with a group of mature IT/IS students in order to ascertain whether or not this would allow a productive way to collect the necessary information and provide direction toward what kind of information would be of use. The researcher begins with the assumption that mature student learning may be somewhat different to that of young adult learners. These students do not attend University due to parental or peer pressure and enrolment at University was a strategic decision on their part. All have strong economic but also other reasons for achieving their goal in higher education.

The time given over to the observational process will allow the researcher to judge the scope of both individual and common issues concerned in being a mature student per se and particularly in being a mature student who studies I.T./I.S. An appreciation of the area of study as complex is the origin of the researcher's requirement to establish a format which will provide an interview process that does not depend exclusively on a list of questions dictated by the researcher's assumption of what is important. This requirement is a defining factor in this doctoral study and is also noted by previous researchers who consider data-collection as far more than de-facto practice.

> *"Nothing is harder than opening up questions that we already think are solved, finding crevasses and quicksand in what everyone sees as solid ground... Collecting data is viewed as an intrinsically sound...pursuit."*
> (Briggs 1986, p.xiii)

As a consideration of how to find out 'what is important to mature students' has now been posited, the researcher hopes to contribute to the debate about qualitative interviews and specifically on the use of the Suite of Aspects in the interview process.

1.6.2.5   Area of research importance 3: Notion of Aspects

While we are all cognisant of a variety of aspects which make up our everyday lives this does not provide any specific recognition of how daily aspects are both interrelated and individual. However, we all use aspects instinctively but in order to use aspects in a theoretical and practical sense we need an explicit understanding of aspects rather than an ad hoc appreciation, it is therefore important that we have a general idea of everyday aspects which allows us to appreciate practical aspectual concepts such as those provided by Maslow and Hertzberg (Huczynski & Buchanan 2001). This begins with acknowledging the wide range of aspects active in our lives and an acceptance that some are determinative and others are normative. As already noted there are many formats which could be considered as suites of aspects such as Maslow's Hierarchy of Needs and Hertzberg's Motivation and Hygiene Factors. In

our everyday understanding we categorise and prioritise and in so doing create our own restricted versions of aspectual lists. However, these restricted versions of aspectual listing is inadequate for the purposes of this research and a stronger theoretical base must be found as this research needs a well founded way of dealing with diversity and coherence.

1.6.2.6 Using Aspects in an everyday manner

The way in which we use aspects in an everyday manner can be seen as aspirations to be promoted at work, which may surface as hopes of earning more money. But, such simple statements are multi-aspectual. The aspiration and potential for promotion may be considered strictly in the economic sense of earning more money but it may have much more meaning to the individual as a point of commitment because greater status may bring opportunities to improve one's own skills or in fact to help others improve their skills. Earning more money may again express an economic principle, but could also be viewed through social implications for one's role in society or commitment to family needs. It is a likely and salient point that more than one perspective is relevant to each interviewee. So, when considering aspirations and potentialities (or 'what is important'), the sky may be the limit, but if these are placed in the aspects, consideration is given to their meaning and probability by each individual.

1.6.2.7 The Aspects allow us to appreciate deeper meaning

The aspectual framework allows one or more references to be attributed to any aspect thus providing firstly the answers as information, then additional meaning from the choice of aspect which may be considered as the conveying of instinctual choice.

It is considered relevant to interview one type of complex group 'mature students' because 'what is important', such elements as potentialities and aspirations are often vague and imprecise notions, so it is pertinent to keep to a type. In addition, this researcher is a mature student herself and therefore can be viewed as belonging to

the same category as the interviewees. Miller and Glassner suggest this as relevant which is made note of in Silverman's work entitled – "Qualitative Research, Theory, Method and Practice" in the following way:

> *"The issue of how interviewees respond to us based on....social categories is a practical concern as well as an epistemological or theoretical one. The issue may be exacerbated, for example, when we study groups with whom we do not share membership".* (Silverman 1998, p.101)

In research, as in everyday life, individuals may find themselves overawed when trying to consider one particular element from many different perspectives. While we are all individuals, we often are dominated by categories of thought. Socrates used discussion, argument and Socratic irony in order to unveil hidden points within an argument and in suggesting that Man should spend time in self-reflection and developing a conscience he showed the need for detailed and proactive thought. The consideration of many and varied relationships to one single situation is not a small task to comprehend and the importance this researcher places in allowing our minds to be open to the appreciation of multiple standpoints is represented by the consideration of Herman Dooyeweerd's Theory of Aspects as a way of gathering research data.

1.6.2.8 How the use of Aspects relates to everyday life and mature students

As a race, human beings are as complicated as the world which they populate. We constantly look for cause, and struggle with reason. Our everyday lives are fraught with misunderstandings and an overwhelming need to understand ourselves and our environment. If we are to develop an understanding of anything we must learn to exercise our analytical minds. Plato believed that the importance of educating the populace should fall to the State and this has remained an important part of society as we know it. However, education in our time has become compartmentalised in groups generally specified by age. State-enforced schooling ends at sixteen and choice or opportunity then dictate whether or not any further or higher education is followed. Mature returners to further and higher education are now an accepted part of the system. But, while they follow the same learning modules as any other

college/university student, their experiences, lifestyle and goals may be very different. Their concerns in regard to partners and children are no less important than meeting the mortgage payments and the strength of commitment to developing their own abilities. All these issues and more are entwined together and they cannot be split apart as if they do not influence one another. Here we can begin to see the great strength of aspectual analysis in the interview. Herman Dooyeweerd provided a suite of fifteen Aspects which show the vast interrelatedness which can easily be overlooked in our consideration of any given situation. Our pre-theoretical minds sense the enormity of the effects on our lives at every turn. But in order that we may conceptualise all such perspectives an analytical format which takes into consideration the subject and object relationship of man in the world is required.

Due to the considerations of the possible use of aspects in this research, it is hoped that this work will contribute to the use of aspects in qualitative research.

1.7   Areas of secondary Importance:

1.7.1 Grounded Theory

It is expected that this research will suggest that the aspects are well placed to provide a form of grounded theory, thus it is therefore hoped that a contribution will be made to the discussion about the use of Grounded Theory (Glaser & Strauss 1968). Education influences all areas of our lives and all other areas of our lives influence our education. These are all the more complicated when considering the experiences of mature returners to further and higher education. The researcher suggests that the theory of aspects will provide the elements necessary to obtain wide-ranging information from this group of mature I.T./I.S. students. From this information, emergent generalisations will be noted. For the purpose of research validity it is important that the suggested generalisations are provided by the data rather than the researcher. While this researcher is not using the Grounded Theory specifically suggested by Glazer and Straus (1968), the importance of the theory being grounded is not overlooked. In fact the researcher will suggest that using the aspectual suite is a way of exhibiting the theory as grounded because the aspectual

suite facilitates the production of data which may be viewed as categories. The aspects aid the emergence of categories but they are actually far more than this. Aspects themselves are not simply categories, they are spheres of meaning from which categories may be formed; these meanings are formed within the interview situation and not prior to it. In addition they will be formed by the respondent, not the researcher. The researcher suggests that the theory of aspects may be seen to be relevant in the area of Grounded Theory and this form of consideration of the aspectual suite will be provided later in the Discussion – chapter 9.

1.7.2 Aspects allow pluralism

Sometime prior to this study the researcher had been introduced to the Suite of Aspects contained in the philosophy of Herman Dooyeweerd (1984). The suite provides a list of fifteen aspects that is attuned to the meaning of everyday life. It qualifies both qualitative and quantitative information from a subject and object viewpoint. The researcher now considers how the aspects will provide a structure that would best suit a collection of information which does not dictate a question and answer regime, does not wish to promote bias and would encourage a wide range of information to surface without forcing preconceived meanings.

1.7.3 M.A.K.E. facilitating the use of Aspects in interviews

The researcher wishes not to dictate preconceived questions and to explore how to allow the aspects to provide an underlying structure to guide the interviewees. From this point a technique for using the aspects as an interview format must be realised. Fortunately, as noted, previous research by Winfield (2000) provides the aspects in an interview situation to elicit knowledge from experts which gives a starting point for the researcher to work from. Winfield's research centres around actualities, that is, knowledge that is already formed and of which the interviewee has confidence, while this study of mature students is in regard of potentialities, that is, what might be a probable grey or vague area of what they consider to be important both in their educational experience and in all other areas of their lives, which may well impact upon their educational experience. Winfield's interview format, the Multi-Aspectual

Knowledge Elicitation (M.A.K.E) model does not divorce itself from potentialities, this in fact could not be the case as the aspectual suite provides a basis of communicative referencing from any perspective in which the interviewee situates their commentary. However, Winfield's purpose (set as a hypothesis) was to procure statements of expertise and chose the respondents appropriate to this purpose. Therefore, the model in Winfield's research was directed towards the stated purpose and while it met that purpose it also obtained a range of information that may have been useful in other eventualities.

1.7.4 MAKE as a starting point

Exploring potentialities is not in opposition to this but nor is it a particular consideration. Given that this multi-aspectual model has been previously applied in the interview situation, it is reasonable to suggest that this be the starting point when using the aspects in this research situation, but also to be mindful of additional requirements which may arise in respect of interviewing mature students in I.T./I.S. about what is important to them.

1.8 The research situation

This research engages with mature students studying at a North-West University and a North-West Further Education College. While educational institutions officially place anyone over twenty-one as a mature student, this work considers the experiences of those who are somewhat older. The majority are 35-45+ and a substantial number are 25-34, the remaining minority are 21-24. The older, mature students were sought due to their more extensive life experience. While it is true that some younger people can be seen to have greater experience in some areas than some older individuals, life experience is all the greater in those who have been in the world for a greater length of time. The two groups who will be interviewed for this study are different as there are those who have chosen I.T. as a main study area and those who study I.T. as part of their course structure. Differences in regard to this will be considered in the resulting data. The groups are also different because they are made up of individuals studying in further education (college) and higher

education (university). Any differences which emerge in the data regarding this will also be considered. But the two defining factors across the two groups are that they are all mature students and are all studying I.T. at a certain level. Therefore, in short, the aim of this research is to explore the experiences of mature students studying I.T. and also to explore the framework (The Suite of Aspects) utilised to gather the information in this project.

1.9 Research Aim

This research aims to develop an alternative method for qualitative interviews for considering what is important to mature students studying I.T. The aspectual interview process is presented here as an alternative. The Suite of Aspects is assessed for its ability to discover what is important to mature students of I.T., how it discovers this information and the importance of the aspects in doing so. This will be considered as an essentially holistic approach to interviewing concerned with highlighting people's thoughts and feelings. Emotional and very personal references may be contributed by the interviewees and while it takes experience and skill on behalf of the interviewer to cope with such circumstances, it is thought that the aspectual framework will aid the researcher in managing the interview situation as a whole.

The potential here is to explore whether Dooyeweerd's aspects are useful in finding out a wide range of information including the aspirations and potentialities of mature students studying I.T. That is, to: explore Dooyeweerd's aspects as a framework to interview mature students, develop an information gathering technique based on the framework and explore the capabilities of the technique.

It is hoped that the information which is obtained regarding the mature student experience will be of use in the widening participation debate and perhaps provide some insights that may assist other mature students when considering I.T./I.S. as a subject of study.

1.10 Scope of research leading to the research focus

The researcher will consider a variety of factors regarding mature students studying I.T./I.S including what it is that is important to them and how to obtain a wide range of information in this area. Such considerations lead to the scoping of the research. This research is not about learning styles or how I.T. fits into the learning process for mature students. The fact that they have already chosen to return to learning and are managing that process in what ever way they consider best suits them is a given factor, in addition they are either using I.T. on a small scale or in an extensive way, again from their own perspective of how it is or is not useful to their learning and lifestyle as a whole. The work here does not seek to judge these individual choices. What this research does intend to do is collect and explore a wide range of data from the experience of mature students who are studying I.T. The researcher seeks to find 'what is important' to these mature individuals who have chosen to return to education and either by chance or design are studying I.T. Why they chose to return to education and what is important to them is the premise from which we start to build a picture of the mature student experience in the context of both further and higher education. From the wide range of information gathered the emerging categories of data will provide the focus of what may be appreciated from the overall data collection exercise. The framework utilised to gather the information will be assessed for its capabilities in enabling this process.

As already noted, the three main areas of contribution which are sought begin with finding out about mature students in I.T. to make a contribution to an area where research is lacking. Next is how information can best be gathered in this area, making a contribution to the aspects firstly in research and more specifically as a qualitative interview method.

1.11 Conclusion

While it can be seen that a variety of research regarding mature students has been carried out, research specifically regarding mature students studying information technology is sadly lacking. Therefore, what is important to them, why they began

studying I.T. and what it means to them in everyday life and/or professionally is unknown. It has been shown that the UK Government describes mature students as a specific group and that they have concerns about this social group regarding their knowledge and experience of information technology. The existing body of knowledge as represented here in regard to the three main areas of importance for the research suggests that the mature student body is under-represented in information technology research. Considering the government concerns, the widening participation issues which are relevant in every discipline and the fact that many mature working adults find it necessary to update their I.T./I.S. knowledge and practice, it is surprising that this and concerns about how to gather information about this is not a more active area of research.

1.12 Structure of the thesis

In order to provide a coherent representation of the research carried out, the organisation of this thesis begins with an overall research summary which leads to the following chapters:

Chapter 1 – Introduction; this provides a detailed introduction to the research study, the reasons for this work, the main areas of research importance and the scope, focus and aim of this study.

Chapter 2 – Existing Bodies of Knowledge; is a literature review of the subject area relevant to this work. That is, interviews and related issues, adult learning, adult education relating to information technology and information systems, mature student education, I.T./I.S. as a discipline, profession and vocation, Philosophy, Dooyeweerd's Aspects and Grounded Theory.

Chapter 3 – Approaches to Research; is the researcher's consideration of alternative methodologies which leads to the explanation of the eventual choice of methodology.

Chapter 4 – Methodology for this study; presents the methodology utilised in this work to study mature students of I.T. In addition, how the dual role of interviewer and researcher is managed in this instance.

Chapter 5 – The Study; is the story of how the interview process was utilised, amended and applied differently for the benefit of two separate groups. As a result of this, the data collection method and the data is under study here.

Chapter 6 – Analysis Section One; this part of the analysis presents the recorded data in reference to each aspect and provides graphical representations and an ongoing commentary of the data collected.

Chapter 7 Analysis Section Two; specifically assesses the Suite of Aspects through the M.A.K.E. and M.A.I.T. models as useful for the purpose of interviewing.

Chapter 8 – Research Findings; leading on from the analysis this chapter presents the research findings. The aspectual interview process is assessed for meeting the stated research criteria. The data is assessed through the emergent generalisations as categories.

Chapter 9 – Discussion; the elements which are particularly pertinent to this study are the stories of the mature students themselves, and the aspectual interview formats which were utilised here. These elements are discussed alongside other primary and secondary findings.

Chapter 10 – Conclusion; in this chapter, the summation of the whole research project and conclusions derived from this are presented.

Chapter Two

Existing Bodies of Knowledge

2.1 Introduction

When considering how to acquaint oneself with a way to approach the business of studying a subject area, it is as well to consider what has gone before. Most mere mortals do not have time to re-invent the wheel each day and there is little point in doing so. Therefore a consideration of the knowledge which already exists in regard to the main research areas in the subject should be acknowledged. As noted in the previous chapter, there are three main areas of importance in this work:

1. Mature students studying I.T.
2. Ways of finding out what is important to mature students
3. The notion of 'Aspects' which will aid this exploratory study.

The existing body of knowledge regarding the first area of importance (Mature students studying I.T.) is represented in this chapter by the sections on adult learning and I.T./I.S. adult educational research which also includes professional/vocational issues. The second area of importance (Ways of finding out what is important to mature students) is approached in the interviews section. It will become apparent later in the research that after considering other ways of obtaining information about mature students, the interview method became the method of choice. Here, therefore, the possibility of a new qualitative interview method to provide a wide range of information and unearth what is important including aspirations and potentialities is explored. In this instance the group of interviewees are mature students in I.T./I.S and therefore, interviews generally in qualitative research are of interest as is research which relates to mature students who are interviewed by the new method. Areas which suggest themselves as relevant to the mature student group are: adult learning, IT/IS Adult Education Research, issues of profession/vocation.

The third area of importance (The notion of Aspects in exploratory work) is considered by representing the existing body of knowledge in the sections noted as Philosophy and Dooyeweerd's Aspects. Philosophical implications were in the mind of the researcher from the beginning and therefore relationships to various philosophers are found throughout the thesis. However an overall review of philosophy is placed at the end of this chapter in an attempt to provide some reflection on each of the previous subject areas. This leads to the final section, Dooyeweerd's Aspects.

2.2 Interviews in qualitative research

There are always 'more questions than answers'. However, today as in the past researchers are concerned with the difficulties of interview questions. Some perceived lack of interest in addressing this issue is suggested by Gallup (1947) and his words are reproduced in Foddy's work (1993). *"...relatively speaking, too much attention has been directed toward sample design and too little toward question design"* (Foddy 1993, p.ix). Also reproduced in Foddy (1993) are the words of Belson (1981) who when talking about question design said; *"It is to nobody's credit that anything so important...should have been so neglected"* (Foddy 1993, p.ix). In addition, Fowler and Floyd (1988, p.14) talk of question design as *"largely unamended since the early 1950's"*. Others are perplexed by the de facto acceptance of the interview.

2.2.1 Interviews and conversations

Interviews can be simply accepted as conversations but there are problems with this perception as noted here by Briggs:

> *"Most authors simply assume that they and their readers already know what interviews are all about. These writers thus rely on their status and that of their audience as members of a society in which interviews are an established speech-event type. The presumption seems to be that native speaker status enables the authors to forgo the need to examine the nature of the interview as a communicative event."* (Briggs 1986, p.21)

There is a general commonsense acceptance of what an interview is or should be. Everyone seems to know what that is or at least believe that they do. However, this commonsense phenomenon has both advantages and disadvantages. The main benefit being that we can all relate to a process which we think we know and understand, however this leaves the method open to misunderstandings and misuse. In addition to this a naïve belief in our own complete understanding may prevent deeper consideration of methodological and theoretical errors to the detriment of the interview process. This view is noted by Cicourel (1982) when he is quoted in Foddy (1993) speaking about a *"...lack of clear theoretical concepts about the interpretation of interview and survey question and answer frames"*. He goes on to suggest that *"We lack a theory of comprehension and communication that can provide a foundation for the way question-answer systems function"*. (Foddy 1993, p.10). The generally accepted view of interviews suggests that the selected interviewees know the answers to the interviewer's questions and all that is necessary is to extract the information. This is the objective truth as provided by the interviewee and the interviewer as gatekeeper somehow knows how to receive and reference this information. However, this is not a process which neither occurs in isolation, nor is the information passed as a single clean factual phrase, it may be affected by many different elements as is noted here:

> *"Interviewees do not draw, even ideally, on a fixed idea or feeling in answering a question, but connect questions with some element or elements of a vast dynamic range of responses. Because the interview itself is a social interaction, it provides another impetus for generating new reactions".*
> (Briggs 1986, p.22)

2.2.2 Interviews constraining respondents

An additional point about the wide-ranging nature of the interview process is intimated by Wolfson:

> Wolfson states: *"...interviews constrain the presentation of many types of forms and of certain topics and alter the manner in which observed features are presented. One rule takes precedence over others – the need to adapt the*

forma and content of the information in order to make it apparent that it provides an answer to the question". (Briggs 1986, p.23)

Qualitative research and in particular the social sciences depend heavily on the interview as a data-collection method.

> *"Research in the social sciences is the great bastion of the interview. Estimates suggest that 90 percent of all social science investigations use interview data (cf. Brenner 1981b:115)".* (Briggs 1986, p.1)

2.2.3 What is an interview?

So, what constitutes an interview?

> *"...the collection of data must occur in a face-to-face situation. The interaction must also occur in a research context and involve the posing of questions by the investigator".* (Briggs 1986, p. 6, 7)

This is a rather narrow view of the interview process especially when considering that telephone interviews and on-line interviews are not now uncommon. Interviews of one form or another are an integral part of our social behaviour. A range of social interview situations dictate our place in society. This might be a job interview, access to education, contact with services, persuading a bank to allow a mortgage and many other instances where we wish to establish ourselves in a good light, we therefore naturally attempt to cover any undesirable notions, this is highlighted by Kahn and Canell:

> *"Since we are all ...communicators, why is an interview not a simple...interaction? Some [reasons] are related to the very fact that we are so experienced in communicating...we have developed ways and habits of reacting to each other..[they] help us protect ourselves against making some undesirable revelation...Most of us recognise that all manner of forces are exerted upon us through communications from other people".* (Kahn & Cannell 1957, p.6)

In addition to these 'forces' and of particular importance to this researcher is the fact that interviews have become a de-facto foundation of data-collection for which there

is often little structured explanation, although the reader is expected to recognise the interview method as theoretically sound in order to accept the research findings.

2.2.3.1 Concerns regarding research interviews

Briggs (1986) writes of being particularly concerned about researchers. He considers the importance of understanding *"basic methodological and theoretical problems"* and also being aware that *"social norms are presupposed"* in discourse. In addition, concerns about influencing the interviewee by dictating the circumstances and imposing interview techniques are said by Briggs to have:

> *"...serious political implications [and]...They indicate that social research is characterised by less sensitivity and willingness to expose oneself to other modes of learning than we may have imagined"*. (Briggs 1986, p.4)

Briggs (1986) outlines the difference in basic interview types by suggesting that sociologists differentiate between standard and non-standard interviews. The standard interview consists of a list of questions which are applied in each interview in a consecutive manner. The non-standard interview also has a list of questions but the order may be changed. However, it is not simply the structure of a list of questions which concerns researchers and outlines a type of interview. When considering interviews in positivist and critical research, Guba and Lincoln in The Handbook of Qualitative Research (Denzin & Lincoln 1994) suggest the researcher (or inquirer's) voice is mirrored as that of the *"disinterested scientist"* in positivism and post-positivism. While the voice mirroring the inquirer in critical theory is that of:

> *"expanded consciousness and so is in a position to confront ignorance and misapprehensions..."* (Denzin & Lincoln 1994, p.115)

It soon becomes apparent that the word 'interview' is an umbrella term which covers myriad types of verbal interactions.

Maynard and Purvis (1994) in respect of feminist research note semi-structured and unstructured interviews as the method most associated with a feminist research stance; this, in part is suggested as a backlash against what were regarded as 'masculine' and supposedly "value-free" quantitative methods. When discussing the collection of data in the social context Brenner (1981), states the problems as causal laws being the expected outcome but this necessitates the following of explicit rules to determine truth. The causal laws paradigm is noted as demanding deductive theory and presuming that the method of data-collection is transparent. Brenner suggests that this type of paradigm is accepted as problematic. This shows the often incompatibility with measurement theory and data about everyday life. A reduction in relevance and realism are suggested as concerns, as is the problem of constantly asking the wrong questions and difficulties of bias. While Brenner is interested mostly in psychology, this does show that there are a repeated set of issues which concern many researchers in different disciplines who make use of the interview as a data-collection method.

Holstein and Gubrium (1995) suggest that the majority of researchers judge interviews as social interactions, but with the concerns of gaining valid data, the intentions for which causes bias, mistakes and misunderstandings. To quell such anxieties, they believe that the researcher lives under the misapprehension that:

"The corrective is simple: If the interviewer merely asks questions properly, the respondent will emit the desired information". (Holstien & Gubrium. 1995, p.3)

They also present various researchers who have sought to overcome a variety of difficulties in the interview as a method. While various problems are noted, the shared paramount issue is stated as the need to develop an increased understanding of the meanings provided by interview respondents. Both the interviewee and the researcher are described as 'active' showing that they are both involved in 'meaning-making' as a joint collaborative process.

2.2.3.2 Interviews – historically and in a variety of social groups

A detailed presentation of the interview in its many forms and the history of the interview is provided by Gubrium and Holstien (2002). The interview is interestingly positioned as a new element of recent history given that, until the end of the Second World War, information was necessarily viewed as secret. It has been suggested that democracy is a qualifying factor in the development of the interview, most importantly because the individual becomes subject as individual rather than an object which is an appendage to the sovereign figurehead for instance, which could be dealt with as seen fit by the sovereign without the consideration of individual rights, Foucault (1980). He also suggests that our own sense of subjectivity is the way in which we determine and change our own identities, through self-reflection we are subjects.

The intricacies of the interview in all its forms and the social and culture elements which lie behind this process give some indication of why it is not a simple method or tool as is substantiated by Gubrium and Holstien as follows:

> *"The interview is part and parcel of our society and culture. It is not just a way of obtaining information about who and what we are; it is now an integral constitutive feature of our everyday lives".* (Gubrium & Holstien 2002, p.11)

It can be seen that the interview is not a singular entity, that is, it ranges from individual interviewing of women, men (Coates 1993) and children (ESRC 2001-3), which may incorporate issues of gender (Roberts 1981) and self-consciousness (Coates 1993) through to even more specific content such as propaganda (Merton 1968) and interviewing about health and illness (Silverman 1987). Silverman's work – Qualitative Research: Theory, Method and Practice (1998) also notes the comparatively high use of qualitative interviews in sociology and information systems research, and the difficulties with the method. In addition, there are the technological issues of internet interviewing, telephone interviewing etc. This vast

range of elements which all require consideration in certain circumstances can not be regulated in one form. However, it is hoped by this researcher that the use of aspects in the interview format may prove over time to be valuable as an aid in many different interview situations. The way in which the aspects as an interview format is proposed as meaningful and how it will be utilised in this study, is provided in the following section.

2.2.4 Wide ranging interviews - How aspects can help in interviews

The researcher makes note later in this work during Analysis Two - sections 7.1, 7.2 and 7.2.3 and the Discussion chapter sections 9.4.3 and 9.7.1, to the emancipatory style of the aspects as an interview technique which allows the interviewee to speak about a range of issues which may not ordinarily evolve within the interview situation or may be thought of as delicate or unmentionable by the interviewee. The following quote suggests that such restrictions are a concern for other researchers:

> *"Ethnographers sometimes note that other groups have different kinds of restrictions on who may ask what questions of whom in what circumstances"*. (Briggs 1986, p.10)

2.2.4.1 Importance of reliability and validity

As well as the issue of restriction in the interview process, reliability and validity of both the data and the interview method should also be of concern. Reliability relates to universals or repetition meaning that the interview procedures when repeated will present the same results. Validity regards the exactness of the outcomes, whether the interview method provides information relevant to the research event.

2.2.4.2 Concerns about bias

Even after these considerations there is still the element of contamination or bias which was represented rather starkly by research from the Tavistock Institute in the Nineteen Sixties and still causes problems for today's interviewers:

> *"...no human being outside a mental institution can meet another without making some kind of response to the other's personality... Although the interviewer and even the interviewee may be consciously trying to collect*

objective information, their whole upbringing and environment is encouraging both of them to form impressions of the other person..."
(Sidney & Brown 1968, p.216)

In concurrence with this, 'Bias theory' suggests that both interviewer and interviewee may introduce bias which can impair the validity and reliability of the research outcomes. Brenner (1981) suggests that if elements such as age and gender were removed there would be an individual true response. To achieve this all measures should be taken to reduce any bias effect on the data collected. However, this may also be seen to provide a false sense of purity in the data which is not humanly possible to achieve on a practical level. In addition it may lead to a climate of reductionism preventing a richness of data. The utilisation of aspects as a way to avoid reductionism is noted by de Vries (2003) and the order in use of aspects is also noted by de Vries (2005). But this is not to say that bias should not be considered and highlighted in aspectual research. Bias may be said to come from a vast array of variables such as age, gender, culture etc. While such elements cannot be factored out at the point of data collection it is as well that the researcher is aware of them and acknowledges their presence. Oppenheim believes that considering an interview as a conversation is a way of producing bias:

> *"Although words and sentences are exchanged in both directions, an interview is essentially a one-way process. Indeed, if it should become a two-way process of communication (more like a genuine conversation), it will lose much of its value because of the biases introduced by interviewer".*
> (Oppenheim 2003, p.66)

2.2.4.3 Freedom in aspectual interviews

The researcher is hopeful that the aspectual format provides a middle ground here, with a framework that can be referenced and utilised for the encouragement of the interviewee rather than the situation depending upon a list of predefined questions or any discussion strictly from the perspective of the interviewer. The problems associated with interview questions are many in number but Payne (1951, p.16) in his seminal work regarding the methodology of question formulation, 'The Art of Asking Questions' states a *"common origin"* for all such problems. That is, *"taking*

too much for granted...as question worders we need to develop a critical attitude".
Qualitative researchers are dependent to some degree on the questions and answer
process, and the difficulties which go along with this method are not overlooked by
later researchers, though it is suggested that not enough has even begun to have been
done:

> *"such an entrenched interest in the use of verbal data would not, in itself, be*
> *a bad thing if it could be shown that it is always, or even usually, leads to*
> *valid conclusions in social research. Unfortunately, it must be admitted that*
> *our ability to construct questions which produce data that are reliable and*
> *lead to valid conclusions has not been very impressive to date".* (Foddy
> 1993, p.2)

Foddy (1993) also presents evidence to the fact that respondents often misinterpret
interview questions, respondents' answers can be affected by the question format
and various other issues which influence the interview as a method. However, with
all its problems the interview continues as a mainstay of qualitative research and
some heart may be taken from those who promote the innate ability of human beings
to make use of the interview process.

2.2.4.4 Difficulties for interviewers

The researcher accepts that interviewers in every discipline will not have the benefit
of a professional linguist or anthropologist. Therefore, it is heartening that
interviewing has been noted as a skill that can be acquired rather than an inborn gift.

> *"...interviewing is a skill that can be taught. There are two basic ingredients*
> *of a successful interview: content and conducting. Content refers to the*
> *topics and questions covered in the interview; conducting refers to the way in*
> *which the interviewer covers the content".* (Goodale 1982, p. 7,8)

2.2.4.5 Aspects as a helpful alternative style of interviewing

While studying the art of interviewing is an option, often time is of the essence
especially where research projects are concerned. The fact that researchers from the

majority of disciplines utilise the interview as a data-collection method for both quantitative and qualitative information suggests the necessity of a format which provides a structure that is an alternative or an addition to the usual question and answer formula. The aspectual format provides this and in also doing it promotes the contemplation of method and theory of this data-collection tool along with philosophical considerations which will provide insight to both the reader and researcher alike.

2.3 The interviewer/interviewee relationship

While researchers in the positivist tradition hope to attain a pure, as close to mirror image of reality in society as possible, the opposite pole is the extreme social constructivist who suggests that no knowledge of reality in society can be found through the interview as the interview itself is a construction. However, if knowledge of the social world is to be gained, the interview as a method is an instrument of paramount importance which should neither be viewed as sanitised like a test tube nor discounted as an event only recordable as an occurrence of itself with no relationship to the outside world. This dualism does not help the researcher to use the interview method unless they force themselves into the extremes at one or other end of the spectrum. Some way between the two poles is the territory of the social interactionist, providing an anti-dualistic proposal Miller and Glassner in Silverman's (1998) Qualitative Research: Theory, Method and Practice, suggest that:

> "Dominant discourses are totalizing only for those who view them as such; they are replete with fissures and uncolonized spaces within which people engage in highly satisfying and even resistant practices of knowledge-making". (Silverman 1998, p, 100)

A part of this system of discourse is the interviewer who must be socially acceptable in the eyes of the interviewee:

> "...for a successful interaction to occur it is essential that the interviewer be perceived by the respondent as being "within range" of communication... "
> (Kahn & Cannell 1957, p.234)

This suggests that the interviewee must relate to the interviewer in some way, assimilation due to shared age, social class, attitude or any other factor helps towards an amenable relationship and a relaxed atmosphere. Therefore, if the interviewer is considered part of the same social group as the interviewees this will advance the interview process. In this case the interviewer is a mature student of I.T./I.S. and therefore within the same social grouping.

This section which represented a range of literature regarding the interview process now leads on to considering the group of individuals who are interviewed for this study, that is, mature adults who have returned to education.

2.4   A general history of adult learning

Adult learning has a long history and there are many theorists and educators who have written on the subject of learning. The following section provides an outline of some of those who have related elements which are particularly pertinent to adult learning such as self-direction, experience and self-reflection.

Adult education is a subject with a fragmented history. Individuals have always found it necessary to update their level of education and skills subsequent to leaving mainstream education. Now we have a substantial percentage of adult returners and this promotes attention toward the needs of the adult learner. Lieb (1991) underlines the importance of the self-direction of learners and also relates to adult goal-oriented behaviour and the need for relevance of a subject to be explained. Lieb highlights the importance of adults understanding the reasons for learning something and how it will be of use to them.

The philosopher and pragmatist John Dewey (1897) writes of human beings forming habits from experience which influence further learning. He suggests that if the habits of students are not acknowledged they cannot be redirected by educators toward learning goals which they have not themselves chosen. The work of Dewey

shows the relevance of the level of understanding of the student toward a learning purpose especially when these would not be chosen through 'habit' or 'self-direction'.

Many other theorists have applied their knowledge and experience to the subject of learning. Benjamin Bloom (1956) and a team of educational psychologists compiled levels of intellectual behaviour in learning; this became known as Bloom's Taxonomy. Cyril Houle (1961) compiled a typology of learners and other researchers identified additional orientations but it is widely accepted that they can all be reduced back to Houle's typology of motivated, goal-oriented, activity-oriented and learning-oriented. Allen Tough (1979) built on the work of Houle and also writes of adult learners as 'self-directed' and outlines anticipated benefits at various stages of an individuals' work. Although his research was not specific to the achievement of credits as in a degree course, his work highlights adult planning of learning activities. Theories represented here share an indication of self-directed learning constructed at least in part by the learner.

2.4.1 Other theorists/theories

Mezirow (1991) and other theorists provide work on the transformation theory, much of which promotes the importance of individual perception. Barnett (1997) suggests the bigger picture of social inclusion, stating that critical thought is not enough and he promotes 'social and personal epistemology'. Karl Popper's (1972) learning theory presents 'horizon of expectations', which is the summation of our individual expectations which are different for each being and how this affects the frame of reference. Popper suggested that we learn in order to change our expectations. He also suggests that new knowledge from problem-solving is a process of correcting previously acquired knowledge rather than building upon it. This is a very different view than the widely held notion that we build on knowledge in order to fill the gaps in our education. Gestalt theorists also posited learning as problem-solving. Gestalt in psychology is the perception of a whole being greater than the sum of the parts. The gestalt is changed through the solving of problems,

thus changed parts of the old gestalt becomes a new gestalt (a new perspective). Many other theorists use differing terminology for point of view or meaning perspectives: for example Checkland's (2000) 'worldview' (each individual's different perspective) and Kuhn's (1970) 'paradigms' (ways of referencing beliefs, ideas, values etc in a scientific context) provide perspectives for guidance. However a meaning perspective does not have to be written or verbal, thoughts and actions promote different meaning and learning perspectives. Learning is a multifaceted experience further developed in adulthood to the advantage of the individual. Adults have the responsibility for their own progression and individualise this by managing their time and resources, as a result they utilise their own self-direction. Many adult learners restart their learning process from a basis of experiential learning as this is how they have developed outside of the educational process. Therefore experiential learning is particularly important to their learning experience.

2.4.2 Experiential learning

This section considers the importance of experience in adult learning. The work of Rogers and Freiberg (1994) and Kolb (1984) represents experiential learning and highlights the specific needs of the learner where learning experience involves the learner's focus on problem-solving. David Kolb's learning cycle promotes the self-directed adult learner framework through four specific points in the learning process. The cycle is represented as 1. experiencing, 2. reflection, 3. conceptualisation, 4. planning. Lack of reflection is linked to low progress but each step is equally balanced in importance. Kolb also suggests four learning types as do many other learning theories. Although they are often named differently there is wide agreement of equivalent meanings. Kolb notes the four learning styles or types of learners as imaginative, analytic, common sense and dynamic. Roger's theory came out of the humanistic approach and is primarily based on problem-solving; it is most applicable to adult learning, and has influenced adult learning theories such as Knowles work on andragogy. Andragogy, or adult learning, was promoted by Knowles (1984) and again highlights experiential learning, self-motivation and problem-solving. Carroll's 'minimalism theory' (1998) which has its roots in

constructivism promotes the importance of learning activities which are self-directed. Knowles' Andragogical Principles and Carroll's Minimalist Theory originate from the emphasis of building upon the experience of the individual. The two theories share the elements of meaningful learning, self-direction and problem-solving. While the work of Knowles provides a basis of reflection for the individual learner, Carroll's work provides a task-orientation template. Carroll's approach to task development skills for computer users is a relevant point from which to begin but as the individual acquires skills and moves through stages of development Knowles' Theory allows reflection and self-evaluation.

2.4.3 Andragogy and Pedagogy

2.4.3.1 Knowles

Malcolm Knowles work made the term andragogy popular, at least in the United States. He promoted adult learning or 'andragogy' as different from child learning, 'pedagogy'. Knowles defined andragogy as 'the art and science of helping adults learn'. One particular premise outlined in the difference between adult and child learners is that the adult learner is a self-directing human being. Although Knowles promotes the differences between andragogy and pedagogy he does not claim that one is better than the other or in fact that they should be segregated. Traditionally pedagogy, which is the conventional objective model, relied on experts to instruct learners about an accepted reality. This teaching style is not open to question by the learner and is used extensively when teaching children. When this model is used for the education of adults it is up to the knowledge facilitator whether the framework is more flexible. Modern teaching practice has seen Pedagogy develop in various formats. Andragogy per se has not been adopted in the United Kingdom, but the specific needs of adult learners are most often represented as a pedagogical approach for adult learning.

From the standpoint of the mature student, the style of andragogy is likely to be preferable to traditional pedagogy as pedagogy has historically been the format applied to teaching children. The definition of pedagogy is easily found in most

dictionaries, unlike the definition of andragogy which is rather more elusive (not present in the Oxford English Dictionary hard copy or O.E.D. online). However early European adult educators noted the differences in teaching children and adults. In the early 1920's German social scientist Eugen Rosenstock suggested that:

"It is not enough to translate the insights of education theory [or pedagogy] to the situation of adults" (Knowles, Holton & Swanson 1998, p.59)

As a teaching and learning structure pedagogy is named as being used widely in educational institutions and while it promotes the learner's dependency on the teacher, facets of andragogy or self-directed learning have been introduced at many levels. This is not to say that either method should be isolated as a type useful for only the young or adults. However it must be noted that Pedagogy is a general term which is accepted as generic for the teaching and learning or all ages. Modern terms such as Problem Based Learning (PBL), Interactive Approach to learning, Blended Learning and of course e-learning made possible by communication technologies are considered to be particularly useful for adult learners, however they are often still said to be based on a pedagogical approach. Therefore the term Andragogy now may well be said to be a part of the extended system of Pedagogy, certainly the term Andragogy has not made any great impact in the United Kingdom. Therefore Andragogy is made note of and explained here but has come to be seen by the researcher in the wider sense as a part of a Pedagogical approach which has been adapted for adult learning.

2.4.3.2 Freire

While Pedagogy can be viewed as the format for teaching children and as an extended template which can be amended to support adult learning, its influence reaches further than that into the fabric of education which itself is open to manipulation by other forces. This is stridently outlined by Paulo Freire when he suggests that social and political elements can produce oppression in the educational context. Freire condemns the act of teachers depositing information into students as if they are containers to be filled, calling this the "banking concept of education"

(Freire 1996, p.53), "For apart from inquiry, apart from the praxis, individuals can not be truly human".

The following statement made by Freire is particularly significant in mature student education:

> *"Education must begin with the solution of the teacher-student contradiction, by reconciling the poles of the contradiction so that both are simultaneously teachers and students".* (Freire 1996, p. 53)

It will be seen later in the thesis that various comments in the research interviews conducted for this study show concerns that mature student returners are not treated as they are in society and in the workplace, that is, as adults. While it may be suggested that it is up to the student to change their frame of reference on re-entering education, Freire states otherwise. He is concerned that teachers, lecturers, educators of any ilk, can be oppressors or dictators and that this may manifest in the belief that changing the attitude and view of students to a subordinate position is the way forward rather than the more useful and radical although difficult proposal of changing the situation to accommodate the learner (Freire 1996).

Freire holds great store in the importance of the relationship of experience to education:

> *"Studying is, above all, thinking about experience, and thinking about experience is the best way to think accurately. One who studies should never stop being curious about other people and reality. There are those who ask, those who try to find answers, and those who keep on searching".* (Freire 1985, p.3)

Although Freire's work was carried out in countries restrained by great social inequality (Brazil in the early 1960's), his deep and meaningful analysis of the oppressor and the oppressed should not be thought redundant as inequality always shadows society and therefore holds relevance in education and life-long learning, particularly when dealing with those who are less likely to be included in the overall plan of education.

Additional views of the learning process are outlined in the continuation of this section under the headings: Single and double loop learning, Hermeneutics, Constructivism, Behaviourism. Moving on from this, I.T./I.S. adult education research is presented.

2.4.4 Single-loop, double-loop and triple-loop or deutero learning

Argyris and Schon (1978) describe three types of learning:

- Single-loop learning occurs when errors are detected and corrected without any change in basic knowledge or belief system. Single-loop learning is an acceptance of change without questioning assumptions or beliefs.

- Double-loop learning happens when, further to detection and correction, modified behaviour occurs from questioning the status quo. Therefore a change in knowledge comes about.

- Deutero-learning/triple loop learning occurs only after single and double-loop learning, the proviso of which is the recognition that learning must take place. Deutero/triple loop learning along with double-loop learning is concerned with why and how to learn. Argyris and Schon states that essentially, triple-loop learning is double-loop learning about double-loop learning.

Just as Freire's radical pedagogy insists on the individual's critical thinking, Argyris (2005) and Schon (2005) promote self-reflection in action suggesting that single-loop learning occurs when we solve a problem within the boundaries of that which is already known and accepted practice (detection and correction of errors) while double-loop learning takes place when a wider consideration of alternatives are assessed and implemented (the questioning of variables by critical examination). This is an everyday process that mature students involve themselves in as their creative solutions balance work, family life and studying as a form of everyday practice, often unaware of their range of expertise. This balancing act also involves a

constant reassessment of possibilities, aligning it with the natural application of the hermeneutic process of regularly integrating the parts and the whole of experience which supports their decision making.

2.4.5 Hermeneutics - the relevance of a holistic attitude to adult learning

In the strictest sense hermeneutics is the theory and methodology of textual interpretation, the explanation which specifically relates to the interpretation of scripture. However, Burrell and Morgan (2000, p.235) represent hermeneutics as *"interpreting and understanding the products of the human mind"*. They particularly credit Dilthey as providing hermeneutics as a "school of thought" and illustrate this via his view of the hermeneutic circle of which the iterative whole-part relationship governed as "methodical rules of interpretation". As a general theme the hermeneutic circle is a process of constant reflection as a natural and instinctive progression and is often operational tacitly, and is therefore noteworthy in this instance. The core of the process is the inability to understand the whole without understanding all of the parts (showing a relationship to Gestalt theory), therefore constant progression of understanding between the whole and the parts must take place. This type of reflection is implemented by adult learners in order to build upon their previously acquired foundation of knowledge. Hermeneutics is not a singular philosophy; objectivist/conservative hermeneutics shares the same theory of knowledge as interpretivism, that is, a subjective empathy. However, philosophical hermeneutics based on the work of Heidegger does not accept that self-understanding or empathy play any part in interpretation and are said to distort the interpretation. That is not to negate the importance of self but to place it prior to the cognitive process. Perception or pre-reflective learning allows decisions to be made before social pressure augments thought. This is prior to linguistic action. (Denzin & Lincoln 1994). In the area of Philosophical hermeneutics the researcher is most interested in the conditions which produce the interpretations presented and how they came about.

However, of particular interest in this study (because of the application of critical theory as a methodology), is the area of critical hermeneutics in qualitative research which concerns itself with normativity, the process is noted by Denzin and Lincoln (2000) as "bridge building" considering the whole in relation to the parts and social forces within individual everyday lives. For interpretivist researchers there is a nagging concern over the issue of proof. While interpretivism does not expect yes/no answers the mantle of positivism hangs over and gives cause for concern. Interpretivism accepts any situation as it exists, critical theory points to the social and political factors which augment situations and at the same time promotes emancipatory possibilities of all individuals while accepting that true emancipation is not possible because of the integral link between individuals and the effects of such social and other factors.

2.4.6 Constructivism in adult learning

The theory of constructivism has relevance in self-directed and therefore adult learning because everyday life shapes our expectations. Constructivism is an approach based on the individual constructing knowledge rather than simply accepting it verbatim. Exploration and self-directed learning are encouraged to enable individuals to explain their reasoning. Constructivism asserts that learning is a process of building upon previously acquired knowledge as a foundation to make sense of new experience which is integrated into the existing mental model thereby extending the knowledge base. Guba and Lincoln (in Denzin and Lincoln 1994, p.113) describe constructivism as a consensus of knowledge which accepts that a multiple of 'knowledeges' exist and are equally relevant whether expressed through the view point of: *"social, political, cultural, economic, ethnic, and gender factors that differentiate the interpreters".*

2.4.7 Behaviourism in adult learning

In opposition to the humanism of Freire's pedagogy and the importance of the individual in Andragoy, also the critical thinking proposed by Argyris, Schon and many others are the theories of behaviourism. Early Behaviourism posits that the

results of tests carried out on animals were relevant to human learning. Theories of behaviourism rely on the learner adapting completely to the environment. In addition they are viewed in a frame of passive acceptance. Knowledge is seen as objective and must be accepted as absolute in such cases. The learner responds rather than acting upon considerations. Original studies by researchers such as Skinner (1974) (Skinner Box – research on pigeons) and Pavlov - (Dog-Salivation-Experiment) (Huczynski & Buchanan. 2001, p. 113-115) were focused on the reflexes of animals and therefore not in consideration of the mental processes. They were concerned with the development of causal theories by analysing stimulus and response. This deterministic approach views animals and Man as mechanisms responding to the external conditions of their environment. Early experiments in the 1950's and 60's, led to some useful principles in skills and safety training, furthermore, *"such types of theorising and research have had considerable influence in the field of organisational studies"*. (Burrell & Morgan 2000, p.104). However they do not consider the vagaries of individual learning for an educational environment rather than a singularly responsive situation. Along with these theories is the psychoanalytical approach of Freud. The Id, Superego and Ego sectors of the personality that form the psychoanalytical approach are very interesting but it would necessitate the expertise of a psychoanalyst to adhere to such research principles. Although Freud had little to say which was specific to education it should be acknowledged that reading on these subjects provides useful insights. But, in the main, they further reinforce the researcher's alignment to social interactionism and the humanistic approach to education.

2.5   Adult education research specific to I.T./I.S.

While there is research into adults using I.T. for learning purposes, research of adults studying I.T./I.S. is not great in number. The majority of research relating to I.T./I.S. as linked to learning and education references the use of technologies which enable learning such as web-based education in distance learning or computer mediated work in classroom situations. Research specifically on the education of individuals studying I.T./I.S. is somewhat thin on the ground, although it does exist

in papers such as Trauth, Farwell and Lee (1993) when they discuss the 'expectations gap' between what I.S. student/potential I.S. professionals are taught and what potential employers expect. In addition, there are papers about methodology and ICT's in education, Somekh (2001) and I.T. in the continuing education of professionals, (Maule 1997); while these and other elements such as research into I.T. artefacts is provided, the quantity of available research specifically focused on mature students who study I.T./I.S. appears to be limited. This is a great shame considering it is one of the subjects that mature students appear to be most likely to enrol in:

> *"Mature students have particular subject choices, which are different to those of younger students. Business and Management, Subjects Allied to Medicine, Performing Arts, Mathematics and IT are all more popular with mature students than with younger students". (Ross, Archer et al. 2002)*

The UCAS figures for 2004 also suggest that I.T./I.S. continues to be a preferred subject for mature students. UCAS Group G which includes Information Systems as a subject along with Group N (Business and Administration) continues to show higher levels of mature student applications than many other possible choices (UCAS 2005 annual datasets).

While academic papers which focus on the subject of mature students studying I.T./I.S. are limited, some are available. For example, de Cogan writing about mature students in Information Systems education suggests that they "face a considerably different set of problems than the normal entrant" (de Cogan, 2005, Introduction). He goes on to present the differences between college students who progress to university and mature students who are direct entrants. It is noted that the college students experience a "less interventionist" support system at university. Along with this are other issues such as "disappointed aspirations" when mature students do not achieve their desired goals. In addition, de Cogan places many of the difficulties squarely at the feet of what is noted as "transfer problem" concluding that for many mature college students, university is not at all what they expect.

Dawson and Newman (2002) propose 'Empowerment in I.T. Education', through a method to supplement lectures and laboratory work. Based on the importance of group work, the paper also promotes the explanation of certain questions. These include the importance of developing skills and engaging in lifelong learning. Dawson and Newman promote the empowerment of the learner through reflection and internalising the learning experience. This may suggest that empowerment is also connected to self-directedness in understanding why subjects are specifically important and how they will enable the individual to build on their own considerable adult knowledge.

Allsopp (2002) considers the difference between passive and active learning in small groups. The study is specific to learning from seminars and attempts to show how learners can help themselves. Other researchers writing from teaching experience express the need for student feedback for the development of the university curriculum. A recurring theme in academic papers about I.T./I.S. education is the necessary involvement of the learners as active, self-motivated individuals. However, this research has seen mature students who do not recognise value in learning about I.T. which is of some concern. The National Institute of Adult Continuing Education (NIACE) recognises the potential of I.T. in lifelong learning but also realise the potential alienation of those without I.T. skills.

> "Home ownership of PCs has risen dramatically, as has use of electronic mail. Subscriptions to Internet Service Providers double every few months. We will see the same kind and speed of change in learning needs and learning technologies, increasingly, opportunities to learn will require the use of the technologies, and those who do not have some confidence in dealing with them will be excluded from mainstream learning and a wider society". (NIACE Telematics Group 1997, p.3, 4)

However, when statistics provided by NIACE were related specifically to lifelong learning a very different picture was portrayed:

"...ICT does not, in itself, make people anymore likely to participate in education and (re)engage with learning. We have shown how access to ICT continues to be largely patterned according to long-term pre-existing social, economic and educational factors. Thus, like educational qualifications, access to ICT is a proxy for the other, more complex, social and economic factors that pre-date it rather than as a direct contributory factor in itself. ..."
(Gorard et al. 2002, p.11, 12)

Having stated the opposite view regarding the importance of I.T. to adult learners it should be noted that this study, rather than specifying lifelong learners, concentrates on those who have returned to education for qualifications in I.T./I.S. or to qualify and work in the National Health Service which notes the European Computer Driving Licence as a benchmark for its staff. Therefore, while students of non-I.T. professions may not comprehend the relevance of I.T. in their working lives, their potential employers do. In addition to this, academics such as Manuel Castells (1996) who has written widely on the subject of the information society, references the pervasiveness of technology suggesting that while it may not specifically guide people toward structured education it is inherent in everyday life and therefore an element in everyday experiential learning.

2.5.1 Mature student research not specific to I.T./I.S.

There are a variety of areas in education where mature students as a particular group have been considered such as Green Lister (2003) who considers issues of lifelong learning for mature women students coping with family care commitments while studying social work and highlights issues of curriculum design in aiding these learners. Gardner (2001) also considers mature social work students and the importance of self-awareness. Empathy is noted as an important part of social work training and the life experience of mature students is noted in accordance with that. The area of hospitality management being studied by mature students is judged by Honey and Botterill (1999) in regard to student retention issues concluding that they are in danger of not surviving the course as less mature students than younger students complete the degree.

Mature women students' experiences of higher education in nursing is assessed by Kevern and Webb (2004), showing that fundamental changes in the curriculum are necessary to allow mature students to benefit from higher education in the same way as their younger counterparts do.

In relation to nursing studies, O'Shea (2003) considers whether mature learners are more likely to be self-directed learners compared with more traditional students and concludes that they certainly are. Self-directed learning in mature students is also assessed by Kell and Van Deursen (2000) in relation to Physiotherapy education where it is said that the mature students are more likely to be self-directed learners than the younger students, also they are far more self-dependent and therefore flexible in learning and less dependent on teaching staff.

Arulampalam, Naylor and Smith (2004) in their work considering those who 'drop out' of medical school, suggest that mature students are more likely not to complete the course than their younger counterparts. While Chur-Hansen (2003) provides a qualitative assessment of the difficulties experienced by mature medical students which are different from those reported by their younger counterparts. Among other differences the mature students are reported to prefer practical rather than text book exercises and have a greater preference to the real world scenarios of clinical contact with patients.

In a report for the Medical Education Journal, Lumb and Vail (2004) state that the performance of mature students on medical courses is extremely good. They suggest the possibility of following the American model of making medicine a postgraduate degree, while Holmes (2002) assessed how well mature students performed on a medical course which was designed specifically for mature students and Pau & Croucher (2003) consider mature students studying at dental school.

Integration and retention of mature geography students is considered by Maguire (2001) and in music education notions of talent and hard work are said to be

perceived differently by mature students in research carried out by Davis (2004), social factors being seen as having far greater importance to the mature students.

Mature students in Occupational Therapy are studied by Shanahan (2004) who concludes that mature students are not more likely than traditional students to fail in their studies.

2.5.2 Mature student research – other general issues

In addition to non-I.T. disciplines studied by mature students there is a variety of research into other more general issues in education, such as: The social, cultural and economic significance of qualifications that mature students hope to gain, which are explored by Warmington (2003) and he previously (2002) researched mature students who approach studenthood like a surrogate occupation as a way of managing and surviving the educational process.

Traditional and non-traditional entrance qualifications of mature students are considered by Cantwell, Archer & Bourke (2001) who find that these affect only marginal differences in academic outcome. The usefulness of learning through problem solving for mature students is explored by Kemp, Stewart, Fung, Orban (2002),

In a qualitative study by Given (2002) the information-seeking behaviour of mature students during their academic pursuits and that of everyday information-seeking behaviour is explored. The importance of not separating everyday experience from other endeavours is well noted.

Levels of self-esteem and the importance of this for mature students is assessed by Cantwell & Grayson (2002) in a strongly positivist study, while the fragility of self-esteem when linked to assessment of mature students is considered by Young (2000) via data collected in interpretive interviews. In addition, self-esteem and the motivation of mature students is considered by Murphy and Roopchand (2003). An

assessment of age and academic performance of mature students on nursing courses is provided by Houltram (1996) and concludes that mature students reach above average standards.

In a quantitative study of completion rates in social science degrees by Hatt, Baxter and Kimberlee (2002) it is noted that the personal circumstances of mature students can lead to non-completion of courses. They suggest that the growing diversity of the student body dictates that additional support and guidance should be provided.

The issue of mature students coping with stress is studied by Beasley, Thompson and Davidson (2003), while assessing the wide experience of mature women returners and how they learn is carried out by Peters (2000). The retention of mature students in health care is assessed by Trotter and Cove (2005) who suggest that it is difficult to provide an environment of teaching and learning that meets the needs of both mature and younger adults. They also suggest that lecturers need to be able to meet the different requirements.

In considering issues of widening participation Tett (2004) considers the problems of inequality which are embedded in the educational system in relation to mature students. Reay (2003) also suggests that non-traditional students need changes to take place in the educational sector if they are to benefit from widening participation. Reay, Ball & David (2002) reflect on educational policies that are intended to encourage mature students to access education but suggest that such policies must actively move beyond rhetoric. The concept that all ages should benefit from education is not a modern attitude as can be seen in 'The Aims of Education' by Whitehead:

> " The justification for a university is that it preserves the connection between knowledge and the zest for life, by uniting the young and old in the imaginative consideration of learning". (Whitehead, 1955, p.139).

However, we now have a rather different and more diverse student body which necessitates a range of differing issues. The difficulties of returning to education as a mature student are linked by Waller (2004) with the low self-esteem of those who feel that they failed in the educational system as young people and how this affects their personal identities. Brine and Waller (2004) consider the necessary reconstructing of identities in female mature students as they progress through a further education access course. Also, Stevens (2003) addresses the sense of self which may change dramatically for non-traditional students to the point where continuity with the past becomes difficult. The mature part-time students studied were judged to experience the transformative effect of education and the experience which mature students have and younger adults look to achieve via work placements is considered by Shepherd (1998). In the case of geography students he suggests that some advantages of work placements may just as well be provided on-campus, especially for those who already have a range of work experiences.

The issues of finance, being unprepared and timetabling of courses are reported by Bolam and Dodgson (2003) as areas which need particular support in relation to the retenton of mature students in higher education. Mature women student issues of exclusion and inclusion in their education and other areas of life is considered by Burke (2004) and experiential learning and theories by Pauleen, Marshall, Egort (2004), while mature students becoming trained as person-centred counsellors and how they consider this training is provided in a qualitative work by Bennetts (2003).

Walters (2000) looks at the motivations and expectations of mature student returners to education and how the motivations and learning styles of mature learners can assist the examination of data related to elements of lifelong learning is considered by Kinman & Kinman (2001).

Financial predicaments and the effect of debt on mature sociology students is assessed by Marks (2001) and the decision-making processess of mature students are considered by Davies & Williams (2001). Assessing mature student perception of

their own skills as relevant to their education is carried out by Sewell (2000) via a postal survey and drew the conclusion that much of what is useful external to the education process overlaps as useful skills when studying. However some skills such as essay writing, giving presentations and using information technology to aid study are often not practiced outside the educational environment and should therefore be provided through guidance and training.

Not only is the type of student in this study distinctive, so is the topic they choose to study. I.T./I.S. can be seen as different from other disciplines and it is generally accepted that I.T. is often studied not for its own sake but because it is needed for something else - (I.T. in accountancy, I.T. in education etc), and I.S. may be specific to information systems in health care or government, as such I.T./I.S. is often a means to an end or a complementary asset (Baskerville and Myers 2002, Hirschheim and Klein 2003). This makes I.T./I.S. an area of study rather different from many other subjects that are chosen specifically for their individual sake (for example: accountancy, veterinary, nursing). Therefore, the reasons why mature students make the decision to study I.T./I.S. and what is important to them, may be of use in the widening participation debate as well as assisting future mature students in their deliberations on whether to study this subject area. The level of academic papers which can be found relating to mature students in many disciplines provides some insight into the perceived level of importance and difference between them and other students. The papers are by no means exclusively educational research. The work carried out regarding mature medical, dental, nursing students, social workers, geographers, musicians etc have elements of education but the specifics are of particular disciplines.

While this array of mature student research suggests a wide coverage of mature student issues, it can be seen that very little relates specifically to mature students studying information technology. Mature students can be seen to have some level of representation in medical, social work and in various other disciplines. But this does not appear to be the case when researching mature students of information

technology, which is surprising when I.T. is ubiquitous in society, education and the workplace. The relationship between I.T. and professions is now considered.

2.6 I.T./I.S. as a subject/discipline.

When adults enter a degree programme to study I.T./I.S. they are faced with specific issues. Firstly, they study a subject for which their school years have provided no foundation of knowledge and it is a diverse topic area. Avgerou highlights the wide-ranging nature of the discipline saying;

"At best, (IS) is acknowledged as interdisciplinary, seen as overlapping with a number of established sciences." (Avgerou 2000, p.376)

Further, Baskerville and Myers (2002) propose that I.S. has 'come of age' and discuss I.S. as a reference discipline, the interlacement of technical, social and business issues do not always make clear to the student which models are appropriate in I.T./I.S. There have been various attempts to define the area of I.S. study in the search for a framework that will aid both study and practice. Bacon and Fitzgerald (2001) canvassed academic and business environments. One of the reasons noted by Bacon and Fitzgerald for the pursuit of a framework is stated in reference to students expecting *"practice-related, insightful, integrated themes, with useful models that they can take away and use"*. They suggest that without such models and themes there is often *"little rhyme or reason to the subject."* (Bacon & Fitzgerald 2001. p.47)

However a positive factor and one which relates to the concerns suggested earlier in the work of Paulo Freire is that the teaching of I.T. in particular has changed some of the dynamics within the teaching process as Bridget Somekh states when writing about technology and learning. Somekh suggests that teachers and students are not so separated by their roles as one who teaches and one who is taught. Somekh sees that due to the integrating nature of technology which means it can be learnt at home, through work experience etc, the teacher takes more of a facilitating role which allows in-depth discussions and sharing of information with individual

students, which is particularly useful in *"areas of conceptual difficulty."* (Somekh 2000, p.28).

2.7 A consideration of I.T./I.S. as a profession or vocation

As many mature students return to education to improve their career prospects, it is relevant to consider I.T./I.S. as a profession/vocation.

When mature students take on the responsibility of further education classes or make the decision to enter a degree course in higher education, their goals may include better employment opportunities and professional status. However, there is debate whether or not information technology/information systems are accepted as a profession. The New Oxford English Dictionary (1998) provides a definition for practitioner and professional but even these meanings overlap.

> *"Practician ...person who practices a profession or occupation...a practitioner."* (OED p1455)

> *"Professional...relating to or belonging to a profession...engaged in a specific activity as one's main paid occupation...having or showing the skill appropriate to a professional person...person engaged or qualified in a profession..."* (OED p1480)

Whether or not it is accepted as a true profession, managers expect I.T. and I.S. professionals and are discouraged when their expectations of these individuals are not met. The next section in this chapter addresses 'the I.T./I.S. profession/professional' from an academic perspective and 'the I.T./I.S. professional' is addressed from the learning perspective.

If we are to see information systems and information technology as a profession then its practice should exhibit certain characteristics. Johnson has noted the characteristics of a profession as:

"...mastery of an esoteric body of knowledge, ...autonomy, ...formal organisation, ...code of ethics (and) ...social function."
(Johnson 2001, p. 64.)

The five characteristics are not a set of rules but a guide, which have been promoted by historically acceptable professions such as medicine and law. However, attributes such as having a professional attitude and acting in a professional manner have become part of the language linked with professions and occupations making the divide somewhat hazy. If I.T./I.S. is a profession it differs from the historical type due to its multidisciplinary nature.

The first point made by Johnson, 'mastery of an esoteric body of knowledge' and whether the body of knowledge associated with I.T./I.S. may be judged as esoteric is open to question. Hirschheim and Klein (2003) consider this issue. They propose that types of knowledge be structured in the pursuit of a body of knowledge for I.S. They also relate issues reflected on by Markus (1999) and Lucas (1999) who make note that I.S. skills are becoming an appendage to other subjects rather than creating a strong individual I.S. foundation. At the same time Hirschheim and Klein (2003) highlight outsourcing of I.T. and I.S. as part of the process of diluting the I.S. discipline. As a relatively new subject area the multidisciplinary theme that is information systems has various acceptance issues to overcome and this may well be influencing whether or not mature students see this subject as leading to a career or even having any importance when studying for other careers. In addition it may be influencing research in the discipline away from the importance of studying mature students as a group in relation to I.T./I.S. because it could be judged to be a potentially diluting factor. If so, this would be unfortunate as this researcher suspects that it may well be the mature student contingent who see I.T. as potentially improving their professional opportunities who can provide a strong and enduring element in a diverse student body. However, any discipline which does not accommodate or even recognise mature student issues will in the long-term see such groups migrate to disciplines which do.

2.7.1 IT/IS as a profession – learning perspective

There are some difficulties when considering I.T./I.S. as a profession or vocation. Information Technology and Information Systems as a field of study is complex and multifaceted, which does not help the student in deciding what areas of study they should focus on or indeed which areas are most relevant to them and their achievements. This is relevant whether I.T./I.S. is specific to the career target or a factor in the learning process and a supporting element of the proposed career. I.S. has myriad definitions that are often dictated by the environment for which the information system will be applied or in that which they already exist. The human element is of great importance, as is ethics, organisational concerns, philosophical foundations and the list goes on. Both a body of knowledge and suitable experience are important to the development of I.T./I.S. students but the importance of linking the two together can be lost. A process of recognition to conceptualise a learned body of knowledge and practical expertise, leading to recognition by the individual of competence may permit individual confidence and capabilities to increase. The word 'profession' denotes a standard, but when this is related to a multidisciplinary subject issues of qualification arise for those within the subject area.

Through the process of this study, the researcher has encountered only one person who designates I.T./I.S. as a vocation. The word vocation is usually reserved for areas of employment such as nursing. However, the label of vocation which often goes along with the vision of administering angels has been rejected by some in the nursing and health sectors who prefer to be known as professionals. It is difficult to be precise about what is or is not a vocation but the philosopher John Dewey pointed out that:

> *"A vocation means nothing but such a direction of life activities as renders them perceptibly significant to a person, because of the consequences they accomplish, and also useful to his associates. The opposite of a career is neither leisure nor culture, but aimlessness, capriciousness, the absence of cumulative achievement in experience, on the personal side, and idle display, parasitic dependence upon the others, on the social side. Occupation is a concrete term for continuity. It includes the development of artistic capacity of any kind, of special scientific ability, of effective citizenship, as well as*

professional and business occupations, to say nothing of mechanical labor or engagement in gainful pursuits. We must avoid not only limitation of conception of vocation to the occupations where immediately tangible commodities are produced, but also the notion that vocations are distributed in an exclusive way, one and only one to each person. Such restricted specialism is impossible; nothing could be more absurd than to try to educate individuals with an eye to only one line of activity. In the first place, each individual has of necessity a variety of callings, in each of which he should be intelligently effective; and in the second place any one occupation loses its meaning and becomes a routine keeping busy". (Dewey 1999, p.234)

Dewey seems to suggest that a vocation exists in the mind of the individual. Therefore, one man/woman's profession or occupation is another man/woman's vocation. Nevertheless, there is still a particular difference seen in the interviews for this research, that being the perspective of future employment. While all the interviewees studying I.T. as part of the nursing and health care course expected and were focused on working in the NHS, the I.T./I.S. students were not all focused exclusively on I.T./I.S. professions.

2.8   Philosophy

Previously in this chapter an outline of adult learning, I.T./I.S. adult education, interviews in qualitative research and I.T./I.S. professionalism literature has been provided. The detail of literature relating to philosophy and the journey taken by the researcher in search of a philosophical perspective for this work is now provided. The implications of philosophical choice are considered imperative by the researcher and so the general route taken in this instance through the process of philosophical understanding is demonstrated in the following section. A further account of the philosophical assessment is provided in the Approaches to Research chapter.

It is the belief of the author that the philosophy of the individual dictates the acceptance of research paradigms. Therefore, we all have a world view (paradigm) based on philosophical beliefs. Positivism dictates 'structured dependable reality' and objectivity. Interpretivism accepts subjectivity and critical theory recognises the necessity for a social critique in the form of qualitative research. Each researcher

chooses a methodology which is in accord with their beliefs and many methods (which are chosen to complement the necessary work) can be used in either an interpretivist or positivist fashion while critical theory provides a context for meaning. However, this is an interpretivist/critical study and the methodology, methods and modes of analysis will reflect this.

The study of Philosophy provides a range of concepts from a variety of very different thinkers. From the time of the early Greeks, Socrates, Plato and Aristotle provided ideas from a rationalist point of view. Leading on from this Descartes as a modern Rationalist searched for a beginning point from which he could build his own philosophy. This established the famous statement 'cogito ergo sum' or 'I think, therefore I am'. After this point Empiricists such as Locke and Hume gave priority to the value of observation and the senses while Kant attempted to make a point of reconciliation or balance of both sense and reason. Other philosophers such as Hegel, Kierkegaard, Marx and Freud all provided their very individual and in-depth considerations on life, our world and other concepts such as ethics. In the researcher's limited consideration of philosophy, the importance of self-reflection and experience is of paramount importance. This reinforces the instinctual preference for the humanist tradition in educational research and strengthens the philosophical affiliation toward social interactionism/critical theory. This shows an inclination toward the acceptance of both sense and reason showing resistance to a purely positivist view.

The overarching methodology here is taken from the foundation of interpretivism, denoting a qualitative approach. However, social constructs which we can not avoid such as political and economic powers are accepted, while believing in the emancipatory possibilities of the individual and therefore denoting the influence of critical theory. Due to this philosophical and methodological foundation noted here, a method to provide a wide range of information referenced by the individual to whatever aspects they consider important, is necessary for the collection of data. To

this end a consideration of Dooyeweerd's aspects is provided in the following section and will place Dooyeweerd's Philosophy as relevant for this research.

2.9 Dooyeweerd's Aspects

There are a range of authors who have commented on the relevance of Dooyeweerd's philosophy in society. Storkey reflects on Dooyeweerd's philosophy as a timeless, enduring model saying "*All that is needed has been already worked on with care and commitment and the rest of the task is ours*" (Griffioen & Balk 1995, p.86). Also she considers how elements of his philosophy may be useful in the study of gender suggesting that: "*his modal analysis of meaning directs us to ways in which we can further explore man-woman relationship in different aspects of reality*" (Griffioen & Balk 1995, p.87). Griffioen & Balk (1995) when considering social institutions, inadvertently point out a link between elements of critical theory and Dooyeweerd's philosophy (1984, p.146) when he states: "*...the universality of the human person itself is institutionally conditioned, i.e. by the institution of the state*". Kalsbeek (1981) provides an introduction to the work of Dooyeweerd and in doing so particularly considers the structure of the Aspects and their meanings. Specifically he outlines irreducibility of aspects and so expresses the aspects as useful in theoretical thinking.

Clouser (2001) also elucidates Dooyeweed's work when he provides an explanation of the aspects as utilised theoretically and also shows how the abstraction of a complete aspect often occurs. He relates this by suggesting that research in economics is dominated by the economic aspect which will dictate an economist slant to research questions and explanations. While he notes that the researcher will not work in complete isolation, ignoring all other factors, the dominance of the one aspect is clearly shown and the importance of being aware of the aspects and using them to prompt a fuller reflection from interviewees is relevant to this researcher's work.

In research, the aspects have been used by researchers in the process of analysis, that is, aspects applied from the perspective of the researcher. Jones and Basden (2004) found the aspects of value when identifying stakeholders. In relation to education, Nijhoff (2003) recognises the aspects as an analytical framework for discussing the relevance of innovations in educational situations. Basden and Wood-Harper (2002) discuss what greater insights might be provided through Soft Systems methodology when Dooyeweerd's philosophy is considered, and Kohlera and Bergvall-Karebomb (2004) use the aspects to analyse semi-structured interviews. A very different perception of how to make use of the aspects is provided by Winfield's (2000) Multi-Aspectual Knowledge Elicitation (M.A.K.E.) model. Those who are interviewed by this process are introduced to the aspects and asked to make comment about their expertise and relate these comments within the aspectual framework. Therefore, representing the interviewee's comments from their own form of aspectual perspective, that is, how they themselves relate to the aspects. Further relationships are later made by Winfield but the initial interviewee aspectual relationships are from the interviewee perspective, making the aspectual framework far closer to self-reflection or self-analysis than when previously used by other researchers as an analytical discourse or assessment tool separate from the practical research situation and based firmly in theoretical analysis.

This research follows along the route of aspects for self-analysis in the goal of information-gathering. Even more, this work explores the aspects as a method of gaining the perspective of the individual as an end result rather than abstracting it away from that individual environment and presenting it from the researcher's point of view. While no pure form of representation is possible, this work aims to reduce the reshaping of the original information whenever possible.

2.10 Grounded Theory

A well known methodology for representing and categorising information from qualitative interviews is that of Grounded Theory (Glaser and Strauss 1968). Emergent generalisations are sought in the nomination of categories. Additional

information which is not judged to fit in with the emergent categories is discarded and theoretical saturation is said to have been reached when further information is judged to be replicating the earlier data. Certain elements, such as the categories in Grounded Theory and the Aspects in Dooyeweerd's Philosophy (1984), might be considered similar. However, it will be seen as this work progresses that these things are rather different, but the Suite of Aspects may be judged as providing a form of grounded theory, that is, producing data which provides emergent generalisations and a theory that is seen to meet the needs of the research focus and therefore the theory itself can be seen to be valid for the chosen purpose.

2.11 Conclusions

It can be seen from the review of literature regarding interviews that while much has been discussed about this topic the range of interview formats is usually limited to the traditional question and answer schema in one form or another. The researcher does not underestimate this traditional model nor does she discount the use of questions per se. However an aspectual format has potential in providing the following elements:

- a rather different interview experience which can be seen as allowing a greater degree of control for the respondent
- an environment of encouragement toward considering the importance of what the interviewee has to say rather than dictating what is seen to be important by the researcher.
- information of the interviewee is given true credence, in that the process avoids any kind of augmentation whenever possible.
- information is given by the interviewee and prescribed to an aspect by the interviewee. This is an attempt to avoid reshaping the opinions and stories related by individuals.
- Also, the aspectual format may be seen to provide a form of grounded theory which will be of use in qualitative interview and may provide additional use in the Grounded Theory of Glaser and Strauss (1968). This will be discussed at the end of the study.

This style of interviewing is seen by the researcher as akin to the humanistic approach in education which is reported in the adult learning section of this chapter. The consideration of literature in relation to adult learning shows the substantial range of the humanist approach to learning which is previously critiqued and noted as preferred by the researcher for its various attributes in comparison with the oppressive behaviourist styles. Many different theories and concepts of adult learning have been developed and research into who is attracted to adult learning and why is furthered by the work of those noted here and other researchers. Not all the literature can be represented as it is voluminous. These theorists have been specifically noted due to their relevance and connection to the research envisaged as they represent one or more of the following issues: human goals, understanding the meaning of what is being learnt, experiential learning and self-reflection. These theories differ greatly from behaviouristic theories promoted by proponents such as Skinner and Pavlov, and the psychoanalytic theories of Freud.

From a research standpoint this study particularly values the models promoted by the humanist tradition as they relate to the philosophical foundations of the researcher and are in contrast to the impersonal approach of behaviourists. Theorists in the humanist tradition such as Knowles, Carroll, Rogers, Kolb, and others generally agree on the importance of two specific factors in the education of adults. Firstly, that they are problem-centred rather than content-oriented, secondly, it is observed that the progress of adults is driven by their own self-directedness through reflection. These issues also relate to social interactionism, which provides that individuals build upon a foundation of knowledge toward an extended mental model increasing their understanding. The humanistic tradition follows a format of experience and individual choice while behaviourists concentrate on factors of physiological and psychological control. The researcher's interests lie in the humanist approach.

Learning of any kind is not usually a passive occurrence and even those who participate in active learning may need to be more deeply involved in the process. We would be limiting ourselves if we expected to only learn from experience.

Experience is a very important part of the equation especially in adult education but it is not the whole story. Continuous or lifelong learning is dependent on self-reflection and the assimilation of the cumulative affect of that reflection with the existing knowledge of the individual. Both theory and practice impact upon the way we learn as was previously highlighted in the reference to Carl Rogers theory which considers learning about engines (theory) in order to fix a car (practice). The link is therefore made between knowing and doing, that is, knowing the theory in order to carry out or do the practice. Self-reflection and critical thinking have been a strong theme throughout this chapter and the relevance of the aspectual interview format as a way to promote deeper and wider reflection is suggested and is a dominant theme in this research.

This chapter shows the relevance of the humanist tradition in education and society, and the importance of the individual perspective in adult learning. Therefore information which can be gained from mature adult learners in respect of their social and educational experience as a personal perspective of a range of issues is a focal point, and the way in which this information can be effectively collected is the specific research focus. As established in the introduction, this study is required because mature student involvement in information technology and information systems studies does not have the body of research papers which can be seen for mature students in other disciplines. Therefore this study will provide an element of work which appears to be deficient and will present a picture of mature students studying I.T. and I.S. It is hoped that this will be made use of for both mature adults considering entry to the study of I.T./I.S. and for those providing the facilities to do so. Also, the interview format made possible by the application of the Suite of Aspects framework will provide an alternative and/or a complementary method for other researchers wishing to progress along the path of least possible researcher dominance in the interpretive interview process.

Chapter Three

Approaches to Research

"For nearly any scientist whom we or history would label as 'great' agrees that it is quite mythical to think of the scientist as being 'objective'. ... the scientist is involved in making personal value judgements at nearly every stage of his work...The list of outstanding scientists in any field would show that these men and women were essentially great artists in the sense that they had the intuitive capacity to ask themselves the right questions in the right way at the right time". (Cantril in Payne 1951, p.vii)

3.1 Introduction

Having, in the previous chapters, introduced the overall research project and presented the reasons for the work and the specific areas of importance, it is at this point that ways in which this research can be approached must be assessed. Therefore, in this chapter, the researcher considers alternative methodologies and leads to the explanation of the eventual choice of methodology made for the furtherance of this project in the next chapter.

We all have concepts of ways in which things should be done and such concepts originate from our beliefs and our world view. In order to have a foundation upon which to build a process of thought it is necessary to recognise our own belief system. In the opinion of this researcher, which is derived from a critical/interpretivist view rather than positivist stance, each individual point of view is moulded in many respects by our deep rooted beliefs and social, political and other constructs. Philosophy has a place in this process, whether acknowledged by the individual or not.

Within this chapter elements of different philosophical standpoints and alternative paradigms are noted.

3.2 Philosophy

A short consideration of philosophy is provided because of the importance of previous concepts for all new research. Discourse, questioning and self-reflection

play a grand part in the history of philosophy. Due to this, any research which explores the practice of interviewing should acknowledge this legacy.

The importance of reason to early philosophers allowed the value of experience to be demoted. In 1955 the British philosopher-mathematician Alfred North Whitehead (associate of Bertrand Russell) commented that *"the history of philosophy is but a footnote to Plato"* (Wikipedia 2005). But we should also note Plato's friend, Socrates. These two celebrated men were rationalist and therefore upheld the importance of human reason. Socrates made note that the mind can be deceived by the senses and by unreasoned argument. He thought that men should constantly question themselves and reflect. Plato thought of the body as a chain that held us in a world of shadows from which the philosopher should seek to escape. Those that did not use reason were viewed as lesser individuals. This can be seen as promoting a hierarchy which still survives in our modern world. Professionals are often seen as greater in worth than blue collar workers, and a University qualification holds greater kudos than that of a qualification from a technical college. Much later this dualism was noted by the pragmatist John Dewey along with the point that while many early philosophers disagreed on a goodly number of things, they agreed on:

> *"...identifying experience with purely practical concerns...[but] knowledge, on the other hand, existed for its own sake free from practical reference"*.
> (Dewey 1999, p. 201)

Dewey was not of this opinion believing in the importance of both experience and theoretical knowledge. He is noted by Clouser as an instrumentalist because Dewey's view is dominated by the biological perspective, that is:

> *"For Dewey, human beings are to be viewed primarily as living organisms struggling for survival...For him "truths", are tools of biological survival"*.
> (Clouser 2001, p118)

However, it should be noted that Clouser is concerned ultimately with the acknowledgement of religious belief and therefore a stance of social construction or

human self-dependency is unlikely to find resonance with him. But the everyday world view presented by Dewey is not, in the opinion of this researcher, so out of kilter with an aspectual view, especially when considering the irreducibility of aspects. After all, Dewey's preoccupation with biological survival is a determinative aspect which must be met if we are to move beyond this and appreciate a philosophy founded on meaning such as Dooyeweerd's. From the view of the irreducibility of aspects it may be said that the biological aspects is as important to meaning as meaning is to the biological aspect. One does not reach completeness without the other, as can be said for all the aspects.

3.2.1 The danger of excluding experience from everyday life

René Descartes followed in the progression of Rationalists. He held to a belief in definite answers such as those produced by mathematics as did Spinoza who saw the laws in mathematics and geometry as the best hope for understanding humanity which does not allow much room for interpretative research, their caveat being that we must distance ourselves from feelings in order to be satisfied beings. When reason dominates to the exclusion of all else, consideration of any holistic interrelatedness may suffer, which is brought to our attention by Denzin and Lincoln:

> "The Cartesian ethos has separated mind from body, praxis from reflection, science from social action". (Denzin & Lincoln 2000, p.95)

3.2.2 The relevance of social conditions recognised in philosophy

However, Descartes and Spinoza's use of mathematics and geometry agreed that there are determinative laws of nature, and Spinoza also considered some social implications believing that while we can not deny the laws of nature (a lion can not choose to be vegan and an apple tree can not grow oranges), he recognised that the best conditions for growth promote freedom and that Man's development can be hampered by social and political conditions. So, our individual potential and external opportunities determine what we are and what we become. Man can not be totally free, we may compromise with external restrictions such as education but we are

wedded to our inner potential, therefore complete free will is unobtainable. There is an element here of critical theory which suggests that people can change but acknowledges that social and political factors constrain them.

3.2.3 The disadvantages of only recognising reason

Social concepts are important in this research as the mature students interact with a wide range of factors in their daily lives. British Empiricists such as John Locke suggested the importance of experience. He was interested in the roles of both men and women in society promoting that the suppression of women was a social concept and therefore was open to change. The Scottish Philosopher David Hume considered everyday life to be the relevant base for philosophy relating to the direct experience of Man in the world. He thought that Man was ever-changing through experience and perceptions which augment. Hume also, very interestingly suggests that it is not reason but sentiment which is the deciding factor in what we choose as right and wrong. He believed that we are compassionate in regard to others which should not be mistaken for reason. Hume famously stated:

> *"Tis not contrary to reason to prefer the destruction of the whole world to the scratching of my finger" (Stirling University 2005, Dept. of Philosophy).*

Rallying against this can often be seen in modern day politics when heartrending situations are made use of to gain sympathy and policy makers are faced with the difficult task of stripping away the emotional language in order to judge a situation on its merits and from a perspective of equality. But often a balance must be struck and Hume's suggestion that pure reason may produce heartless decisions has resonance in our modern world. In addition, Hume suggested that Man can only know the world as an individual experience which is different for all, and that we can not know what the world is itself.

3.2.4 The importance of both sense and reason

While this chapter can only provide a short summary of philosophy, even the most limited summary of philosophers who are potentially relevant to modern research

can hardly ignore Immanuel Kant. Kant thought that Rationalist reason and Empiricist senses were both necessary to answer philosophical questions about what we can know of the world. He suggested that while what we know of the world comes from our senses, Man's reason has factors that determine how we perceive things. Kant wanted to show what it is that can and cannot be known through reason. He sought to balance the importance of reason from the Rationalists Movement and observation from the Empiricist Movement. He did not want to limit his work to either one. Social scientists are bound to attempt this balance due to both elements being apparent in social situations and the perspectives of individuals. The use of both sense and reason is part of providing the rich picture which would always be desired.

3.2.5 Hegel's historical approach

Another philosopher of importance here is Hegel (Stanford Encyclopedia of Philosophy 2005). Previous philosophers sought to recognise how human beings could know about the world considering knowledge as timeless. But Hegel's approach countered this by stating that knowledge changes for each generation and therefore no universal truths exist. He maintained that the only useful stance for philosophy is to show its bearing in history. Our thoughts and decisions are tempered by external factors in society and therefore change with the generations. This means that any right or wrong can only be judged within its own historical context. To take a philosophical view out of its place in time and promote it as wrong would be an anti-historical viewpoint. He also stated that new information is furthered by each generation, making human reasoning a progressive faculty. He said that reason is apparent in language and relates to a period of time suggesting that we do not have freedom to override such things due to our dependency upon them.

3.2.6 Knowledge is structured by social norms

Finally, the researcher makes additional note here to the relevance of John Dewey's work. As a pragmatist he grounded his philosophy in relating theory and practice.

He believed in self-reflection, experience and the continued relationship between people and their environment, both the subject and object of any investigation were deemed important. He believed that actions were purposeful and so goal-oriented, because of this Dewey suggests that any process of knowledge building is structured by the individual's norms, values and interests.

> *"As John Dewey (1916) observed...individuals adopt the values and perspectives of their social groups...(they)...help determine what is deemed important and what is not, what is granted attention and what is ignored... "*.
> (Denzin & Lincoln 2000, p.287)

It is the researcher's opinion that this holds true in our modern day lives and in the research process.

3.3 The researcher's philosophical stance

Elements of the importance of everyday experiences and social environments can be seen in various parts of this section. The work of John Dewey makes note of education and emancipation. In addition it accepts the importance of both subject and object orientations as does the philosophical framework of Herman Dooyeweerd's Aspectual Suite which is presented in the following section. While Dooyeweerd noted the dualism in humanistic thought originating from the Greeks, philosophies such as Dewey's have much to say about the importance of and interacting with everyday life which is familiar with the significance of such things in Dooyeweerd's work. While Dooyeweerd's philosophy moves beyond the dualism of nature and grace, it should not be that all philosophies which are based on such a dualism are dismissed. While it could be said that the acceptance of Dooyeweerd's philosophy as a whole is dependent upon religious belief, this researcher suggests that parts of the philosophy have been provided as tools to assist the human mind, particularly the Theory of Aspects. The usefulness of the philosophy and the concern over a necessary "theistic belief" is highlighted by Basden's 2002 paper "The critical theory of Herman Dooyeweered":

> *"...does acceptance [of Dooyeweerd] depend on having a theistic belief? For complete acceptance of Dooyeweerd's whole framework the answer may*

be yes, but for usefulness...the answer is no, some commensurability is achieved via Dooyeweerd's immanent critique...As long as the pistic (religious) nature of presuppositions is laid bare, different frameworks of thinking can engage meaningfully with each other". (Basden 2002, p.268)

3.4 Research philosophies

Having addressed elements of philosophy and Dooyeweerd's Theory of Aspects, research philosophies are now considered.

A research philosophy encompasses beliefs about how information and data should be collected, analysed and presented. There is no one set of principles to carry out research which is accepted by all. Philosophical beliefs dictate our view of ontology, 'what is real' and epistemology, 'how we know what is real'. Positivism or scientific method is that of the objectivist stance while interpretivism (anti-positivist) is based on subjectivity. While it seems that a clear line can be drawn, that is not always the case. Methods utilised by interpretivist researchers can also be used to provide additional information within positivist research and qualitative methods which are often considered positivist, but are not exclusively so, may be included in interpretivist methodologies. However, the acceptance of research as valid depends upon the researcher producing outcomes that are judged by their own research community as acceptable and valid. Critical theory emphasises historical, cultural and social elements in attempting a social critique which credits the importance of everyday experience, it could therefore be suggested that it combines well with the use of aspects and the researcher's perspective. However, positivism, interprestivism and critical theory were all considered by the researcher along with critical hermeneutics and exploratory research in order to assess the usefulness of each in light of the requirements of this study and are recorded in the following sections.

3.4.1 Positivism – the difficulties of positivism

Positivism has a considerable history and that is true in I.T./I.S. as elsewhere. It is a dominant force in the publication of IS academic literature and professional studies, so too in the case in educational research. This type of research dictates the isolation of the phenomena under examination and the proof of repeatability in experiments

and observations. In this we must accept that our reality allows exact repetition. However, for this to be in any way close to possible, any examination must be of the most limited variable. This presents great restraints when considering social research which occurs outside the test tube in the midst of sometimes rather disorderly real world situations in our day to day lives, and there has been some discussion regarding the viability of positivist research in social science (Denzin & Lincoln 2000). In particular, Denzin and Lincoln present positivism as *"employing the language of objectivity, distance and control"*. (Denzin and Lincoln 2000, p.92).

3.4.1.1 What positivism dictates

Positivist research seeks general rules of learning that can guide intervention. The measurement of a phenomenon such as learning or information technology must allow the testing of a hypothesis from this point of view. Objectivity is the foundation of positivist research which promotes that reality exists apart from the individual, and can be known through investigation of patterns and variables. This presupposes that there is a reality apart from the individual which can be understood in isolation. Such objectivity is noted as a principle of positivism by Payne and Payne (2004), and is highlighted as that which sets it apart from critical and interpretivist research. Positivism is aligned most often with quantitative research methodologies which promote distance, complete control and the impartial, objective view. Denzin and Lincoln (2000) posit this type of research as a convenient way for people in positions of power who prefer not to be subjects of research scrutiny suggesting that there is a greater safety in numbers than in words. For many interaction with information technology and information systems on a daily basis is the norm. This suggests the social connections between education, society and I.T. relating to the view that information systems is a social science. Wood-Harper et al. (1996) also outline the social element when considering the potential of information technologies *"societal impacts"*. If the purist vision of computer science once kept society at arms' length, information technology was the fragment which conspired to ingratiate itself with society and in doing so became ubiquitous in that society.

3.4.1.2 Hypotheses testing presuppose disbelief

Information technology as a social norm is presupposed here. This research project is not a process of hypotheses tests, and as positivism requires hypotheses testing the researcher can not proceed in the positivist style of research. First and foremost, this is not a test of the aspects but an exploration of them. In order to test the aspects in hypothesis style it would be necessary not to believe in their ability as useful to this process in any way at all in order to be objective. The researcher suggests that it is not possible to consider the aspects as wholly useless in gaining information about everyday life, therefore positivist research can not be pursued in this instance. The following section considers the interpretivist approach.

3.4.2 Interpretivism

While this researcher does not prescribe to the strict objectivity often proposed by positivist research, she acknowledges the need for at least a proposed level of individual objectivity. This is not the strict 'test tube' nature previously noted. Instead it is an individual stance from where we attempt an independent view of the research situation. From an interpretivist/critical point of view this can not be objectivity in a pure form but, while objectivity is noted above as a strictly positivist theme, Kirk and Miller (1986, p.10-12) suggest that it has a place in qualitative research and therefore in many areas of interpretivist research. They note objectivity in terms of the natural sciences as a heuristic assumption that everything has causality. They then make note of it as intellectual risk which they relate to Popper's hypothetico-deductive method which they explain as testing theories via the deriving of hypotheses. Instead of considering objectivity as a narrow test-tube like view, Kirk and Miller see it rather more as a way of defining lines of perception about one specific. They explain this by suggesting that a man is viewed as *"a bundle of neuroses to the psychologist, a walking pharmacy to the biochemist and a bank account with desires to the economist"*; they also interestingly note that Einstein's Theory of Relativity was first called *"Theory of Invariance"*, due to everything displaying different aspects to various viewpoints but still *"some features remain the same"*. This is particularly worth noting as the researcher sees a link

here in the way that Dooyeweerd's Aspectual Suite (1984) is pluralistic in nature and provides for both the subject and object view, denying neither. This researcher has never felt comfortable with 'objectivity' as explained in the previous 'positivism' section. However, the view proposed by Kirk and Miller is much more akin to an aspectual approach and far more acceptable for the stance taken here. While the researcher is not expecting to express specific objectivity, particularly as this is exploratory research, it is valuable to recognise that objectivity need not be completely denounced when approaching qualitative work.

3.4.2.1 Assumptions of accepted world views

Interpretivism assumes that socially constructed world views exist and are therefore accepted. Interpretivism though not exclusively qualitative is allied most often with qualitative research methodologies. Interpretivism was a reaction to the strictly objective perspective of positivist science and the dominant style of quantitative measurement. Social scientists in particular saw the need for qualitative research in the humanities, education and other social situations. Consideration of phenomena in the natural environment is paramount to the interpretivist (as it is in critical theory) along with the acceptance that researchers affect everything they study simply by studying it, and this can occur in many ways. Interpretivists accept that reality has myriad perspectives and that each is a point of scientific knowledge. The interpretivist standpoint considers reality as accessible through social constructions such as language and other shared meanings. Interpretive studies provide meaning through the understanding of individuals. This subjective stance accepts that total objectivity is not possible.

Gubrium and Holstein (1997, p.6, 11) talk of the language of qualitative method as naturalism, *"Naturalism is the original and, arguably, the predominant language of qualitative research"*. In this, they state that the aim of qualitative research is to *"understand social reality on its own terms"*. That is, to provide "rich descriptions" of people as they naturally exist and interact. Additionally, they make note that: *"Concern for detail allows qualitative research to pay special attention to the*

'qualities' of experience, aspects of life that quantitative approaches typically gloss over".

3.4.2.2 Elements of interpretation in this work

As this research is an exploration of adult learners and the relevance of I.T., it hinges on the interpretation of human experience. Therefore the researcher is aware of the imperative of an ontological and epistemological methodology which will allow the interpretation of qualitative human values. Klein and Myers (1999) promote that research is interpretive if we assume our knowledge of reality is arrived at through social construction and that we base understandings via the meanings assigned to them by individuals.

3.4.2.3 Interpretivism has different elements relevant here

Information Technology/Information Systems and Educational Research have an early tradition of positivist studies. Although positivism was the originally acceptable form of research, social sciences in particular have been instrumental in the integration of interpretivistic work in order to study human factors and issues of social construction. Both traditions have their advocates and opponents. The qualitative researcher does not have the clearly marked pathway which goes along with positivist science. They must make use of many varied practices in order to attempt the portrayal of as rich a picture as is possible: Because such a variety of different techniques are practiced, and many different roles may also be played, terms such as bricoleur (bricklayer) and quilt maker have been applied to the interpretivist researcher. Therefore it is not out of the ordinary to make use of various elements of research practice in an interpretivist study. The researcher believes that along with an interpretivist view, critical theory is relevant to this study and so considers this area next.

3.5 Critical Theory

While interpretivism accepts socially constructed world views, criticalism goes further by suggesting that these world views are defined and dictated by those in

positions of power, and that we should all seek emancipation from such social boundaries.

3.5.1 Critical Theory has many different elements

Critical theory is not a set of specifically defined attributes and it is noted by Denzin and Lincoln (2000) that critical theorists do not strive towards a rigid framework. To set out a strict procedural process appears to go against the grain in critical theory as an ever-changing world can not be seen to fit into a repeatable plan. Emancipation and the realisation that presuppositions exist in all research is also part of the critical theory approach (Avgerou 2000). Lincoln and Guba (Denzin & Lincoln 2000) note the existence of *"multiple critical theories"* suggesting a common ontology and epistemology. Critical research posits that history is repeated by people and while they can make changes the social and economic environment of the time will limit their possibilities. Culture and politics are also recognised as curtailing freedom to act. Critical researchers evaluate social conditions which are viewed as limiting and constraining. This is pursued in an attempt to be emancipatory. Such philosophical undertones can be seen in relation to education in the work of Paulo Freire. He suggests that teachers as leaders and students as followers must interact to know reality in a critical sense, they should share in reflections thereby each being liberated from any pretence of participation toward real involvement, thus providing emancipatory value for both (Freire 1996).

3.5.2 Critical Theory as useful to this study

This researcher sees critical theory as relevant to this study in particular because of its emancipatory aspirations. Education for the mature student can be a new lease of life which is often returned to after a major occurrence (such as divorce), for others it is 'their time', a point at which children have grown up or gone to school. What many of the mature students share is a feeling that they missed out earlier in life or were not confident enough in the past to follow their aspirations for a better education. Emancipation in its individual form means different things to different people. But as a concept based in freedom it is an instinctual motivator for all.

However, social construction and critical theory suggest that total emancipation is not possible because of socio-political confines. That is not to say that emancipation should not be aspired to. Growing self-confidence is apparent in mature students and the satisfaction they feel at being back in a learning situation is evident and reminiscent of emancipation. But, this individual feeling of empowerment is something which is not restricted to the learning situation as it influences all areas of the students' everyday lives.

3.6   Grounded Theory

Previously in this work, the importance of emergent generalisations from the data and the theory being seen to confirm the research focus has been noted. Therefore, Grounded Theory as reported by Glaser and Strauss (1968) should be noted for its influence. The researcher has already commented that the aspects may show themselves to be of use in Grounded Theory and this will be addressed in the Discussion – chapter 9. Grounded Theory is a structure of comparison and one reason why it will not be utilised in this study. However, the parity between Grounded Theory and the possible utilisation of Aspects as an intuitive approach is not lost on the researcher. In addition, the hermeneutic process of what is noted as categorisation and coding is also relevant in this study. There are no prescribed rules on how to gather data in Grounded Theory, but its authors do make a point that data should not be 'forced'. Grounded Theory was proposed as an antidote to the dominant forces in social science which placed theory-verification as of paramount importance. Even exploratory research requires some form of categorisation in order to allow a level of analysis. However, the interest in Grounded Theory here is much more aligned with what the Aspects can do for it, rather than what it may do for the Aspects.

3.7   Action Research

Action Research has two imperatives of practice and theory, they are said to go hand in hand. The first relates to the degree of involvement by the researcher in effecting change and the second to the finding of new knowledge through the implementation

of a theoretical framework. Action research social enquiries should generate knowledge and meet the particular purpose of action research which is to be seen to influence social change as an outcome of the research. That is, make a marked difference to the situation which is encountered through the research project.

As suggested in the work of (Mumford 2001), the level of researcher involvement must be stated and it should be noted that the researcher and those being observed within the action research process are reliant on each other for information and co-operation. Action research may be used to test a theory in practice or the reverse may be utilised by studying practice to identify aspects of theory.

However, as this research is exploratory rather than deductive, the terms of action research could not be met via this project. That is, an exploration of experiences and the interview framework which accesses these experiences in the form of information are the premise of this work. The purpose here is to explore what already exists rather than seeking to intentionally change it at this time. Therefore, this can not be considered an action research project.

3.8 Participant Observer

Ethnographers involved in long-term projects often describe themselves as participant observers. That is, they consider that they can integrate with a group over a period of time, sometimes living with them, but not become personally involved or 'go native' as it has been described. Such researchers believe that their subjectivity is kept intact.

It was noted in the Introduction chapter that at the beginning of this project the researcher was considering observations as a method for this research. It was possible for the researcher to spend twelve weeks assessing how useful this type of data-collection would be by observing a group of mature student co-workers in a team project. The researcher assisted the students when asked to and engaged in conversation with each of the mature students. While it was a useful experience to

interact with the mature students at this level, it most of all showed the researcher that this would not be a desirable way to collect the necessary information as, while some conversations can be recalled and noted later, much detail is lost, particularly when there is a group conversation and a variety of crossover topics being spoken about. Therefore, this type of observation was not pursued further.

3.9   Exploratory Research

Stebbins (2001) outlines the differences in exploration and confirmation research by stating that these two major approaches are similar, however the goals of exploratory research are to produce new ideas via a grounded approach. In contrast the confirmation research hinges on the testing of hypotheses.

In particular, Stebbins suggests that generalisations leading to an insightful understanding of the group is what the exploratory researcher strives to gain. That is certainly the case here, as insight into the mature student experience and how to collect data from this group is sought. Exploratory research is not for hypotheses testing, it expresses hypotheses that must later be verified. Exploratory research generates hypotheses which can not be confirmed using the same information and process (Glaser & Strauss 1968).

However, it is also suggested that it is unlikely that the generalisations will be falsified at a later date because of the "grounded validity" of the data collected through exploratory research. In addition to this validity is said to be of a different type in exploratory research than in that of confirmation research. Validity in the exploration process relates to the data itself and the portrayal of accurate impressions and emergent generalisations, and theory is noted as the primary goal of exploratory research (Stebbins 2001).

3.9.1 The importance of emergent generalisations

Here the interview technique utilised in order to gain information about mature students studying I.T. will be explored as will the data which comes about as a result

of using the interview technique. The design, development and utilisation of the technique along with the exploration of the data gathered are a cyclical, hermeneutic process in a larger constant comparative hermeneutic process which encompasses the whole research project.

Situating and placing in context what has been noted here about exploratory research, this researcher presents a two-way process of valid data due to its grounded status and outlining an understanding of how a theory facilitates the collection of wide-ranging information in an understated and non-dominant fashion. Therefore, the Theory of Aspects will be assessed for its usefulness in gathering a wide range of data as the main goal of exploratory research and the critical hermeneutic process of analysing the data through what emerge as generalisation, the importance of these and other factors as a process of interpretation will be provided as it was presented by the interviewees, in so much as that is possible. While it must be stated that any interpretation is just that, the researcher is hopeful that the aspects will have provided a format that allows a strong degree of authenticity to be held within the data due to both the information and aspectual positioning of information being provided by each individual. Interpretations drawn from this by the researcher as must occur in the hermeneutic analysis will be explicitly noted as such.

3.9.2 Interviews and Exploration

As previously noted, when considering the overall approach to collecting data for this research an opportunity arose for the researcher to observe and interact with mature students in a casual and social way. This occurred by being engaged in an I.T./I.S. teamwork project over one academic year. The mature students were observed in this learning environment. In order to record the degree of researcher participation a research diary was maintained throughout the observational process. However the two most important observations were the recognition that an individual interview process would be more likely to provide the information which would be useful to the research, and the realisation that the wide range of issues discussed by these students would be very difficult to encapsulate in a list of

questions. The researcher did not wish to dictate questions which may well reduce the content of what is important to the students and wanted to find a guiding interview format to allow the respondents to discuss what is important from their own perspective. Through experiencing casual discussions with the students it was apparent to the researcher that no amount of second-guessing the content of questions would have provided for all the elements which arose through this discourse. The exploratory nature of considering human experience and potentialities pointed the way toward using wide-ranging interviews for this research area.

3.10 The approach – Aspects, exploration and Critical Theory.

The initial and most engaging attribute of the Aspectual Suite is that of its obvious applicability to everyday life. While this researcher believes in the Reason of Man she could not accept the strictly Rationalist view of pure reason being the single defining factor in the research process. In accepting natural/physical laws this researcher can respect Dooyeweerd's explanation that we can go against such laws but we will suffer the consequences. Dooyeweerd allows both sense and reason to be explored multi-aspectually. Social situations such as education provide factors of success and failure in myriad elements. The Suite of Aspects provides a format which allows a range of subjects to be commented upon and therefore is potentially an effective structure on which to base the process of wide-ranging interviews; it is therefore an alternative which is worthy of exploration.

3.10.1 Why this is exploratory work

The researcher's reasons for being interested in the area of mature student education in information technology originate from personal experience of being a mature student enrolled on an I.T. degree course. This form of motivation from a *'central life interest'* is noted by Stebbins in the sense of exploratory research:

> *"How does a person become committed to a research problem that is best studied through exploration? ... would-be explorers embark on a research career that enables them to delve into one or more of their own central life*

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interests. ...Many a social scientist has, in fact, followed the irresistible call to research given off by a central life interest. The result has been a social science enriched over the years with knowledge..." (Stebbins 2001, p.55)

3.10.2 A blend of paradigms

Along with the application of the Suite of Aspects and an exploratory style is the need for a definition of the methodological stance taken here. While the researcher began considering this project from an interpretivist stance, the importance of emancipatory factors considered from a relativist point of view became ever more meaningful.

There are social and political confines within the adult education system, just as there are elsewhere and just as in other areas of life the system is not value-free. While no perfect framework exists for any research project (Denzin & Lincoln 2000), the importance of meaning in everyday life and barriers which restrict our aspirations and potential should be recognised. Therefore a critical approach will allow the relationship of people and their environment to surface through the Suite of Aspects implemented in the interview situation. The emancipatory element of critical theory connects with the importance of meaning in everyday life and inhabits the Theory of Aspects. Elements of social constructivism have previously been noted alongside the critical approach for this work. Constructivism is said to be value-free, while relativism and critical theory are value-laden. However, Denzin and Lincoln (1994) suggest a shared methodological base as dialectical, thus giving the possibility of a level of commensurability between the paradigms. The possible blending of these two paradigms is noted again in their later work:

> *"Are paradigms commensurable? The answer...is a cautious yes...especially if models share axiomatic elements that are similar...elements of ...critical theory, constructivist and participative inquiry fit comfortably together...[Problems occur] among the axioms of positivist and interpretivist models, because the axioms are contradictory and mutually exclusive". (Denzin & Lincoln 2000, p. 174)*

3.10.3 Critical distance without disbelief.

While positivism forces the testing of hypotheses and therefore would dictate the suspension of belief in the Suite of Aspects, criticalism allows the researcher to maintain a critical distance from the framework without necessitating disbelief and therefore provides a balanced approach of accepting world views while suggesting they should be challenged for reasons of emancipation and providing critical distance without dictating disbelief in the framework utilised for the data collection.

3.11 Conclusion

Reflecting upon at least some of the philosophical works of the past, the researcher can see connections to her own interests and patterns of thinking. Dooyeweerd's Philosophy draws attention to 'meaning' placing this philosophy solidly in our everyday world and showing a way in which we can explore any subject from a multi-aspectual approach rather than a limited view of simply one or two points of reference. Previous philosophers have avoided demoting our world by not giving their minds over totally to other-worldliness. Socrates famously suggested that the trees in the fields could teach him nothing, giving humanity great importance. Hegel suggested that those who remove themselves from society are ridiculous. In showing the importance of society many philosophers promote the necessity of understanding humanity and the world in which we reside. But particularly relevant in this research is to show the importance of such factors but further show how we can both practically and reasonably question our world. Instead of forcing a dualism between night and day or good and bad the Aspects provide the potential for understanding the complex coherence which makes day part of night, good part of bad and reflects the hermeneutic dependency of the whole being greater than the sum of the parts. It is for these reasons that the Suite of Aspects is specifically chosen to guide the interview process which is vital to this work and as such will be analysed for its contribution to this research. The following diagrams provide an overall macro view of the research project and the stages of development and implementation of the interview process. The Macro view of the project from the beginning of the

exploration to the consideration of the interview model and the data is presented in the following diagram.

Figure 3.1 Cycle of the Research Project

THE CYCLE OF THE RESEARCH PROJECT – OVERALL MACRO VIEW.

1. Exploration of mature students in I.T.

3. How the information was found - (Analysis of the interview framework)

4. What information the exploration found – (Analysis of interview data)

2. How to find out about mature students in I.T.?
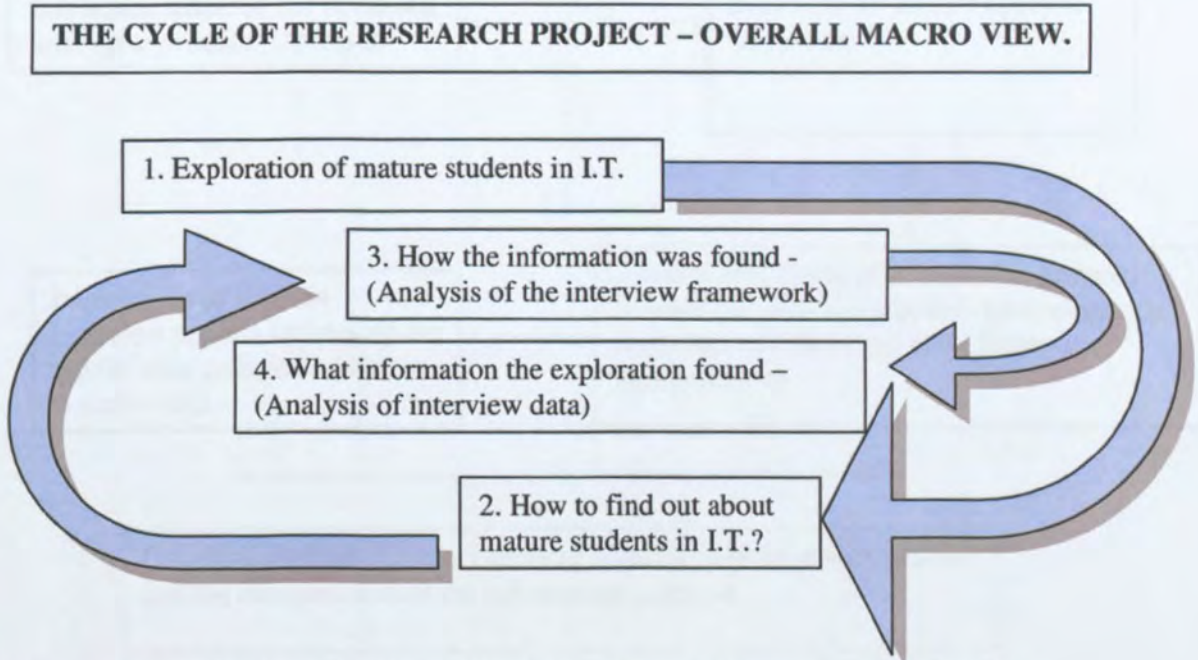
The stages of interview development and implementation are presented in the following diagrams:

Figure 3.2 1st Stage of Interview Development and Implementation.

1ST STAGE- INTERVIEW DEVELOPMENT AND IMPLEMENTATION

Pilot interviews and review of implementation.

Development of the interview technique

Group 1 interviews and review of implementation

Group 2 – problems which arose.

Review of implementation (Group 2)
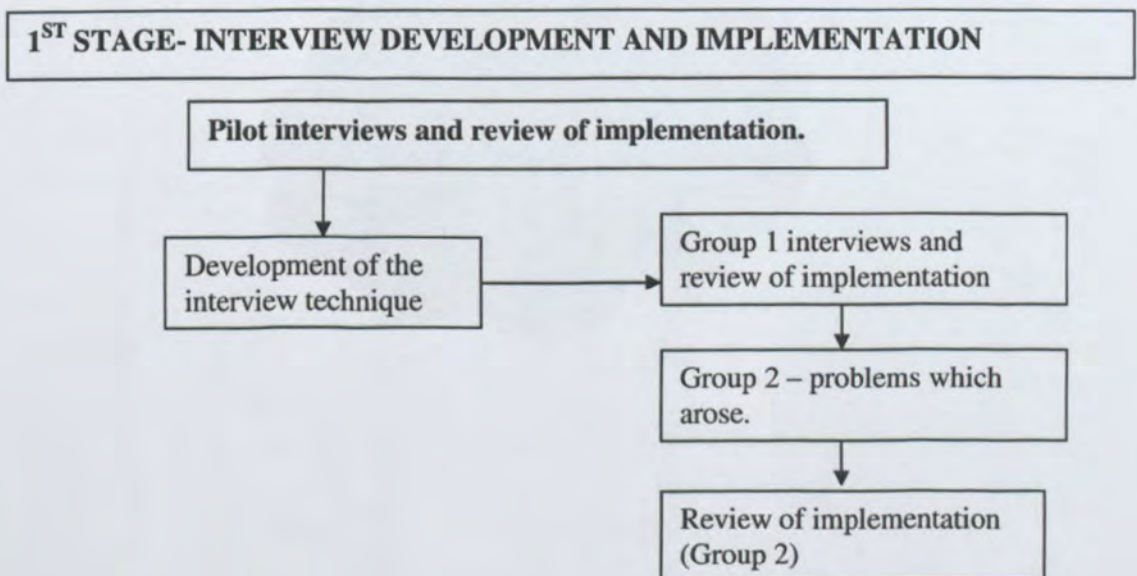
Figure 3.3 2nd Stage of Interview Development and Implementation.

2ND STAGE OF INTERVIEW DEVELOPMENT AND IMPLEMENTATION

Implementation of the reviewed interview process (Group 2)

Data from 1st and 2nd cycle of interviews

Exploration of how the interview process influenced the type of data gathered - (what it is and is not).

Assessment of type of information gathered (critical hermeneutic process –generalisations, importance of these and other factors, interpretation).

Conclusions regarding the Theory of Aspects as an interview process and the interpretation of the information gathered.

Further Research

Chapter Four

Methodology for this Study

"There is nothing so practical as a good theory" (Lewin 1951, p.169).

4.1 Introduction

I.T. is a subject that serves many disciplines and as subject can be viewed as an appendage to other subjects such as management or administration; this can be both a strength and a weakness. Even those who dislike the thought of studying the subject at any level have to agree that information technology is a necessary skill which can not be done without if the individual is to interact and communicate on all available levels as an employee, a citizen, a consumer etc. Those who did not previously study I.T. and only came to it by way of work, often do so for reasons of communication. There is a link here between I.T. and modern humanities and the link is the need to communicate, whether the communication is for social purposes or work. Therefore a methodology particular to studying mature students studying I.T. is needed here as their position in society and their choice of discipline make them worthy of study.

4.2 Methodology for this study

A methodology comprises the philosophical stance of the researcher (which in this case is interpretivist/critical), how the information is conceptualised (interpretive social study), and the methods utilised (casual conversations and aspectual interviews). The interview method and the data which emerges from it are both under assessment in this study.

In order to consider the intricacies of mature students studying I.T. it was necessary to acquire a commentary on the subject and who better to provide this than those who are experiencing the process. However, in collecting the information the question of an appropriate way of how to gather the information had to be answered.

In speaking to other researchers and reading published works, the researcher considered the general way in which subjects were interviewed. It became apparent that questions were established in relation to what each researcher saw as relevant and important to the research project, which is only to be expected. The researcher found it difficult to acquire explanations of how or why particular questions were deemed important or why they were expected to initiate informative responses.

This researcher had concerns about dictating a list of questions which may encourage obvious or simplistic answers and gave some considerable thought to a plan which would allow interviewees as much independent interaction as possible. This chapter presents the methodological approach which supported this research project.

The research is implemented in society and therefore influences it as in turn the social actors influence the research. Distinguishing research influence from the subjects' natural actions can be difficult to appreciate. This explains a major difficulty that this research has struggled with throughout this research project. The two elements of gathering data about mature students studying I.T. and finding a method which is particularly appropriate to do so, has produced much angst. Still, the researcher must say that these two elements vie for attention and though the method is noted as that of overriding importance, the stories and experiences are a very close second. It is the nature of this subject that in using a particular model to gather information, the information providers become a big part of the story. Due to this it is necessary to accept a dual role for the researcher to position her interactions as both researcher and interviewer in the form of two separate persons, but acknowledge that while a neat split between social science and society is not possible, the same must be said for the positing of Person 1 (P1) – the interviewer and Person 2 (P2) – the researcher. However, they do carry out separate roles, from different perspectives which provide two types of findings, that is, P1 and P2 findings.

Within the P1 cycle the Suite of Aspects is given by the interviewer to the interviewees to make use of, while the P2 cycle sees the researcher exploring the Suite of Aspects as a research object.

Figure 4.1 Dual Role of Interviewer/Reseacher

P2 – PhD researcher exploring a research method. P2 is distant from the P1 process.

Reflection on the interview framework.

P2

P1 – Interviewer collecting data. P1 is emerged in the interview

P1

Reflection - considering categories/emergent generalisations in reflection of the data and memory of the interview process.

Collection of data from interviewees
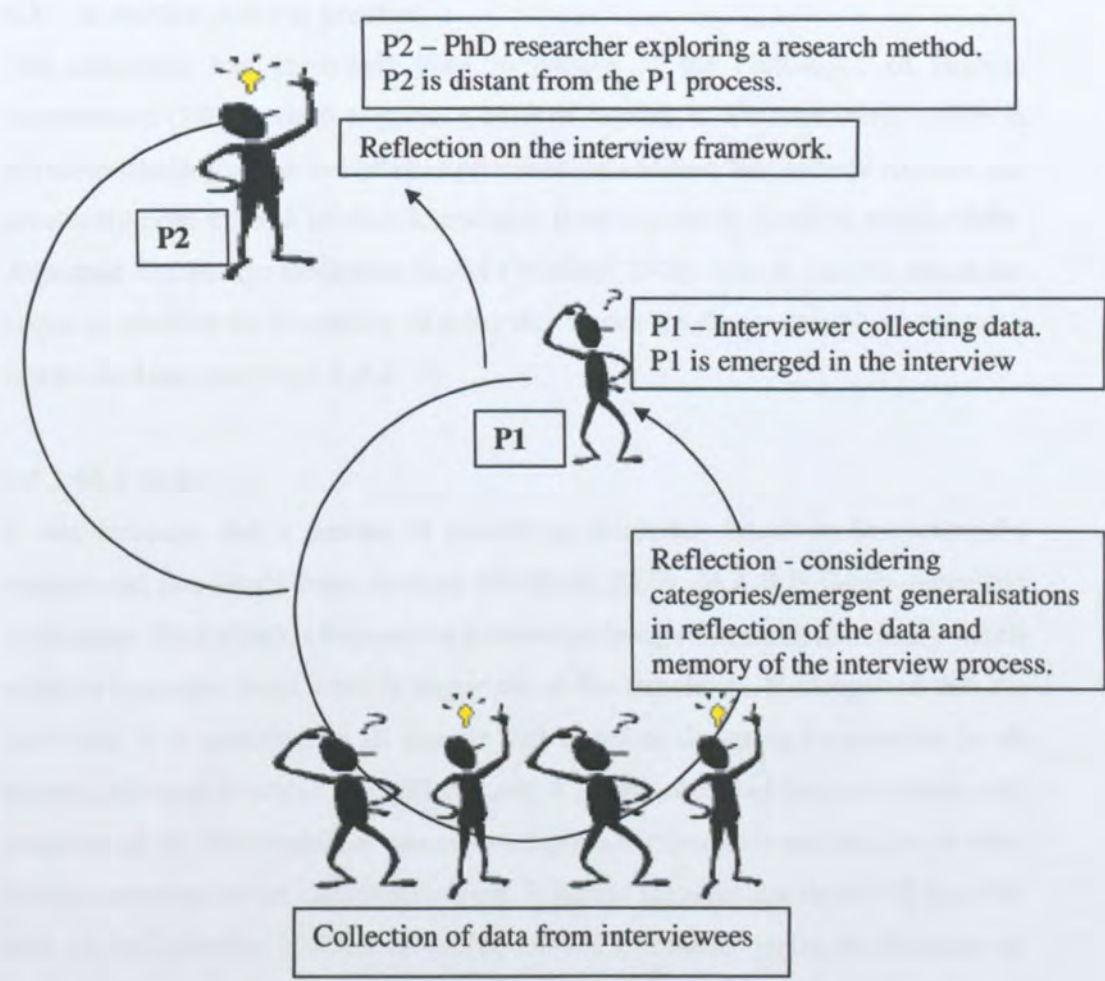
The P1 and P2 activities could be carried out separately and provide two different types of exploration. Individually, the P1 interviews would provide an everyday social study of the type often performed for market research. However, the addition of the P2 process involves a relationship to academic research. Alone, the P1 process could be viewed simply as a study, whereas the P2 process as an exploration of the method interlaces with the study to provide a basis for academic research.

This interdependency of research and practice is grounding the exploration of a research method firmly in the practice of gathering data in a dynamic social environment. It can only be speculated exactly how and when each interaction influences either part.

4.3 A starting point in practice

The researcher had previously been introduced to the Philosophy of Herman Dooyeweerd (1984), which suggests a Suite of Aspects as a format which assists in the understanding of our everyday experiences. In addition, the Suite of Aspects had previously been utilised to elicit knowledge from experts in the form of the Multi-Aspectual Knowledge Elicitation model (Winfield 2000). Due to this the researcher began to consider the possibility of using this format for the process of interviewing mature students studying I.T./I.S.

4.3.1 M.A.K.E.

It was fortunate that a process of knowledge elicitation based on Dooyeweerd's aspects had previously been devised (Winfield 2000). M.A.K.E (Multi-Aspectual Knowledge Elicitation) is founded on knowledge being recognised as a theory which contains concepts about what is important to the individual. It recognises that the individual is functioning in all aspects and therefore declaring information in all aspects, although much of this will be tacit. It is also observed that individuals will be aware of the relationship of one or two aspects because they are inherent in what is most important to the individual's work. Winfield suggests that these will be at the core of the individual's orientation. The M.A.K.E method begins by focusing on these core aspects, the Suite of Aspects is then utilised, which allows the focus of investigation to be widened.

4.3.2 Advice from the maker of M.A.K.E

Early in the research a meeting was arranged between the researcher and Mike Winfield who created the M.A.K.E model. He provided a demonstration of the way

in which he utilised the model for his earlier research and how the seven-step M.A.K.E algorithm was employed.

The MAKE algorithm:
1. Start with the statement of requirements.
2. Apply the aspectual template to the statement of requirements and identify the important aspects.
3. Isolate one of the aspects identified in (2) and specify any laws, axioms, data.
4. Identify as many concepts as possible, which lie in this aspect.
5. Apply low level abstraction to expand on each concept which needs, (is thought to need), exploring.
6. Repeat steps 3-6 as necessary.
7. Use the aspectual template to identify any new aspects, which may apply to the concepts already specified.

(Winfield 2000, p 142)

This meeting was an opportunity to discuss the previous work carried out by Winfield and consider the usefulness of employing the technique for mature students of I.T./I.S.

The researcher had previously considered the M.A.K.E algorithm and expected it to be useful in eliciting knowledge from individuals because of the wide-ranging format of the aspectual foundation and because it shares some of the basic principles noted in interview practice. In line with Winfield's statement of requirements, Goodale suggests:

> *"It is helpful to summarize the purpose of the interview and to set an agenda. Then move into the body of the interview by asking a general, open-ended question".* (Goodale 1982, p.11)

During the discussion with Mike Winfield the researcher began to realise that the M.A.K.E process provides an environment which promotes people toward self-

reflection, that is, uncovering their own thoughts and links between those thoughts through the Aspects. The researcher expected that the process would run in a fairly sequential manner. However from discussing this it became obvious that there is much greater potential for iteration due to highlighting an aspect and asking for relationships. The process begins with one question that may relate to one or all the aspects. It may also be pertinent to ask about aspects which are never made note of in the interview.

Winfield advised a format for the researcher based on his experience of utilising M.A.K.E:

1. Explain the aspects in 10 minutes, keep it simple (keywords) and provide a list as a visual reminder.

2. Identify an aspect that interviewees will be happy to start in.

3. Ask for a concept relevant to those aspects.

4. Draw an illustration (map) of the linked aspects and concepts in front of the interviewee.

5. Ask the interviewee to justify any none-use of aspects.

6. Reflect on what they have done at the end of the interview (are they happy with it?).

7. Ask them if they want to change anything.

In addition to the suggested format it was also advised that the interview not be longer than a one hour process as interviewees become tired or bored beyond this point. From the discussion which took place the researcher began to see the potential in applying aspects as a structure useful to the design of research interviews. While previous research (Winfield 2000) has shown the aspects to be useful when interviewing experts who easily provide links and concepts within the Multi-Aspectual Knowledge Elicitation process, this research has the possibility to show the adaptability of the aspectual format and its usefulness when guiding interview design for those interviewees who may or may not readily relate to research frameworks, concepts and relationships. Another important difference is

that M.A.K.E was used to collect information regarding actualities (expert knowledge), while this research seeks to find potentialities (what is important to mature students).

4.3.3 A second meeting

Part way through the first group of interviews after the pilot interviews another meeting was arranged with Mike Winfield. The researcher had questions regarding the mapping process as although the university students were providing concepts and relationships they were in a sequential order as represented in the conversation which did not appear to be the case in Winfield's study. On speaking about this issue, Winfield suggested that M.A.K.E allows for two types of tacit knowledge.

1. Re-awareness of forgotten knowledge (shallow).
2. Realising new knowledge (links/concepts) that were never known (deep).

Winfield related the links and concepts as more akin to professionals furthering a consideration of what they already know rather than individuals assessing what they want or 'crystal ball gazing'. This possible difference in the perceptions of the university student interviewees when compared with interviewing professionals became even further compounded when the researcher began the interviews at the Further Education college, (as recorded in The Study, chapter 5).

4.3.4 Researcher's concerns about M.A.K.E.

In considering the application of M.A.K.E for the interview process it was necessary for the researcher to think about elements of the model which may not correspond with the researcher's own thoughts. When reflecting on this the researcher was able to define some areas that may give rise to concern. Firstly is use of the researcher's inference in defining relationships. In this way the researcher's perception may be highlighted rather than the interviewee's perception. This researcher believes that the self-reflections from the interviewee assisted by the researcher should be the aim, but does not wish the interviewee to be diverted from their own thoughts in

favour of the researcher's. Secondly, is the issue of whether it is more important for the information to be in the 'right' aspect (that is, in agreement with the researcher), or whether the interviewee places the information in line with their tacit understanding? With these issues in mind the researcher considered the Suite of Aspects as provided by Dooyeweerd in order to define the usefulness and applicability of the Suite of Aspects for this research.

4.4   Herman Dooyeweerd's Suite of Aspects

Some time ago the researcher was made aware of the philosophy of the late Herman Dooyeweerd (1984), and in particular the Suite of Aspects. The researcher considers the Suite of Aspects as a useful and expansive tool which will offer insight into the thoughts and reflections of interview subjects. Herman Dooyeweerd's philosophy as a whole is complex as is philosophy per se. But there are specific parts to the philosophy such as the Theory of Aspects which are particularly useful and practical when considering everyday life and recognising its importance as is noted by Holmes (1971) who reminds us that Dooyeweerd posits life as prior to learning, this meaning that everyday life provides presuppositions that will shape how we view our experiences and inform any theoretical work. Such an honest and practical understanding is one reason why this researcher is drawn to using Dooyeweerd's theory of aspects. As a theory it is inherently practical and this researcher instinctively agrees with practicality as good practice.

4.4.1 Aspects recognised in everyday life

The general way in which we use our own individual idea of aspects is an everyday process of categorising information to make it more manageable. Dooyeweerd's aspects can be seen to be useful in the same general sense as they allow for both quantitative and qualitative recognition as we experience it in everyday life. For example, as human beings we purchase goods and services with two constants in mind, the cost (quantitative) and the quality (qualitative). We also allow quality to be presented as numbers perhaps on a scale of one to ten, and allow quantity to hold a meaning of quality 'less is more'. These are factors in our everyday human life;

while many theories and frameworks dictate a positivist or interpretive approach which can not be strictly adhered to Dooyeweerd allows diversity which is particularly useful in multi-disciplinary subjects such as information systems. Dooyeweerd's work stands in opposition to the reductionist world view of relativism. This should be a liberating structure which allows such subjects as information systems and information systems education to be viewed from myriad perspectives. Dooyeweerd, now deceased, was Dutch. His work is provided mainly in his native language and only in part through translation to English. In addition to this Dooyeweerd's work is very different as it reaches back to the roots of Western thought and re-evaluates some deep-rooted established principles. The Greeks held a belief in form and matter that is what is solid and known and that which is spirit and concept, while the Hebrew view was creation, fall, redemption. Both these sets of accepted principles went through a time of change within the nature and grace structure which separated humanity from the divine. Later the process known as nature and freedom occurred, which proposed the control of nature and freedom of the individual human. The very beginning of Dooyeweerd's philosophy relates back to the creation, fall, redemption belief and therefore provides a different foundation on which to stand in order that we may consider all manner of things. The aspectual suite is a product of this foundation but our appreciation of this practical and useful framework need not be reliant on our understanding the full potential of a complete philosophy. The practical nature of the aspects makes it a worthy method of investigation which does not dictate a strictly qualitative or quantitative doctrine but allows pluralism to demonstrate a realistic relationship between society, technology and theoretical frameworks.

4.5   Aspects as a form of perspective

The human mind is analytical and therefore creates distinctions which are coloured by social and other elements. Therefore what is considerable wealth by one person may be assessed as a low income by another individual. In addition to this whether being well off is assessed only in economic terms or by enrichment in family life and association with friends etc is highly individual. So, my first point would be that

a framework that is accepted as reliable simply because the quantitative element is represented as one to ten does not relate a complete meaning of one, ten or any other numerical reference. Even 'more than' and 'less than' are completely subjective. Our positivist assumptions engage us in a constant search for proof. Due to this instinct we give status to frameworks which allow imaginary absolutes, while in parallel our analytical minds progress further disproving all hypotheses in the fullness of time. In the endeavour to allow a measurement of understanding within the aspects it must be pointed out that there is an irreducibility of aspects. This means that the essence of each aspect is that which is most important to the subject or object under consideration, that which it can not be removed from and while all other aspects will have relevance the qualifying function is that which can not be denied, the base, the foundation of which holds all the other building bricks which feed our understanding of an individual thing. If a book was simply a hundred pieces of paper it would qualify as physical due to its existence as mass. However, what makes a book is its lingual qualification or the words. Therefore when is a book not a book? That would be when it no longer qualifies as a lingual instrument. So what about a book of pictures? The lingual aspect is not just a qualification of syntax but also symbolic meaning. This allows for the old adage that a picture paints a thousand words. As human beings we function in every aspect unlike animals which function up to and including the sensitive aspect. As living things we share the biotic qualifying function for without life functions we do not exist in this world as living beings. All else is built on this foundation: we have feelings (sensitive aspect), we use our minds (analytical aspect), we form tools and achieve aims (cultural aspect), we make use of language (lingual aspect), we engage in relationships (social aspect) we make use of resources (economic aspect), we attempt to balance our lives (aesthetic aspect), we allow what is or is not due to other individuals (juridical aspect), we give of ourselves (ethical aspect) and we have vision and invest in commitment (pistic aspect). But none of these may be achieved as a human being in the natural world without first being qualified as a living body (biotic aspect). While the aspects do not indulge in restrictive and imaginary numeric scales they allow a

full and fruitful investigation from the essence or qualification of a thing to the prominence of vision and commitment.

4.5.1 Pluralism and the Aspects

The work of Herman Dooyeweerd allows for elements of positivist, interpretivist and critical elements as human beings experience them in everyday life. It accepts the existence of an objective and subjective view rather than denying one or the other. The importance of this is also noted in the work of Paulo Freire:

> "...one cannot conceive of objectivity without subjectivity. Neither can exist without the other, nor can they be dichotomized. The separation of objectivity from subjectivity, the denial of the latter when analysing reality or acting upon it, is objectivism. On the other hand, the denial of objectivity in analysis or action, resulting in subjectivism which leads to solipsistic positions, denies action itself by denying objective reality. Neither objectivism nor subjectivism, nor yet psychologism is propounded here, but rather subjectivity and objectivity in constant dialectical relationship". (Freire 1996, p. 32)

4.6   The Aspects as useful for interviews

Herman Dooyeweerd provides a framework which allows the expression of meaning through a possible fifteen aspects (The Suite of Aspects). The recorded perceptions of the subjects involved in this study may be similar and repetitious; however they may be highly individual and cover a broad range. In order to evaluate such responses the framework must allow the integration of a breadth of issues rather than restrict detail to a limited range. Often when individuals highlight specific issues they do not consider the depth of meaning. The philosophical approach proposed by the late Herman Dooyeweerd (1984) shows promise here. It is a philosophy that is oriented towards meaning. Specifically it addresses the issues of both diversity and coherence. It has recently attracted interest in interdisciplinary areas of human activity, and a useful outline of this can be found as applied to information systems design in Basden's 2002 paper "A philosophical underpinning for I.S. Development".

4.6.1 How this is different to the question/answer interview format

The aspectual suite does not answer any specific questions. However, using the suite provides focus and highlights relevant areas for investigation and possible questions to be answered. In the process of exploration it can be implemented as a form of directional tool which shows various ways forward and therefore particularly applicable to the process of interviews.

Figure 4.2 Aspects and Keywords

Aspect	Typical Activity	Kernel Meaning
Numerical	Calculations	Quantity, numbers
Spatial	Space required	Continuous extension
Kinematic	Predictable movements	Motion
Physical	Properties	Energy
Biotic	Breathing, circulation	Vitality
Sensitive	Emotional reaction	Feelings
Analytic	Distinction, critical thought	Distinction
Historical	Deliberate Goals, Achieving, Culture	Formative power
Lingual	Development of symbols/language	Symbolic meaning
Social	Relationships	Social intercourse
Economic	Budgeting	Frugality in managing scarce goods
Aesthetic	Harmony, pleasure.	Harmony
Juridical	Law/negotiations – 'what is due' to each individual.	Retribution
Ethical	Self-giving, generous attitude.	Love in temporal relationships
Pistic	Vision, commitment.	Faith, commitment.

4.7 Aspects are relevant in this study

The aspectual suite is relevant to this study as it allows the identification of both quantitative and qualitative factors as individuals experience them in everyday life. While many theories and frameworks dictate a positivist or interpretive approach that can not be strictly adhered to, Dooyeweerd allows diversity which is particularly useful in multi-disciplinary subjects. All human activities involve all aspects and as such allow us to see meaning in our everyday functions. If we consider mature students involved in the process of I.T./I.S. studies, and relate the aspects we can say

that the pistic function of commitment outlines the individual's dedication to learning in general and to a specific subject area (pistic aspect). Ethically we may want to add to others' understanding of the subject (ethical aspect); while juridically we may feel a responsibility to particular issues such as socio-technical factors or matters of gender (juridical aspect). Aesthetically we may look for harmony by considering I.T./I.S. in a role of entertainment activities as well as in areas of business and education (aesthetic aspect). Economically, information systems are a resource to be made good use of adequately and not wasted (economic aspect). Socially, information systems are used to pass on information to others or create lines of communication (social aspect). The information system itself is a lingual medium (lingual aspect) and has been formed culturally and historically (formative aspect). Analytically, we distinguish for what the information system will be used (analytical aspect). While using the information system the human being is functioning in biotic ways of breathing etc (biotic aspect), while the emotions and feelings are represented in the sensitive aspect and physically as represented in flows of energy (physical aspect). The continuous movement of human beings or restricted movement of disabled human beings is outlined in the kinematic aspect and the space taken by each body or object is credited in the spatial aspect. Quantitatively, all may be represented numerically (quantitative aspect).

4.7.1 Aspects are wide ranging and useful when considering education

From this short illustration it can be seen that the aspects provide a wide range of perspectives from which we can understand human experience. The process of education is diversely multi-aspectual in this manner. It should be noted that, though we might take Dooyeweerd's suite of aspects as they are, for the purposes of this research, Dooyeweerd himself never claimed that they represent any kind of absolute truth; indeed, he claimed the very opposite, saying:

> "In fact the system of the law-spheres designed by us can never lay claim to material completion. A more penetrating examination may at any time bring new modal aspects of reality to the light not yet perceived before. And the

· discovery of new law-spheres will always require a revision and further development of our modal analyses." (Dooyeweerd 1984)

However, there are reasons for believing Dooyeweerd's Suite is more suited to these purposes than others as is illustrated in the work of Basden (2002) – "Why Dooyeweerd's Suite of Aspects?". This researcher does not see Dooyeweerd's aspects as providing direct answers for this research, as only a positive stance can suggest that answers are objectively arrived at in isolation. Rather, the aspects provide a framework of meaning by which researchers can construct their own approach to exploring a diverse everyday situation.

4.8   Conclusion

It is undeniable that other philosophers have made important contributions to understanding elements of society. However, for reasons stated here, Dooyeweerd's Suite of Aspects has been chosen to provide a format for interviews which explore the mature student experience. It is hoped that the exploration of this complex group of individuals will show the importance and usefulness of the Suite of Aspects as an interpretivist/critical design for qualitative research interviews. In addition it is hoped that the critical perspective and aspectual interview design will provide data that allows a rich picture of the mature student experience.

Chapter Five

The Study

"...one idea that must stay is the increased status of ICT [in education], now recognised as the fourth 'R' alongside reading, writing and arithmetic. Every pupil will be expected to reach at least basic competency in technology". (Computing 2004)

5.1 Introduction

Two groups of mature students provide the data-collection base for this research. The first group are mature students studying information technology (I.T.)/information systems (I.S.) as a main discipline at degree level. They are enrolled on a full-time course at a North-West University. The second group are also mature students but they are studying to be health professionals on an 'Access to Higher Education' course at a North-West Further Education College. The 'access' course includes I.T. as a mandatory subject. Therefore each interviewee is studying I.T./I.S. at some level and they are all mature students.

Without dictating the issue of I.T. as a compulsory subject for discussion, the researcher hopes to discover whether or not it has any importance in the lives of these intentional and unintentional students of I.T. The interviews are an attempt to uncover what is important to these particular mature students and also assess the relevance of I.T. along with other elements.

In total, thirty-five individual interviews were completed. This is an endeavour to provide information from the interviewee's perspective. The researcher could have related other possible relationships but refrained from this in order to reduce contamination of the process. The information recorded via the interview transcripts is that which was suggested by the interviewees only. Any suggestions or inference engaged in by the researcher will be recorded separately within the analysis section. However, when asked for, assistance was given by the researcher. This was in the form of encouragement toward the interviewee in order to help them through the interview.

The process began with a small set of pilot interviews which started the journey that eventually led to two different versions of the interview format being utilised due to issues that occurred with the Further Education college students.

5.2 Stages taken through the interview process

This section is a step by step representation of the steps which were taken throughout the interview process and why. This is followed by a much more qualitative narrative of the same process which begins in section 5.6 with - Expectation of the Interview Process.

5.2.1 The pilot interviews

Interviews Pilot 1, 2 and 3 are the initial pilot interviews. Version One of the interview format is the application of the M.A.K.E. model which considers aspects and relationships between aspects.

Stage 1: At the beginning of each interview the researcher took approximately ten to fifteen minutes to broadly explain the method and the research. (The explanation was given to provide a basic understanding of the process and to attempt to allay any fears that the interviewees might have. It gave them an opportunity to ask questions about the process before the interview began). When it seemed that the interviewee was accepting of the process and ready to begin, the researcher asked them to sign an authority form (see Appendix E) which recorded each individual as having consented to the interview process. They were also informed that all information would be treated as private and confidential, they were assured of anonymity.

Stage 2: A printed list of the aspects with keywords (see figure 5.1) was provided for each interviewee. (The list of aspects and keywords was provided for reference. As the Suite of Aspects is not widely known the respondents could not be expected to remember the aspects and relate information to them without some form of visual aid).

Stage 3: A large sheet of paper was also placed in full view of the interviewee on which the researcher drew a partial map of the information given by the interviewee. (The use of maps was reported by Winfield to be of use in the interview process and was the main way of recording information in the interviews of experts which he carried out).

After the first three interviewees had been introduced to the interview process, they all commented in one way or another that the first five aspects did not appear to be relevant. Therefore a mutual decision between the interviewees and researcher was made, that is, to reference only the following ten aspects in the interviews. Due to this the aspectual template was redefined into the following ten aspects: Sensitive, Analytical, Formative, Lingual, Social, Economic, Aesthetic, Juridical, Ethical, Pistic.

Stage 4: The research situation was stated to the interviewees by asking why they had decided to return as mature student and study I.T./I.S. Whatever their reply, the researcher asked if what they had said could be attributed to any of the aspects. When various points of information were being placed in the aspects the interviewees often went on to add more information, which in turn would be placed in the aspects and so on. In addition to this some questions were provided from what the interviewee had previously said, in this way any questions were provided by the interviewee. (The researcher wanted information and any questions needed to spur the interview on, to be provided by the interviewees whenever possible. This was an objective because the researcher wished the information provided to be from the mind of the interviewee rather than at the command of the researcher).

Stage 5: As the interviewees spoke, a map of the aspects and relationships were marked on the large sheet of paper by the researcher but in full view of the interviewee.

(The maps were drawn in order to provide a visual representation of what had been said and also to aid the recognition of relationships which had not previously been noted).

Stage 6: When the interviewees appeared to be finding a natural end with their stories, the researcher checked whether all the ten aspects had been commented on. If they had not, the researcher asked the interviewee if they wanted to make note of the missing aspects in any way. Any further information was made note of.

Stage 7: The researcher then asked the interviewee to look over the map and decide whether or not they wanted to add anything further. In addition, they were asked if they would like to say anything else with no reference to the aspects. Again, any further information was noted.

Stage 8: The researcher thanked the interviewee and advised them that a copy of the map and also an interview transcript would be sent to them for verification. They were told that any mistakes or changes should be referred back to the researcher so that the transcript could be amended.

The experience of the pilot interviews culminated in a detailed template to apply to the interviews, which is presented here as 'the ten step plan'.

5.2.2 Interview procedure – the ten step plan

1. The researcher welcomes the interviewee and asks them to take a seat. They are informed that all information is private and that interviewees will remain anonymous. In addition, any quotes taken from the interview transcripts for use in the research will remain anonymous.

2. The researcher then sits next to the interviewee and places an A4 sheet of paper in front of them with the list of aspects printed on it. The researcher spends approximately ten minutes explaining the interview technique. The

interviewees are told they will be asked to relate their information to one or more of the aspects but that there are no right or wrong answers, that this is a personal perspective and that they are at liberty at anytime to say that they are unable to make a comment or any relationship.

3. The researcher then points to the list of aspects and explains that the first five aspects from numeric to biotic are sometimes accepted as given due to the fact that they are obvious. The researcher highlights this by explaining what happened in the pilot interviews with individual statements such as '*biotic is breathing and if I weren't breathing we couldn't do the interview*'. However, the researcher also suggests that each interviewee is different and that they are welcome to use all the aspects in the relationships they make.

4. The researcher then points to each aspect name individually and talks about the keywords which are printed next to the aspect names (see figure 5.1). The researcher gives an example of an aspect and keywords which are associated such as: The social aspect includes keywords of social interaction, role in society and relationships. Therefore if the answer relates to 'role in society' they may wish to reference this aspect along with others.

5. Next the researcher explains that the large piece of paper laid on the table will be used to map out the information provided.

6. The researcher then asks the interviewee if they have any questions. After this they are asked to sign an authorisation form and the interview begins.

7. The researcher asks each mature student to talk about how they feel about returning to education / their experience of returning to education. Notes of specific points are made on the piece of paper and the interviewees are then asked to relate these to any of the aspects which are again made note of along with any concepts that are stated. This repetitive process carries on

throughout the interview building a picture of the interviewee's thoughts and perspective.

8. When the interview seems to be nearing a natural end (when interviewees are speaking slower than before, are less animated or appear restless/less engaged), the researcher checks through the maps to determine whether any of the later ten aspects have not been utilised. If this is the case the researcher specifically asks if they can be made reference to or not.

9. Then the researcher asks the interviewee if there is anything they would like to say without any reference to the aspects. If so, this is recorded as stated by the individual and the researcher thanks the interviewee for their time.

10. The interviewee is then asked whether or not they accept and confirm the information and relationships and whether they would like to change anything. The researcher then tells the interviewee that a transcript and map will be sent to them for their approval.

The ten step plan was then applied to the first group of interviews in which all respondents are mature student studying I.T./I.S. at degree level in Higher Education.

This is Version One of the interview process as applied in this research project. These are the M.A.K.E. (Multi-Aspectual Knowledge Elicitation) interviews. The M.A.K.E model was applied in a practical sense as is portrayed in Stages 4 to 7 above and the interview format as a whole in the ten step process was followed for each interviewee from 1 to 12.

The interviews progressed and the interviewees provided information which produced a transcript and map with aspects and relationship links. Examples of these can be seen in Appendix A and B.

5.3 Version 2 – The M.A.I.T (Multi-Aspectual Interview Technique) interviews.

Interviews 13 to 25 are based on aspectual statements.

This group of interviewees were mature students on an access to higher education course at a further education college. The researcher began the interviews by attempting to apply the ten step plan which had proved to be effective in the university interviews.

Step 1 of 10: The researcher welcomes the interviewee and ensures them of confidentiality.

Step 2 of 10: A sheet of A4 paper is placed in front of the interviewee with the list of aspects printed on it. The researcher began to explain the interview technique.

However, unlike the university students, the college students were not responsive and appeared uncomfortable and not accepting of the interview process. Due to this, the researcher had to attempt to engage with the students by varying the interview process. To this end, the researcher deliberated over the keywords associated with the aspects, focusing on meanings rather than unfamiliar names. This served to allay their concerns, but, when asking for concepts and relationships the interviewees were not at all responsive. As this same scene was replayed over three college interviews, it was obvious that more changes to the interview format would be required if the researcher was to pursue the course of interviewing the college students. To do so, the keywords from the kernel meaning of the aspects provided manageable guiding links to prompt the interviewees to provide information in relation to the aspects.

The difficulties which occurred during this period provided an additional version of the use of aspects in the qualitative interview process and gave rise to a 'nine step plan' which was implemented throughout the college interviews.

5.3.1 Interview procedure – the nine step plan

Interview procedure – the ten step plan (amended to nine steps for the college interviews).

In the case of all interviews a large sheet of paper was placed on the table. There were always two or more chairs arranged at the table. The following steps were followed for each interview.

1. The researcher welcomes the interviewee and asks them to take a seat. They are informed that all information is private and that interviewees will remain anonymous. In addition, any quotes taken from the interview transcripts for use in the research will be anonymous.

2. The researcher then sits next to the interviewee and places an A4 sheet of paper in front of them with the list of aspects printed on it. The researcher spends approximately ten minutes explaining the interview technique. The interviewees are told that they will be asked to answer questions which will relate to each of the aspects but that there are no right or wrong answers, that this is a personal perspective and that they are at liberty at anytime to say that they are unable to answer.

3. The researcher also states that each interviewee may suggest aspects at any time and that they are welcome to use all the aspects in any comments they make.

4. The researcher then points to each aspect name individually and talks about the keywords which are printed next to the aspect names (see figure 5.1). The researcher gives an example of an aspect and keywords which are associated such as: 'The social aspect includes the keywords, social interaction, role in society and relationships. Therefore when I ask you about your 'role in society' the answer will link to this aspect'.

5   Next the researcher explains that the large piece of paper laid on the table will be used to make notes from the information provided.

6   The researcher then asks the interviewee if they have any questions. After this they are asked to sign an authorisation form and the interview begins.

7   The researcher asks each mature student to talk about how they feel about returning to education / their experience of returning to education. They are then asked to relate to each aspect in turn. This was a simple process of asking them to consider each aspect rather than asking them to state which parts of the information given related to the aspects overall. This repetitive process carries on throughout the interview building a picture of the interviewee's thoughts and perspective.

8   When the interview seems to be nearing a natural end and the final statement has been related, the researcher asks the interviewee if there is anything they would like to say without any reference to the aspects. If so, this is recorded as stated by the individual and the researcher thanks the interviewee for their time.

9   The interviewee is then asked whether or not they are happy with the information and whether they would like to change anything. The researcher then tells the interviewee that a transcript will be sent to them for their approval.

Due to the college interviewees' different needs, the interview procedure was adapted. These interviews provided transcripts and written notes on the paper placed in front of the interviewees, but no actual maps because concepts and relationships were not specifically identified by these interviewees. Examples of the transcripts can be found in Appendix D and E.

5.4   Version 1 revisited – further M.A.K.E. interviews

In order to consider the usefulness of the maps in the M.A.K.E interviews, four more Version One interviews were completed, but the researcher took particular care to consider the use of the mapping process during interviews 26 to 29.

5.5   Version 2 revisited – The M.A.I.T (Multi-Aspectual Interview Technique) interviews. M.A.I.T - aspectual statements, interviews Pilots 4, 5 and 6.

The problems that occurred with the further education college interviews made it clear that some individuals were not easily introduced to the aspectual framework. Therefore, the researcher decided to assess how those who did accept the aspectual framework easily considered the alternative (M.A.I.T.) model. To this end, the first three pilot interviewees were interviewed once more through Version Two. The researcher implemented the 'nine step plan' for the three revisited pilot interviews.

This procedural representation of what led to the plans which were followed for each of the interviews is now followed by a narrative of the same process. The following section repeats the versions and plans noted here in order to show them in practice. However, the following section also provides more descriptive detail of the whole endeavour and reflections of the researcher as they occurred at the time and in retrospect.

5.6   Expectation of the interview process

As previously noted in the Introduction chapter, the aim of this research is to present the Suite of Aspects through an interview format and consider this as a useful structure to gain information about the everyday lives and issues that are important to mature students. The specific areas of research importance were listed as follows:

1.   Mature students studying I.T.
2.   Ways of finding out what is important to mature students.
3.   The notion of 'Aspects' which will aid this exploratory study.

In providing a complementary and/or an alternative to question-based interviews, the researcher will highlight the possible benefits of this format. The following elements of the interview process are considered particularly important in its design and development. It is hoped that utilising the aspects will provide a format which allows the four following elements to be realised.

1. Giving true credence of the experience and perspectives of the interviewees.

The importance of experience in adult learning is noted by many prominent philosophers, theorists and educators (Dewey (1998), Rogers and Freiberg (1994), Kolb (1984), Knowles (1984, 1990, 1998), Carroll (1998, 2002), Freire (1985, 1996), Argyris (2005), Schon (2005), etc). However this is often narrowed to talking about the learning experience as if it were not connected to everyday life. The researcher therefore considers the importance of encouraging interviewees to assess the widest possible range of their experiences and how these have influenced or impacted upon the individuals.

2. Considering aspirations and potentialities 'what is important' to the interviewees.

Given that participation in non-mandatory education is the choice of the individual, 'their aspirations and what they consider their potentialities to be may be a primary factor in the occurrence of continued learning and any recurrence of the learning process. The aspects may allow us to consider different types of aspirations and potentialities. While Winfield (2000) has proposed a method to elicit actualities (expertise), this researcher uses the aspects to elicit potentiality.

3. Credibility of the everyday life-world.

Everyday knowledge is a part of existence which positivism rules out in favour of theoretical thinking. In this way, theoretical thought is held as neutral and therefore worthy of acceptance. Dooyeweerd positions the everyday life-world as significant and a part of theoretical thought giving importance to everyday knowledge. The importance of everyday knowledge as a reason or basis for learning about

information technology or in fact furthering one's education per se may allow greater meaning to surface.

4. Empowerment of interviewees.

It has been previously noted that emancipation is an aspiration that can not be achieved in totality. However, comment was also made that this should not detract from any attempt to reach toward emancipatory values. In this situation the research interviewer should always reflect on the way in which they may be perceived by those involved in the research study giving them due consideration as autonomous individuals.

An attempt to empower interviewees away from feelings of subservience is important in this research. It is hoped that the aspectual framework transcends interviewer and interviewee potentially removing any perception of hierarchy between them.

Within the development and implementation of the interview process specific elements are uppermost in the mind of the researcher: Giving true credence of the experience and perspectives of the interviewees, considering aspirations and potentialities - 'what is important' to the interviewees, credibility of the everyday life-world and empowerment of interviewees.

5.7 The Suite of Aspects and keywords

The two versions of the aspectual interview process were arranged around the use of the Suite of Aspects (Dooyeweerd 1984), with keywords for ease of use.

Figure 5.1 Aspects and Keywords

Aspect	Keywords
Numerical	Calculations, Quantity.
Spatial	Space required.
Kinematic	Predictable movements.
Physical	Energy.
Biotic	Breathing, circulation.
Sensitive	Emotional reaction, feelings
Analytic	Distinction, focus, critical thought, (planning – mistakenly added).
Historical	Deliberate goals, achieving, culture, (planning should have been placed in this aspect)
Lingual	Development of symbols/language
Social	Relationships, social interaction, role in society.
Economic	Budgeting
Aesthetic	Harmony, pleasure.
Juridical	Law/negotiations – 'what is due' to each individual, (justification should have been placed in this aspect)
Ethical	Self-giving, generous attitude. (justification - mistakenly added)
Pistic	Vision, commitment.

In addition, guiding statements were utilised when appropriate. In some instances the visual aid of drawing a map of the information was apt where at other times this was not possible.

5.8 The study as narrative

This is a narrative-style presentation of the interviews which were carried out. It provides insights into the way in which the interview method was shaped and adapted by the researcher in order to make accessible the Suite of Aspects as a format to uncover the experiences of mature students involved in the study of I.T./I.S. This section explains what occurred in the pilot interviews, Versions One and Two of the interview process and also considers the difficulties met and amendments made en route.

5.8.1 The story of the pilot interviews

Pilot interviews 1, 2 and 3 - Version One of the interview format is the application of the M.A.K.E. model which considers aspects and relationships between aspects.

The individuals selected for the pilot interviews were all mature adults who are educated at least to second year degree level. In addition to this they all have experience of being mature students. However, they were not all I.T. students and in order that they should feel comfortable with the subject matter the researcher chose to ask them about their professions.

At this point the researcher was strictly trying not to contaminate the answers in any way. On examination of the pilot transcripts and in retrospect it can be seen that the researcher's comments are particularly sterile and perhaps not consistent with making the interviewee feel comfortable. Despite this, the interviewees seemed relaxed and experienced few problems in relating their thoughts to the aspectual format. This could be a particular advantage of the aspectual suite. It may be that the format supports the interviewee even when the researcher is not as helpful as they might be.

The researcher began with the presumption that every interview would provide some insight into the way that the method may be adapted to the needs of the interviewees and the research process. With this in mind the interviews began.

5.8.2 How the pilots were applied

At the beginning of each interview the researcher took approximately ten to fifteen minutes to broadly explain the method and the research. In addition a printed list of the aspects with keywords (see figure 5.1) was provided for each interviewee. A large sheet of paper was also placed in full view of the interviewee on which the researcher drew a partial map of the information given by the interviewee.

At this point, the first interviewee immediately commented that the aspectual suite from numeric to biotic *"could be taken as read (because) without these things we couldn't do an interview"* (Student reference Pilot 2).

Due to this a joint decision was made between the interviewee and the researcher to reduce the use of the aspectual template to the following ten aspects: Sensitive, Analytical, Formative, Lingual, Social, Economic, Aesthetic, Juridical, Ethical, Pistic.

The interviewee felt that comments could probably be attributed to the noted aspects. Although this was the initial stance of the interviewee it could later be seen that the interviewee assigned information to the physical aspect and in so doing noted eleven aspects. In the process of explaining the aspects to the second interviewee a comment about the biotic aspect was made *"well, if I wasn't breathing we wouldn't be doing this"* (Student reference Pilot 3). Once again it was decided to apply only the aspects from sensitive to pistic. At the beginning of the third interview the researcher related the previous two interviewee's comments and it was decided that the third interview would also be defined through the ten later aspects.

5.8.3 How information was recorded

The aspects and relationships were marked on a large sheet of paper in full view of the interviewees and although interviewees were not instructed that they must join in with the mapping process the paper and pens were placed close to the interviewees in case they wished to take part, however, this did not occur. All information recorded on the maps was that which was communicated by the interviewees. The researcher could have placed other relationships on the map but refrained from this in order to reduce contamination of information. However, when the interviewees asked the researcher for assistance it was given, this was often in the form of repeating what the interviewee had already said which persuaded them to carry on or perhaps simply allowed them a little thinking time.

5.8.4 The purpose of the pilot interviews

The pilot interviews fulfilled the purpose of allowing the researcher to gain some experience of interviewing before the process began proper. In addition, it allowed the researcher to develop a procedural list to follow in preparation and implementation of the interview process. The experience and deliberations of the researcher culminated in a template to apply to the interviews. This is presented as 'the ten step plan'.

5.8.5 Maps

The pilot interviews had followed the pattern expected with the provision of the aspectual list and the information mapped out which was verified by the interviewee. The map allowed a visual 'quick' reference method which helped the researcher to consider each following sequence of the interview at various junctures. It also appeared that the interviewees used the maps as a visual reminder of what had previously been said. Each of the interviewees had provided information which resulted in a transcript and a map which showed aspects and relationship links (see Appendix A and B).

5.8.6 Issues that arose from the pilots

The pilot interviews had progressed as expected except for the concentration on ten rather that fifteen of the aspects. Due to this and after discussion with the researcher's supervisor, the researcher decided to allow each interviewee the choice of whether or not to make note of the fifteen aspects or just the ten later aspects. In addition, it was decided that the researcher would converse more openly via some guidance statements rather than the sterile approach which could be said to limit the responses of the interviewees. Two additional considerations arose from the discussions about the pilot interviews. First of all was the issue of identifying an aspect which the interviewees would be happy to start with as noted in point two of the format advised by Winfield. Due to the conversations with each interviewee about concentrating on ten aspects rather than fifteen the sensitive aspect became the natural start point.

From the experience of the pilot interviews, it can be seen that the pre-sensitive aspects gained few responses, but everyone can talk about feelings (sensitive aspect). But in addition to this is the dependency of relationships. There are two directions of dependency in the aspects. Dependency in the foundational direction is to do with implementation, the lingual aspect could not function without structure and structure is not present without the analytic aspect. But in the anticipatory direction there is an aspectual dependency on the later aspects not just to function but for fuller meaning. It is as though the lingual aspect is designed with the social aspect in mind but to enable exchange gives a richer meaning and therefore anticipates the economic aspect.

Aspects are a result of a reflection on the distinct meanings we find in everyday experience coupled with the desire of the explorer to find everything. We can just be content with a few aspects but exploration is looking for more. This involves shared spheres of meaning. Together in the aspects we find everyday life, reflection, exploration and scientific analysis.

Although starting each interview with the sensitive aspect was accidental it is not difficult to see that the sensitive aspect which relates to feelings and emotions is what might be termed a comfortable or practical place to begin, simply because it does not take any great effort for most of us to say what we feel about something. Certainly, this became the accepted aspect where all the interviews began and no interviewee commented on any difficulty. This corresponds with Oppenheim's (2003) consideration of how to begin interviews:

> "...to get the respondent settled... [the interviewer may ask] ...a wide-open, highly projective general question...such a broad opening question may produce a small flood of information at several levels". (Oppenheim 2003, p. 71)

The second consideration which arose from the pilot interviews was that of the 'correct' identification of aspects and whether or not it mattered if interviewees suggested information within aspects that the researcher would place in another

aspect. At this point it was decided that as the interview technique is a qualitative format the researcher did not want to dictate the associations of comments and aspects made by the interviewees. In addition it is recognised that most statements in conversation are multi-aspectual and therefore open to interpretation. This returns us to the earlier point that the researcher made in regard to presenting the interpretations of the interviewee rather than that of the researcher. However it is thought that the point about 'correct' identification of aspects is a valid one and will be revisited.

5.9 Interview procedure – the ten step plan

In the case of all interviews a large sheet of paper was placed on the table. There were always two or more chairs arranged around the table. The following steps were followed for each interview.

1 The researcher welcomes the interviewee and asks them to take a seat. They are informed that all information is private and that interviewees will remain anonymous. In addition, any quotes taken from the interview transcripts for use in the research will remain anonymous.

2 The researcher then sits next to the interviewee and places an A4 sheet of paper in front of them with the list of aspects printed on it. The researcher spends approximately ten minutes explaining the interview technique. The interviewees are told they will be asked to relate their information to one or more of the aspects but that there are no right or wrong answers, that this is a personal perspective and that they are at liberty at anytime to say that they are unable to make a comment or any relationship.

3 The researcher then points to the list of aspects and explains that the first five aspects from numeric to biotic are sometimes accepted as given due to the fact that they are obvious. The interviewee highlights this by explaining what happened in the pilot interviews with individual statements such as 'biotic is

breathing and if I weren't breathing we couldn't do the interview'. However, the researcher also suggests that each interviewee is different and that they are welcome to use all the aspects in the relationships they make.

4   The researcher then points to each aspect name individually and talks about the keywords which are printed next to the aspect names (see figure 5.1). The researcher gives an example of an aspect and keywords which are associated such as: The social aspect includes keywords of social interaction, role in society and relationships. Therefore if the answer relates to 'role in society' they may wish to reference this aspect along with others.

5   Next the researcher explains that the large piece of paper laid on the table will be used to map out the information provided.

6   The researcher then asks the interviewee if they have any questions. After this they are asked to sign an authorisation form and the interview begins.

7   The researcher asks each mature student to talk about how they feel about returning to education / their experience of returning to education. Notes of specific points are made on the piece of paper and the interviewees are then asked to relate these to any of the aspects which are again made note of along with any concepts that are stated. This repetitive process carries on throughout the interview building a picture of the interviewee's thoughts and perspective.

8   When the interview seems to be nearing a natural end (when interviewees are speaking slower than before, are less animated or appear restless/less engaged), the researcher checks through the maps to determine whether any of the later ten aspects have not been utilised. If this is the case the researcher specifically asks if they can be made reference to or not.

9   Then the researcher asks the interviewee if there is anything they would like to say without any reference to the aspects. If so, this is recorded as stated by the individual and the researcher thanks the interviewee for their time.

10   The interviewee is then asked whether or not they accept and confirm the information and relationships and whether they would like to change anything. The researcher then tells the interviewee that a transcript and map will be sent to them for their approval.

5.9.1 The ten step plan structure has similarities to other types of interviews

Similarities can be seen here with the interview structure for depth interviews suggested by Oppenheim (2003).

> *"[It should be explained that]...the interview will last about an hour...the interviewer ...will maintain confidentiality...[and] ethical standards...questions...will range widely...respondents should be given only a vague idea of the central topics [as it is] spontaneous reactions that are wanted. The setting for the actual interview [should be given some thought] ...positioning of easy chairs...desk...should not form a barrier between the interviewer and the respondent. The respondent should always come away with a vague feeling of pleasure at having been of help and having had an interesting conversation".* (Oppenheim 2003, p. 68-69)

This marked the end of the pilot interviews and the researcher proceeded to the first group of interviews in which all respondents are mature student studying I.T./I.S. at degree level in Higher Education.

5.10 Version 1 – The M.A.K.E. (Multi-Aspectual Knowledge Elicitation) interviews

M.A.K.E: (repeated as for the initial pilot interviews)–aspects and relationships, interviews 1 to 12.

The interview process in Version One proceeded as the ten step plan which is previously listed. This group of interview subjects were all studying I.T./I.S. at

degree level, they were a range of students from the first, second and third year levels which were contacted through the university group project work. Each person provided information within the aspects and relationships between the aspects as the researcher asked them to do. There appeared to be no difficulties or issues of understanding and no discomfort with the interview process. There were just two interviewees who referred to any of the first five aspects from numeric to biotic. The remaining interviewees related to the ten aspects from sensitive to pistic only.

The interviewees easily accepted the use of the aspectual framework as a research framework and spoke of their experiences. The interviews proceeded as the researcher expected. It should be noted that this group of students are introduced to a variety of research frameworks through the I.T./I.S. degree course on which they were enrolled and therefore the researcher never expected the students to have any concerns when relating the use of the aspects to the research interview process. The researcher took care not to make personal inferences and recorded only the reflections of the interviewees.

5.10.1   What happened during Version 1

The interviews had progressed as expected with the interviewees providing information which resulted in a transcript and a map of aspects and relationship links that were communicated during the interview. It appeared that any related guidance statements, which usually reflected what the interviewee had already said, were helpful to the interview process as and when the researcher answered any calls for assistance with encouraging and helpful statements; the interviewees were able to carry on conveying their perceptions. This type of encouragement is noted as a useful 'non-directive technique' by Goodale:

> "Reflecting ideas: Here the interviewer paraphrases what the other party has said. This response usually leads to further comments by the interviewee". (Goodale 1982, p. 14)

While the researcher wished to discover aspirations and potentialities, neither were expressly asked for by the researcher. It is the researcher's belief that the uncovering

of such attributes should not be forced. If possible they should surface naturally while considering the aspects.

5.10.2 Version 1 – further M.A.K.E. interviews

M.A.K.E: (repeated as for the pilot interviews) – aspects and relationships, assessing the mapping process. Interviews 26 to 29.

5.10.3 How the maps were utilised

When considering whether the maps taken in the interviews of university students were complementary to the overall discussion, the researcher traced through the information in the transcripts and the representations in the individual maps. A closer inspection of the maps suggests that no additional information is apparent in the maps. This researcher believes that guiding statements or questions which are inherently structured through the aspectual suite provide a similar process to mapping concepts and links and therefore, when actually mapping concepts and links one is asking aspectually-defined questions which would explain why additional information is not apparent in the maps.

After assessing the previous twelve interviews it was noted that the interview maps may not be providing any further information than that of the transcripts and it was decided that this point should be substantiated by a modicum of further interviews where the researcher could verify this issue. Four interviews were carried out as previously (through the M.A.K.E. model) but with the researcher particularly observing the relevance of the mapping process. This concept is revisited in the Discussion chapter, section 9.9.

5.11 Version 2 – The M.A.I.T (Multi-Aspectual Interview Technique) interviews.

M.A.I.T - aspectual statements.

Interviews 13 to 25

This group of interview subjects were all studying I.T. as part of an access to higher education course. These further education college interviews, by necessity, became a very different process from those carried out at the university. When explaining the research format (the aspects), the interviewees were initially far less responsive than the university students. They appeared uncomfortable (this was noted via verbal comments and body language). When the interview framework was explained, they had either facial expressions of concern or blankness. Comments such as *"Do I have to understand this?"* were common and they did not understand why there was no typed list of structured questions, which they obviously expected. The researcher was immediately concerned that the college students were not at ease with the research interview method (the aspects) and may therefore be less likely to relate information. They could be seen to be uncomfortable via their body language and some remarks.

Such elements of body language were important as a signal to the researcher that difficulties had arisen. Cicourel (1973) states that non-oral elements are important parts of research which should not be taken for granted. While Cicourel would prefer a deep analysis of these issues, this research is not that of cognitive sociology and therefore the researcher assessed these interactions in the form of warning signals which suggested the need for a new initiative rather than a reason for changing the focus of the research away from what was actually being said.

Further, there may be good reason to understand the difficulties voiced by the students. It is important to note that the interviewees at the further education college are not introduced to research theories and frameworks, on a regular basis, in the same way as university students. However, they were studying various science modules and have a wide range of life experiences. Being involved in data-collection about their lives and the educational process they are involved in as mature students should in no way have provided any difficulties for them.

Briggs (1986) suggests that there are basic communicative patterns which are expected and if these are opposed the interview process will be halted. Bearing this in mind the format for Version Two of the aspectual interview process was augmented to assist the needs of this group of interviewees. In addition, Payne (1951) goes to some lengths to show that difficulties in understanding what others might consider *"jargon"* should not be judged at any level as ignorance. When such difficulties occur we should consider how comfortable we would be with references or terminology from another field. Furthermore, Payne positions the responsibility for making concepts understandable squarely on the shoulders of the questioner.

5.11.1 Changes which culminated in Version 2

In view of this and in order to reassure the further education students about their involvement in the interview process the researcher encouraged them to look at the typed list of aspects. The researcher also deliberated over the keyword explanations to assist the interviewees to see past the issue of understanding a research framework which obviously gave rise to concerns. From this short act of persuasion they quickly focused on the meanings rather than the names of the aspects which previous interviewees had concentrated on along with the keywords, and this led to the researcher using the keywords rather than overly using the aspectual names. When asking for concepts the researcher found that the interviewees were not prepared to specify concepts and relationships as the previous interviewees had easily done. They simply reaffirmed what they had previously said without any mention of hierarchy in considering one thing being of greater importance than another. During the first three interviews in this section the researcher went through the process of using aspectual names and asking for concepts but it became obvious that this previously used format was not going to work with this group of students. An attempt at this was made at the beginning of the first three interviews after which the researcher began making statements which related to the keywords referencing the aspects. At the end of the third interview the researcher once again asked for concepts thinking that the interviewee might be able to relate to concepts after talking about his experiences through the aspectual statements. However, this did

not make any difference. By the fourth interview the researcher realised and conceded that there was little point in forcing the previous format and in order to gain any information it would be necessary to specifically provide guiding keyword statements only. Fortunately the aspectual suite lends itself to adaptation. By using the keywords from the kernel meaning of the aspects it was a manageable process to provide short guiding links to prompt the interviewees to provide information in relation to the aspects. Although this was an unexpected occurrence it proved to be serendipitous as a useful format and 'aspectually informed statements' began to evolve. Although the researcher would have hoped for the process to run smoothly as with all the previous interviews it was all the more interesting because the college interviews did not run as expected and forced the researcher to deal with the difficulties that arose on site. This provided an additional version of the use of aspects in the qualitative interview process.

5.12 Interview procedure – the nine step plan

Interview procedure – the ten step plan (amended to nine steps for the college interviews).

In the case of all interviews a large sheet of paper was placed on the table. There were always two or more chairs arranged at the table. The following steps were followed for each interview.

1   The researcher welcomes the interviewee and asks them to take a seat. They are informed that all information is private and that interviewees will remain anonymous. In addition, any quotes taken from the interview transcripts for use in the research will be noted as anonymous.

2   The researcher then sits next to the interviewee and places an A4 sheet of paper in front of them with the list of aspects printed on it. The researcher spends approximately ten minutes explaining the interview technique. The interviewees are told that they will be asked to answer questions which will relate to each of

the aspects but that there are no right or wrong answers, that this is a personal perspective and that they are at liberty at anytime to say that they are unable to answer.

3   The researcher also states that each interviewee may suggest aspects at any time and that they are welcome to use all the aspects in any comments they make.

4   The researcher then points to each aspect name individually and talks about the keywords which are printed next to the aspect names (see figure 5.1). The researcher gives an example of an aspect and keywords which are associated such as: 'The social aspect includes the keywords, social interaction, role in society and relationships. Therefore when I ask you about your 'role in society' I will link your answer to this aspect'.

5   Next the researcher explains that the large piece of paper laid on the table will be used to make notes from the information provided.

6   The researcher then asks the interviewee if they have any questions. After this they are asked to sign an authorisation form and the interview begins.

7   The researcher asks each mature student to talk about how they feel about returning to education / their experience of returning to education. They are then asked questions which relate to each aspect in turn. This was a simple process of asking them to consider each aspect rather than asking them to state which parts of the information given related to the aspects overall. This repetitive process carries on throughout the interview building a picture of the interviewee's thoughts and perspective.

8   When the interview seems to be nearing a natural end and the final question has been answered, the researcher asks the interviewee if there is anything they would like to say without any reference to the aspects. If so, this is recorded as stated by the individual and the researcher thanks the interviewee for their time.

9   The interviewee is then asked whether or not they are happy with the information and whether they would like to change anything. The researcher then tells the interviewee that a transcript will be sent to them for their approval.

Due to the college interviewees' different needs, the interview procedure was adapted. These interviews provided transcripts and written notes on the paper placed in front of the interviewee, but no actual maps as concepts and relationships were not identified by these interviewees. However, this promoted thoughts on the importance of maps throughout the whole process (which was addressed above in sections 5.10.2 and 5.10.3). In addition, the problems experienced promoted a growing appreciation of the differences in further and higher education environments. It should be noted that while the college students struggled with the M.A.K.E model they were not alienated by the aspects which is shown by their relating to aspectual statements through Version Two of the interview process (M.A.I.T). Therefore, a different presentation of the same framework provided a way in which they could relate meaning from a personal perspective.

5.12.1   Version 2 – The M.A.I.T (Multi-Aspectual Interview Technique) interviews.

M.A.I.T - aspectual statements.

Pilot interviews 4, 5 and 6 - (considering M.A.K.E. & M.A.I.T. via re-interviewing).

After the further education college interviews made it apparent that some individuals were not easily introduced to the aspectual format as a framework, the researcher considered what difference might be seen if those who had readily used the format were also introduced to the aspects as statements. Therefore the first three pilot interviewees were interviewed once more through Version Two.

While it is already accepted that the interviewees did not have any problems with the previous interview format it was apparent that Version Two provided a rather more relaxed environment (although this may be because of their previous experience).

These interviewees were not informed about any difficulties that others had experienced. The interviewees provided a full discourse answering in all the later aspects and making comment that they preferred this method due to it being more akin to what they expect an interview to be. This agrees with the occurrence at the beginning of the college interviews when the interviewees could not seem to relate to the previous style of interview but easily communicated through the augmented approach. As the pilot interviewees are not students, this process was not initiated to gather additional information, but to assess the application of the interview process and consider the interviewees' point of view. A range of information was given as had been provided in the previous (M.A.K.E.) interviews. While concepts and relationships were not specifically asked for, some arose from the general discourse which occurred through the answers to the aspectual statements. As has already been noted, the interviewees suggested a preference to this method, but this is no surprise, as they consider it closer to the type of interviewing that they would normally expect. Due to this familiarity they were bound to feel some level of preference. What can be seen is that concepts and relationships appear to surface through both interview formats.

5.13 From M.A.K.E to M.A.I.T

When the researcher began to consider the task of gathering information for this study an appreciation of the Suite of Aspects in Dooyeweerd's Philosophy (1984) provided a possible framework for use. When thinking about this framework and researching this area, the M.A.K.E. model became a likely candidate due to the possibilities it afforded and its previous use in research interviews. However, the needs of the interviewees in the second phase made apparent that a different technique had to grow from the original plan.

5.13.1 Why the changes had to be made

When interviewing the university students the format proceeded as planned but when attempting to interview the college students certain difficulties occurred. It could be seen that the college students were not at ease with the process. They had

expected simply to be asked questions. They did not suggest concepts or relate their personal information to the research framework. They simply appeared to have no experience of this and therefore were unfamiliar and uncomfortable with the process.

5.13.2 Problems overcome

How to gather information from the mature students is the question which has defined this PhD study. The requirements of the mature student interviewees at the further education college meant that the interview technique had to change. The process from M.A.K.E (Multi-Aspectual Knowledge Elicitation) to M.A.I.T (Multi-Aspectual Interview Technique) occurred specifically because of their particular needs. At this point, aspectually informed statements materialised, and keywords rather than aspectual names were indicated. Interviewees then easily talked about their experiences and hopes for the future. Due to the changed format the drawing of maps was not utilised and this promoted further consideration of the usefulness of the maps.

5.13.3 Usefulness of the Aspects

The aspects have shown themselves to be of practical use in designing interview statement which may relate to question design. While Winfield (2000) previously showed the aspects to be useful for interviewing experts, this research outlines the adaptability of the aspectual format and its possible practical use when guiding question design toward a theoretical basis for those interviewees who do not easily relate to research frameworks.

5.14 Interpretation of Aspects

As a qualitative instrument the precise definitions in the aspectual suite must be seen as open to a certain level of interpretation. However the kernel meanings do provide anchor points for each aspect and there are connective elements or echoes of aspects in preceding and following aspects. It is important to be aware that most statements are multi-aspectual and thus will be attributed differently in the aspectual suite depending upon the strength of feeling toward one or more elements. Even a short

statement such as "stupid child" can place importance on the fact that someone is being viewed as unintelligent emphasising "stupid" or simply inexperienced "child". On from this we may qualify someone's feelings about a child or relate the factor of stupidity to financial, legal or in another sense. Once more we see the hermeneutic potential which the Suite of Aspects allows for gathering information and building the big picture from minutiae, most especially in the way very individual information is encouraged to surface because of the absence of finite questions. Due to this it is difficult to assert a positivist right or wrong element into the decision-making process in which interviewees engage when choosing to place a point of information within a certain aspect. This is one reason why the researcher considers that aspectual statements have proven to be so useful. Firstly they remove any nervousness which may be connected (in the mind of the interviewee) with putting the answer in the 'wrong' place and secondly the statements place the interviewees one step away from the aspectual structure as a research framework, this allows them to portray their experiences and give meaning to their concerns and needs.

This researcher believes that language is a myriad of reasoning in which meanings are individual, but this does not preclude shared experiences and a level of shared understanding. Meaning, experiences and understanding will always be unique to the individual. Succinctly noted by Heraclites (535 -475 BC) when he stated; *"you cannot step twice into the same river"*, meaning that both the river and the person are changed the second time.

5.14.1 Using the Aspects in a non-authoritarian manner
While experience and understanding are unique to the person and the time, the needs of the individual are general and here we see the strength of kernel meanings which could anchor a statement more directly to the "correct" aspect. But this can become an exercise in reductionism and not at all the critical context of this research. In order to answer the question - How often did interviewees not attribute information to the "correct" aspect? It would be necessary to deny or reduce the importance of each interviewee's perspective. The researcher believes this to be a debilitating

process and authoritarian in nature. It is the stimulation of wider thought which is the important factor and why the suite of aspects is being applied to the collection of information from mature students. As the researcher has deliberated over the use of aspects at some length for this study, it could be said that her perception of them has greater validity than the choices made by interviewees who have no knowledge of the aspects or their definitions. However, a study of anything is from a personal perspective and therefore my understanding of the aspects can be none other than personal. The only one who could truly make claim to a complete understanding of the aspects is Dooyeweerd himself. However, Dooyeweerd is not a philosopher who lays claim to any possibility of complete understanding by human beings. Having said that, scepticism of aspects as 'not useful' is just as invalid as demoting other people's perspectives. Perspectives of reality and knowledge must be accepted if we are to have any point from which to utilise both everyday thought and deeper considerations of any kind. We can view a positive link between reality and knowledge or the opposite which suggests that knowledge is misleading. Dooyeweerd presupposes that reality is knowledge, that is, friendly not hostile, and so reveals itself to us. The concept of correct identification of aspects is revisited in sections 7.3, 7.3.1, 7.3.2 and 7.4.

5.15. Reflecting on the different versions of the interview.

Keywords to relate to aspects were utilised in both interview styles. However, in the pilot interviews and in interviews 1 to 12 and 26,27,28 and 29 (the university interviews) which represent Version One of the interview format (M.A.K.E), very little guidance appeared to be necessary as the interviewees easily considered the aspects and relationships between them. In addition, hopes and aspirations and many other elements were commented on. These interviews progressed according to plan. Therefore, the researcher suggests that Version One was useful in providing a framework which prompted the interviewees to consider a wide range of issues. The interviewees appeared to be comfortable with the process and willing to consider the relevance of each aspect as it related to their lives. Due to this they spoke of elements such as achievement which might be expected but also some rather

personal issues such as difficulties they have encountered in the educational process and family commitments which are at times extremely sensitive issues. In addition, core personal issues related to the aspirations that they hope to fulfil are shared, this is most often prompted by the final (pistic) aspect.

While the interviews carried out through Version Two of the interview format (M.A.I.T) were implemented differently from the previous format, the underlying framework of the aspectual suite remained the same and therefore provided the same aspectual guidance. So, the same foundation was applied and simply implemented through a different route. The people interviewed who are studying the access to university course do not have the same experience of research frameworks that university students do. However, their lack of familiarity with research methods did not dissuade the researcher from working with those who did not feel that they could relate to the framework due to lack of experience. As a potentially emancipatory framework the aspectual suite allows views from different perspectives which could help people to explore education as part of their lifestyle. Because these individuals did not relate to providing information that would link to individual concepts the researcher quickly adapted to aspectual keywords. This contingent of interviews with all its problems provided insights into the additional uses of the aspectual format and how following the aspects in keyword sentence form allows coverage of a wide range of issues which may not necessarily be assessed when researchers simply allocate questions on the basis of what they think they need to know.

5.16 Remember that MAKE and MAIT are the Aspects

The culmination of the Suite of Aspects (as the main structure), the problems and issues which arose when using the M.A.K.E model and the needs of a particular type of interviewee were all points on the route that led to the obligation in designing M.A.I.T. But, it must always be remembered that both M.A.K.E and M.A.I.T are different forms of, or perspectives on the applicability of the aspectual suite in interviewing.

5.17 Conclusion

Having progressed through the application of M.A.K.E. and the design and application of M.A.I.T. the researcher has reached the following conclusion. A pertinent set of aspects is valid (universally), that is, they can be seen as applicable in a variety of situations. For any given situation we instinctually take a set of aspects as a theoretical base, and use them, this is a leap of faith. We guess that they will aid our discovery as is noted by Clouser:

> *"The very soul of a theory is its hypotheses, and a hypothesis is a guess that is proposed in order to explain something"*. (Clouser 2001, p.52)

While this is exploratory work and therefore inductive rather than deductive in the sense of hypotheses, the everyday form of a hypothesis is a guess and in this instance a guess was made by the researcher that Dooyeweerd's aspects would aid the collection of a wide range of information from mature students. There are other sets of well known aspects such as Maslow's Hierarchy of Needs, Hertzberg's Motivation and Hygiene Factors, Habermas' Action Types, Checklands 5 E's, etc. So, why chose Dooyeweerd? Particular reasons for this are that other sets of aspects can be seen to fit into Dooyeweerd's aspects and Dooyeweerd's aspects explain others, while others can not explain Dooyeweerd's aspects and this is noted by Basden (2004).

Any set of aspects we take is always our own interpretation or misinterpretation. In a historical view of science we can see that much guesswork was carried out. Newtonian Physics were found not to be true but they were a decent guess. In the same way an attempt now to provide a framework for information about mature students needs a theory about how to carry out data-collection and the aspects are a reasonable and practical theory for doing so.

In the practical sense the researcher has experienced how the aspects have helped and guided the interview process by providing what might be seen as a checklist but is actually much more, aspects are sometimes viewed as categories and while this

accommodates a level of understanding it should be noted that aspects are far more than categories, they are spheres of meaning from which additional categories may be designated.. The aspects do not dictate but encourage the wide-ranging thoughts of both the researcher and the interviewees. The researcher does not predict areas of importance, as the interviewees choose what to say in relation to each aspect. While the aspects are not simply a checklist their usefulness as verification that most areas have been considered (as a type of paper trail) is not denied. The researcher also believes that while interviewees are thinking about the aspects they are concentrating far less on 'being interviewed' which allows them to respond in a less structured fashion than ticking off questions to be answered.

M.A.I.T has shown itself to be able at encouraging a wide range of information from people who are au fait with research frameworks and for those who are not. However, in considering both M.A.K.E and M.A.I.T we must be reminded that the defining underlying structure of both is the Aspectual Suite.

Chapter Six

Analysis Section One - The Interview Data

6.1 Introduction

An analysis of both the interview formats and the data gathered are relevant to this study. This chapter begins with the data analysis. However, there are some interlacing comments in reference to the interview formats, as the two elements of data and method are difficult to split apart completely. The hermeneutic process of assessing and reassessing the interview transcripts was implemented. That is, observing the repetition of factors which suggest generalisations that have emerged, nominating these into categories, considering information which does not fit into said categories and deciding how to assess it. Theoretical saturation is considered via levels of information provided for each category and, also in regard to each aspect, that is, whether or not the researcher believes that saturation via the aspects can be useful as an individual theoretical assessment of saturation.

For the purpose of this part of the research process it should be noted that the researcher was the interviewer who carried out all the interviews for this research project. Therefore the role of the researcher here was to apply the hermeneutic process of transcript analysis. This included the repetitious task of assessing and reassessing the statements made by the interviewees and the ways in which they have attributed their comments to the aspectual framework.

6.2 Interview data and emergent generalisations

When considering the data overall, there are generalisations which have emerged. These are categorised as 'Mature Student issues', 'Aspirations/Potentialities', 'I.T.' and a category named 'Other' for a range of further information. The reason for these categories is that all have emerged as having commensurate levels of repeatability in context for both the M.A.K.E. and M.A.I.T. interviews.

It was not surprising that mature student issues and comments relating to I.T. arose out of the interview process. After all, the research situation is that of mature students studying information technology/information systems. However, the research focus is of two parts, those being the interview process and information discovered by this method. As has already been stated, the relevance of uncovering aspirations/potentialities is made note of by various sections in education, and there are reflections of this in humanistic educational theories. Therefore, it was gratifying to see elements of aspirations and perceived potentialities surfacing from the interview transcripts even though they had not been specifically asked for in such terms. However, the difference between an aspiration and one's potential is a rather fine line as noted below, and therefore it can not be suggested that students specifically differentiate between the two. Specifics about aspirations and potentialities could become an exploratory research project in itself, but only once the ability to uncover these elements naturally has been provided. This is what is sought here and the researcher endeavours not to fragment what may be considered either an aspiration or potential. The referencing in the following presentation of emergent generalisations is noted as follows:

MS - Mature Student Issues

I.T. – Comments relating to I.T.

ASP/POT – What an individual thinks they may do or hopes to achieve.

Other – Any comments not related to the above.

A fuller explanation for the consideration of each of the five sections is now provided:

6.2.1 Mature student issues

Often the words 'mature student' are used in these comments. But there may be comments where they do not state these words but are speaking about things that are obviously linked to being a mature rather than younger student. For example comments about age or a long gap between school and returning to education. Issues

under this heading may relate to the educational process as different for mature students compared with younger adult students, benefits/problems of studying with younger students, a preference to work in mature student groups and other issues which relate specifically to being a mature student.

6.2.2 I.T.

Particular points are referenced here when interviewees speak about information technology, information systems, computers, communications technology etc. This section accounts for responses such as I.T. students not expecting to work in IT, students not considering the importance of I.T. in other professions and also the negative and positive elements referenced to information technology and information systems.

6.2.3 Aspirations/Potentialities

The difficulty in interpreting aspirations and potentialities as specifics because of the possible shared meanings can be seen by considering the Oxford English Dictionary definitions of both:

> *"Aspiration: hope or ambition of achieving something "*
> (The New Oxford Dictionary of English 1998, p.99)

> *"Potentialities: the possibility of someone doing something in the future".*
> (The New Oxford Dictionary of English 1998, p. 1451)

While aspirations could be placed in the realms of fantasy or dreams in comparison with potentialities being defined as possibilities in concrete terms of perhaps assessing odds, would be one way of splitting these two meanings. However the researcher believes that it would not be useful to do such a thing in this exploration. For, as noted earlier it would require that the interviewees share the same understanding of the definitions as the researcher. The researcher believes that this would be far better served by making aspirations and potentialities the research situation and therefore allowing some prior definition. However this can only happen when a method has shown its ability in allowing these elements to surface,

as is researched here. Therefore, uncovering aspirations and potentialities as a specific individual research purpose may be considered as future research.

The three generalisations noted above came from the wide-ranging information which was collected via the aspectual suite which supports both the M.A.K.E and M.A.I.T. methods. While the additional information did not provide one strong cohesive generalisation when assessed strictly in relation to the data, it was important to the research focus in respect of the Suite of Aspects as a foundation for interview practice. Therefore a category of 'Other' provides a referencing mechanism. It was always expected that additional information which would not fit strictly into a repeatable category at this time, would surface and a decision was made early on not to disregard it but to provide a form of tracking. It can be seen later as relevant to a holistic view of the interviews in consideration of the abilities of the interview framework.

6.2.4 Other
These are comments which do not belong in the stronger emergent generalisations already noted, they are added under the heading 'Other'.

In the next section each aspect and related comments are provided as tables. Following on from that, the distribution of emergent generalisations is presented as quantities and percentages.

6.3 The M.A.K.E. model information

The following tables present the information gathered via Version One of the interviews. That is, the application of the M.A.K.E. model: Students 1 to 12 and 26 to 29(University)

Table 6.1 The Sensitive Aspect (M.A.K.E. interviews)

Student no.	Sensitive Aspect
1 ASP/POT/IT	Concerns about getting a good job. Thinks I.T. degree will facilitate this.
2 MS	Mature students experience change of character. The experience is different than for that of younger students.
3 ASP/POT &I.T.	Enjoy studying IT and the course. Improved self-confidence. Should ask for more help at uni. Wants to work straight after graduation.
4 ASP/POT	Feeling more confident. But no confidence in the qualification, uni is producing middle managers which is no good for mature student (would have been at that level just by staying in industry). Students just follow blindly.
5 MS	It's different for mature students, they keep quiet in lectures and sit at the front. The younger ones make noise and distract the whole lesson.
6 ASP/POT	Was interested to study IT. Wants a change of career (degree) and change of lifestyle (emigration). Does not want to carry on in same job (Barclay care, call centre). Teamwork is unrealistic because of lack of commitment.
7 I.T.	Does not believe he will use the IT qualification in the long-term.
8 ASP/POT	The whole university experience broadens your thinking. At uni you socialise with different people from different backgrounds. Wants a stable career.
9 MS, ASP/POT, I.T.	I couldn't use a computer and thought I needed to learn. Because of being a mature student – more realistic, not just thinking about money, it's a learning opportunity. Could not have achieved the goal of a degree when she was younger, but is capable now. Younger students have a different attitude to work, don't seem to get stressed. Interviewee feels that once you have started something (degree) you should finish it. Not confident in IT knowledge.
10 MS, ASP/POT,	Wants a good job. Realises now that she was not at all prepared for university (as a mature student). Enjoys mentoring children part-time, wants to help children and make a difference. Managed to carry on with the degree even though she hated it, because she had to prove she could do it.
11 MS	Student had just gone through a life-changing experience (divorce). Wondered what she should do and decided to return to education.
12 ASP/POT	Student believes that qualifications are necessary to get a good job and to gain respect from his family. Worries about understanding everything on the course and has concerns about proving himself to his family.
26 MS	Feelings about being rejected from your workplace because of your age. Concerns over the noise that younger students make.
27 MS	Annoyed that younger students don't make the most of the H.E. opportunity.
28 ASP/POT	Wants to make family proud.
29 ASP/POT	Wants to repay the emotional investment from family and support his family.

Table 6.2 The Analytic Aspect (M.A.K.E. interviews)

Student no.	Analytic Aspect
1 ASP/POT	Only learn theories in the degree, still need to acquire experience. But there are no guarantees of work.
2 ASP/POT	Must have up-to-date knowledge for a profession.
3 ASP/POT/IT	Thought that doing a computer course would make it possible to find a good job. Need to decide about specialising (which modules to take).
4 MS, ASP/POT	Planning to have a new career. Planning and approach to study different as a mature student. Re-entering employment is a backward step for the mature student, they have to start again.
5 ASP/POT	Decided to study computers. Experience brings confidence.
6 MS, ASP/POT, I.T. Other	Must have proof of skills to fulfil emigration criteria (work as an IT professional). Can't see the relevance of some elements of the degree. Not given enough information by the institution. Student believes he will be able to go straight into work after graduation, but this is because of his previous experience as a mature student rather than the degree qualification.
7 ASP/POT/IT	Wants a good IT qualification.
8 ASP/POT, I.T.	Has previous experience and knowledge of business and IT. Wants to work in a summer placement scheme. Must commit yourself to doing the degree work – organise and prioritise. The real change and learning comes when you go into work. Guidance into work would be helpful. Feels capable to go into work because of the course.
9 MS, ASP/POT, IT, Other.	As a mature student you are more realistic; it's not just about money, it's a learning opportunity. Believes that she can achieve a degree now but could not have done when younger. Younger students do everything on the last minute. Finishing the degree is a deliberate goal. Feels the need to prove own abilities. Information in lectures is difficult to transfer, unlike practical experience. Younger students think they know it all. Not confident in IT knowledge.
10 ASP/POT	Want a good job, but will have to plan work time around the family.
11 Other	Planning of time is important due to daughter's illness
12 ASP/POT	Wants to achieve the degree.
26 Other	Nothing was ever planned, things just happened: (negative analytic)
27ASP/POT	Thinking about coming here and what I should do with the rest of my life. I continued to read and be interested (in the study area) even when I wasn't at university (during all the years of work).
28ASP/POT	Focusing on a plan for myself (educational achievement). Analytic thought.
29 ASP/POT	Distinctions about qualifications for work, you can't get the job without the qualifications.

Table 6.3 The Historic/Formative Aspect (M.A.K.E. interviews)

Student no.	Historic/Formative Aspect
1 ASP/POT	Goal: getting a good job, Aim – supporting the family.
2 I.T.	Would like to work in a certain area of IT (SAP engineer). IT fits in with previous experience.
3 ASP/POT	Gaining self-esteem and earning money are equally important.
4 MS, ASP/POT	There should be more modules to help prepare mature students for work because they have deliberate goals and development issues. (Employers may prefer a younger person who can be moulded and paid less).
5 ASP/POT/IT	Need work experience. Experience in IT work gives you confidence.
6 MS, Other	Mature students have a different attitude, viewpoint, goals and upbringing. Teamwork is unrealistic because everyone has to be committed.
7 ASP/POT	Because there isn't much social life at this uni there are no distractions and you get the work done. Believes that the teamworking experience is useful. Course has provided understanding and given a different perspective.
8 ASP/POT/IT	Previously studied business and finance. Has an interest in computers in organisations. Wants to work in a summer placement scheme. Must organise and prioritise degree work. Feels capable to go into work because of the course.
9 MS, ASP/POT, Other.	Younger people have a different attitude, not stressed. Finishing the degree is a planned goal for this student. There are no apprenticeships anymore so younger people are pushed toward university.
10 ASP/POT	Wants her children to have better opportunities and never to feel inferior.
11 ASP/POT	Student believes she has developed personally. Has learned to plan her life in a more mature way. You see that personal goals are achievable. You think you can't do something and then get a good mark, then you realise you can do it.
12 ASP/POT/IT	Student believes that when people are educated they change (think and speak differently which gives them an advantage). Believes that studying IT/computers will make a change in his life.
26 ASP/POT	Leaving school without qualifications made that a deliberate goal (later in life).
27 ASP/POT	I have to sort out what I am going to be doing (maybe progress to PhD).
28 ASP/POT	You have to give up a lot of family and social life but it will be worth it, I will do the PhD.
29 ASP/POT	I need a good job so as to be supportive of my family.

Table 6.4 The Lingual Aspect (M.A.K.E. interviews)

Student no.	Lingual Aspect
1 ASP/POT	Overall communication.
2 I.T.	Using different computer languages.
3 MS, IT,Other	Wants to understand more about how the world works through IT/ technology. Should ask for more help at uni (mature students don't).
4 Other	There is no contact or support from lecturers.
5 Other	Some lecturers do not want to interact with students.
6 Other	An implied vision of the degree is communicated but some parts don't fit.
7 MS, ASP/POT	Big difference between young and mature students. Mature students know what they want, have experience and need to get beyond education to earn some money. Uni should provide practice interviews to help people into work.
8 ASP/POT, Other	Previously studied business and finance. The whole university experience broadens your thinking. At uni you socialise with different people from different backgrounds.
9 MS, I.T, Other	I couldn't use a computer and thought I needed to learn. Has done research into one year placements, committed to doing that. Information in lectures is difficult to transfer, unlike practical experience. Younger students think they know it all.
10 Other	There is a lack of support, communication and understanding is not there between students and academics. Students aren't important.
11 MS	Being a mature student is very different to being a younger student and you have to learn to communicate with them. Once you do, you realise that you do have things in common.
12 ASP/POT	Wants to understand and work in science.
26 MS	Learning is more difficult as you get older.
27Other	My communication skills have been honed, I've benefited from that.
28Other	(Educational experience requires) real world, lingual communication.
29Other	If you share a level of education you can overcome the age gap.

Table 6.5 The Social Aspect (M.A.K.E. interviews)

Student no.	Social Aspect
1 ASP/POT	Wants a good job and a secure future. Other people view mature students as having wasted time previously. Will continue to learn from others when working. Must acquire work experience.
2 MS	Experience and responsibilities influence mature students.
3 ASP/POT	Always wanted to go to uni. Money isn't enough, want to study. Improved self-confidence, university is a whole experience. Wants to work straight after graduation. Self-esteem and earning money are equally important.
4 MS, Other	Wants to study new up-to-date things. Planning and approach is different for mature students. Uni modules should help individuals to prepare for the workplace. Starting work again after being a mature student means competing with younger students with same qualification. Institution is trying to produce robots and the students follow blindly (this is not developing understanding).
5ASP/POT/IT	Want to achieve knowledge and better employment. Wants to work in IT.
6 MS, Other	The environment for mature students needs more commitment to university policies and an authoritarian attitude. Teamwork is unrealistic because everyone has to be committed.
7 ASP/POT , I.T.	I.T. was all the rage so the student decided to study it. There is a better social life at some other universities. Wants to set up a business with his brother. Confident about going straight into work from graduation.
8 ASP/POT , I.T.	Has an interest in computers in organisations. Wants to achieve a stable career. At uni you socialise with different people from different backgrounds. Wants to work and have a good life.
9 ASP/POT, MS, I.T., Other	The interviewee's children are at school which made her think that it was important for her to understand about computers. Younger students do a lot on the last minute and go out 'partying', they don't know what they want to do in society. Wants to prove own abilities. Has done research into one year placements, committed to doing that. Information in lectures is difficult to transfer, unlike practical experience. Younger students think they know it all.
10 ASP/POT, MS, I.T., Other.	Wanted to study psychology but it takes too long. Decided to do something else for family reasons (IT). Wants a good job and make a difference in society. Wants children to have opportunities and never to feel inferior. Thought that she did not deserve a uni place because of all the young people.
11 Other	Has developed lots of different relationships with fellow students and tutors. Believes that some people are jealous of adults returning to education, wishing they could do it.
12 ASP/POT	Believes achieving the degree will be the beginning of a better life (status).
26 MS	Discrimination about age, being rejected at work because of age.
27 Other	Enjoying the new relationships and intellectual stimulation that university experience brings.
28 Other	Importance of social relationships in the family, making them happy.
29 ASP/POT	Important to have a good job that allows time to see your friends.

Table 6.6 The Economic Aspect (M.A.K.E. interviews)

Student no.	Economic Aspect
1 ASP/POT	Wants a good job after graduation, works part-time at the moment. Wants a good degree qualification.
2 MS	A good use of time would be to bring people in from companies to talk to students (mature students need help to return to work).
3 ASP/POT, I.T.	Want to make some money in IT.
4 MS	Planning and approach is different as mature student. Paying for the degree course affects the student.
5 Other	Interested in business as it is in life, everywhere.
6 I.T., Other	Seemed economically sound to study IT. Younger people are not excluded for being disruptive because the institution is money driven.
7 MS,I.T., Other	Thought it would be easy to get a job in IT. IT jobs are well paid. Wants to work to build up capital for own business. Mature students have to do the right degree, they don't have time to do another one.
8 ASP/POT, IT, Other	Wants to achieve a stable IT career. Wants to work in a summer placement scheme. Does not want to do a year placement. The real change and learning comes when you go into work. Wants to work and have a good life. Guidance into work would be helpful.
9 Other	Younger students haven't thought about the benefits of a year placement.
10 I.T., Other	Wanted to study psychology but it takes too long. Decided to do something else for family reasons (IT).
11 Other	Because of disabled daughter the student receives financial help and therefore did not lose much money by returning to education. Being in further education was easy but higher education was more difficult, Money and time became much more difficult to manage.
12 ASP/POT	Wants an education but must earn money too, so that he is not wasting money and living off his family.
26 Other	From being rejected at work because of age, you wonder how you will earn some money.
27 Other	Because of illness; deciding what to do was about the time I have left.
28 Other	An economic investment was made in me, by my family.
29 Other	You can not complete your goals without time and money.

Table 6.7 The Aesthetic Aspect (M.A.K.E. interviews)

Student no.	Aesthetic Aspect
1 ASP/POT	Wants to achieve a decent salary.
2 ASP/POT	Student has a specific life plan but no free time.
3 ASP/POT	Must finish the course and start work. Wants to work straight after graduation. Gaining self-esteem and earning money are equally important.
4 ASP/POT	Will gain pleasure from having a new career.
5 Other	Sometimes too many lectures and team work are on the same day.
6 ASP/POT	Wants a different career from degree and different life by emigrating.
7 Other	Not happy with some parts of the course. Does not feel he has time to do a placement year.
8 ASP/POT, Other	Wants to achieve a stable career. Must commit yourself to doing the degree work, but also try to balance it. We are taught about management theories which seem just to be common sense.
9 ASP/POT	Achievement important rather than job and money.
10 ASP/POT	Child psychology is what the student really wanted to do.
11 Other	Split personality of Mum and student. It's important to have time to relax and then you study better. I wouldn't know that if I wasn't a mature student.
12 ASP/POT	Student's education will be passed on to his children.
26 Other	It wasn't until I stopped working that I realised how stressful it had been.
27 Other	A serious illness completely changed my outlook.
28 ASP/POT	I want to balance my life towards fulfilment.
29 Other	My life balance will depend upon the work deal I make.

Table 6.8 The Juridical Aspect (M.A.K.E. interviews)

Student no.	Juridical Aspect
1 Other	Legal relevance in work.
2 Other	There will be responsibilities toward a future employer. Also a responsibility to extend knowledge.
3 MS, ASP/POT, Other	Doesn't want to waste anymore time because of age. Should ask for more help at uni. Gaining self-esteem and earning money are equally important.
4 Other	Modules should help prepare students for work. No contact or support from lecturers. Should be more commitment from the institution.
5 ASP/POT, I.T.	Wanting to work in IT sector (protection of information).
6 Other	Teamwork is unrealistic because everyone has to be committed.
7 ASP/POT	Everyone owes it to themselves to do the best they can and reach their goals.
8 Other	Previously studied business and finance. The whole university experience broadens your thinking. Guidance into work would be helpful.
9 MS	Younger students think they know it all.
10 Other	The student perspective is that the lecturers may not want to teach and give what is due, but they still get paid for it.
11 Other	Everyone should give and receive respect. Mature students know this and it helps them to listen and understand what is expected. You have to be responsible for your own actions, as a mature student you take this more seriously.
12 ASP/POT	Education changes people and allows them to be accepted (think and speak differently which gives them an advantage).
26 MS	New laws are coming in about not being discriminated against because of age, that's a major thing. But I would say that there should be somewhere at University for mature students (somewhere that isn't so noisy).
27 ASP/POT	I thought about my responsibilities here and became a student rep.
28 Other	I need co-operation and there is a lot here.
29 Other	My family made me, so there are obligations.

Table 6.9 The Ethical Aspect (M.A.K.E. interviews)

Student no.	Ethical Aspect
1 MS, ASP/POT	Mature students want to be useful in society.
2 Other	Must justify change of decisions, attitude and behaviour.
3 ASP/POT	Improved self-confidence. Gaining self-esteem and earning money are equally important.
4 Other	Being mature you must justify what you are doing, you justify it to yourself. No contact or support from lecturers. Should be more commitment from the institution. Students just follow blindly.
5 MS	As a mature student you have to justify your decisions.
6 MS	Mature students have a different attitude, viewpoint, goals and upbringing.
7 MS, I.T.	Wants to gain a good understanding in the IT field of work (for work purposes). Mature students know what is right and wrong for them.
8 Other	The whole university experience broadens your thinking. At uni you socialise with different people from different backgrounds.
9 Other	Student thought she wasn't clever enough to do a degree but now wonders how some of the younger students got on the course. This is her self-justification, being worthy of a place.
10 Other	There isn't enough student support.
11 Other	In group work you must appreciate what others have to say, you must be flexible. Also have to be generous if someone is having genuine difficulties and help each other out. Mature students appreciate the importance of this. Mature students do feel that they have to justify themselves to tutors more than younger students. They expect more of you and you don't want to let them down. A lot of mature students feel like that.
12 Other	Student suggests that he has been lazy and needs to change (personal development).
26 Other	The staff at college had a very generous attitude and pushed us in the right direction.
27 ASP/POT	I try to help people. I'm getting good grades so people ask my advice. I'm happy to help.
28 ASP/POT	Ethical is for the attitude towards work (towards fulfilment).
29 ASP/POT	Ethical is part of my character, to give back when I take.

Table 6.10 The Pistic Aspect (M.A.K.E. interviews)

Student no.	Pistic Aspect
1 MS, ASP/POT, Other.	Mature students are committed to studying and work. The degree doesn't give any guarantees of work. Commitment getting into work and to learning from others but at uni group work has disadvantages.
2 Other	Commitment to other friends at university.
3 ASP/POT	Studying helps people to develop, to see other perspectives. Wants to work straight after graduation.
4 ASP/POT, MS, Other	Want to gain new skills and pass the degree course. Mature students have a more committed and planned approach to studying. No contact or support from lecturers. Should be more commitment from the institution.
5 MS	Would prefer mature student only classes because they are committed to working.
6 I.T.	Studying IT fitted with where I wanted to go two years ago.
7 ASP/POT	Committed to being self-employed in own business.
8 ASP/POT, Other	Wants to achieve a stable career. Committed to achieving a career which will provide for the family. Must commit to doing the degree work. The real change and learning comes when you go into work. Wants to work and have a good life.
9 MS, ASP/POT	Perhaps young people just have a different kind of commitment rather than none. My commitment is to husband and family. Once you start something you must finish it (the degree). Has done research into one year placements, committed to doing that.
10 MS, ASP/POT, Other	Committed to getting a good job. But uni is not first priority, family is. Wants children to have better opportunities and be more confident, children seeing her going to uni might help this. Mature students are more committed than younger ones (they turn up to lectures). Managed to carry on with the degree even though she hated it, because she was committed to proving she could do it.
11 ASP/POT	You have to be committed to doing the degree. You also have to show commitment to other students that you work with and to the tutors (then they will help you). You have to keep your vision to stay committed. I've experienced a lack of motivation and then was reminded of what I want to do (help disabled children through technology), it renewed my commitment. If you can keep your vision, you can keep to your commitment.
12 ASP/POT	Wants to prove his abilities to himself and his family (achieve acceptance)
26 ASP/POT	The sense of achievement is my long term goal.
27 ASP/POT	I want to do something good and useful, not just any job. Doing what I should be doing.
28 ASP/POT	PhD is the pistic vision.
29 ASP/POT	Pistic commitment to education for my vision of the future.

6.4 The M.A.I.T. model information

The following tables present the information gathered via Version Two of the interviews.

That is, the application of the M.A.I.T. model: Students 13 to 25 (F.E.College)

Table 6.11 The Sensitive Aspect (M.A.I.T. interviews)

Student no.	Sensitive Aspect - Why they returned to education?
13ASP/POT	Wanted to learn, circumstances prevented it before, (career as secondary note).
14ASP/POT	Prove to self that doing a degree and have a career is possible.
15ASP/POT	To have a career.
16ASP/POT	To have a proper career.
17ASP/POT/IT	Always wanted to do a degree, wants to earn enough for children to have a private education (better standard than she had). Only reason for studying IT is because you've got to do it on the course.
18ASP/POT	Always wanted to be a midwife (career).
19ASP/POT	It's time to do something for self (career).
20ASP/POT	Wants to do nursing (carer).
21ASP/POT/IT	To have a career (related later in transcript). Only doing IT because it is part of the course, but the classes are useful.
22ASP/POT	Get to uni and become a midwife (career).
23ASP/POT	To have a career (related later in transcript).
24ASP/POT	Prove to self that achievement is possible, (career as secondary note).
25ASP/POT	Just wanted to return to education (career as very strong secondary note)

Table 6.12 The Analytic Aspect (M.A.I.T. interviews)

Student no.	Analytic Aspect - What kind of planning and focus brought them to education?
13 Other	Found out about it by chatting to other Mums at school. Keeps going because of other people's belief (gift from workmates).
14ASP/POT	Went to the college night school first. Focuses on going to uni (UCAS forms).
15ASP/POT/IT	Studied previously. Uses the internet to search for topics in assignments and downloads information.
16 Other	Worked out finances, rearranged working hours. Focuses on the outcome (career)
17ASP/POT	Wants to get a better job than previous work. Needs more than that.
18ASP/POT	Fits work around classes and focuses on career.
19ASP/POT	Gave up work. Focuses on the course work.
20ASP/POT	Puts child to bed early, makes time for the library. Focuses on getting the work done for the course.
21ASP/POT	Gave up full-time work. Focuses on doing all the hours at college.
22ASP/POT	Had to check which course to do. Focuses on getting to uni.
23ASP/POT	Attending college and working. Focus is to get through the access course.
24ASP/POT	Studies when child is in bed. Focus is to get through the course and get a uni place.
25ASP/POT	Gets the work done for college and focuses on finishing the course.

Table 6.13 The Historic/Formative Aspect (M.A.I.T. interviews)

Student no.	Historic/Formative Aspect - Anything they relate to development.
13 ASP/POT	Speaks differently, thinks differently, feels confident and clever, achieving something.
14 ASP/POT	More confident, did not think a career was possible but is now working towards it.
15 —	No comment.
16 Other	Can't sleep because brain is always functioning.
17ASP/POT	Confident now, going to college is part of moving on.
18ASP/POT	Feel a lot more confident at work and better about self.
19ASP/POT/IT	Son has started asking for advice about his homework, it's now possible to be more involved, shares IT experiences.
20ASP/POT	Did not do well at school, doing better at college because it's different.
21ASP/POT	Wants to complete the course and do a degree.
22ASP/POT	Improvement with lots of things
23ASP/POT	More confident now.
24ASP/POT	Student is still the same person but being at college is helping the student to progress.
25ASP/POT	Student has become able to plan things and meet deadlines.

Table 6.14 The Lingual Aspect (M.A.I.T. interviews)

Student no.	Lingual Aspect - Communication and Understanding
13 ASP/POT	Has always been confident at work but felt stupid at college at first.
14 Other	Finds it easy to interact with people at college as they understand about having a family.
15 —	Everything is OK.
16 MS	It seemed difficult at first but not now that the student is more involved in talking to others. Considers that she may be better treated as a mature student.
17 Other	Believes that the tutors like teaching the mature students because they are all attending college to better themselves.
18 Other	Student is friendly with the tutors.
19 MS	Finds it easy to communicate with everyone; believes this is because of life experience.
20 MS	Understanding things better than before and believes this is due to being in a group of mature students, because they are all there to work.
21 Other/IT	Finding things quite easy, finds structured learning easier. IT is structured and therefore easy/lots of on-screen help.
22 Other	Have to make an effort to communicate with the tutors, but if you do they will help you.
23 MS	It's different in a mature student group, everyone gets on with their work and it's easier to study.
24 ASP/POT	Have picked up information better than expected.
25 MS, ASP/POT	Able to speak out more in a group of mature students. Feels more confident.

Table 6.15 The Social Aspect (M.A.I.T. interviews)

Student no.	Social Aspect – Relationships and role in society.
13 Other	More appreciation now of the studying that her teenage children have to do.
14ASP/POT	Less time with family but feels more fulfilled because of college work.
15 Other	Has a friend at college, they started together.
16 Other	Feels more capable and able to help own children with homework.
17 Other	Thinks that people are friendly and get on with the work. The student's social circle is widening which she considers is enjoyable.
18 Other	The student has made friends which makes a difference because they help each other. Daughter helps this student with internet searches.
19 ASP/POT	The student is more assertive with her family. Also more confident speaking in front of a group.
20 Other	People are friendly which helps, it feels strange to be a student again.
21 ASP/POT	Puts a lot of time into studying at home, less social life, wants to achieve, be a professional and for the family to be proud.
22 Other	Has built new relationships at college.
23 Other	Feels on the way to changing, has a mature attitude now and is concentrating.
24 ASP/POT	Making new friends at college. Feels proud of doing something for self.
25 Other	Has made friends which helps in lessons as they help each other out.

Table 6.16 The Economic Aspect (M.A.I.T. interviews)

Student no.	Economic Aspect - Budgeting
13 Other	Has to be careful with money, was already experienced at allotting time but has to use self-discipline in order to study at home instead of always doing housework.
14 Other	Was never very good at budgeting and that hasn't changed.
15 Other	Manages time by doing all studying before work. Manages money by not spending more than he has.
16 Other	Managing money isn't difficult due to financial help from parents. Managing time is difficult, it is split between home study time at college and making sure that the children are not neglected.
17 Other	Housework has to take a back step, the college work comes first.
18 Other	Would not be able to manage if Mother did not help look after the children. Managing money is just managing with whatever is there.
19 Other	Because of giving up work there is less money and the time issue is getting harder to manage as the work increases.
20 Other	Has help and support and just does whatever is necessary.
21 Other	Has to manage work and lectures and find time for assignments which is difficult. Money has been cut by half so has to be more careful (can't buy clothes, but doesn't have time to go out anyway).
22 Other	Financially poorer but it will be worthwhile. Concerned that time at college is time away from own children.
23 Other	Time management isn't a problem and working part-time mean that finances are ok.
24 Other	Has to find money to pay for the course, time management is ok.
25 Other	It's difficult not to spend as much as you did before.

Table 6.17 The Aesthetic Aspect (M.A.I.T. interviews)

Student no.	Aesthetic Aspect – life balance
13 Other	Just recently realised that making time for self is important.
14 Other	Couple of hours each Saturday for self.
15 Other	Not much time.
16 Other	Saturday is day for self.
17 Other	Out with friends sometimes, two hours of study time each evening.
18 POT	Study time is time for self, rather do that than going out (nice to have something better to do)
19 Other	Yoga class.
20 Other	Can't make any time for self.
21 Other	Makes sure to have one night out each week.
22 Other	No time but is trying to make time for self.
23 Other	Trying to make sometime for self.
24 Other	Takes one hour a day for self.
25 Other	When returning home from college has a couple of hours for self.

Table 6.18 The Juridical Aspect (M.A.I.T. interviews)

Student no.	Juridical Aspect – what is due, rights and responsibilities.
13 ASP/POT	Wants to be spoken to as an equal. Feels responsible for doing the best work possible.
14 ASP/POT	Expects to be treated as an equal and feels responsible for studying properly.
15 ASP/POT	Respect and kindness are expected. Responsibilities are respecting others and studying the course.
16 Other	Respect and being treated equally is expected. Responsibilities are to give respect and pay attention.
17 ASP/POT	Easier to be taught as a mature student because of being treated with respect. Responsibilities are to be on time and get the work done.
18 Other	Tutors treat the students with respect, they know you are determined as a mature student. Responsibilities are to have a good attitude, be polite and get here on time.
19 ASP/POT	Mutual respect is important. Responsibilities are respect, punctuality and the main responsibility is to get the work done.
20 ASP/POT	Should be treated the same as other and not spoken down to. Responsibility is to focus on the work.
21 MS	Should be given respect for experience as a mature student.
22 MS	Expects to learn and be treated with respect as a mature student.
23 MS	Respect is necessary and you get it when you are a mature student.
24 MS, ASP/POT	Respect for experience of the mature student. Responsible for own work being done.
25 ASP/POT	Respect is necessary and the responsibility is to learn.

Table 6.19 The Ethical Aspect (M.A.I.T. interviews)

Student no.	Ethical Aspect – Generous Attitude and Justification
13 Other	Students are really helpful to each other. If the children were younger, justification would be necessary, but don't need to justify it to self now.
14 Other	Students give help without even being asked. Justification is needed by some people because they ask why, you also worry that you aren't earning money.
15 Other	Don't care what others think, just get on with the work. No justification necessary.
16 Other	Students help each other which tutors encourage. Work better together. Some people take the mickey about returning to education.
17 MS	People are relaxed and generous because they are mature. It's better for a group of mature students to learn together. Student felt she needed to justify return to education to her father as he thought it a waste of time. Student justified return to self in the beginning but not now.
18 Other	Other students ask if you need help. Family are supportive and student thinks no self justification is necessary. People who are against her are not worth worrying about.
19 Other	Help each other out. Justify return to self, family are not supportive.
20 Other	All help each other. Justify return to self.
21 Other	Students empathise. Justification to self, it's a good thing to do because it makes you realise the commitment you are making.
22 Other	Students are generous and that builds friendships which help get you through the course. Some people will always ask why you aren't working.
23 Other	People are willing to help each other. People always ask why you returned but I am proud of myself.
24 Other	Students help each other (in the same situation). Justification to self.
25 MS	Mature students understand about family commitments, so they help each other. Justifies return to education to family (very accepting) and also to self.

Table 6.20 The Pistic Aspect (M.A.I.T. interviews)

Student no.	Pistic Aspect – vision and commitment.
13 ASP/POT	Committed to the access course and three year diploma, then a part-time degree. Vision is gaining the professional qualification and continued learning.
14 ASP/POT	Committed to going on to university. Vision is entering profession and continuing to learn.
15 ASP/POT	Committed to doing a diploma and then a degree. Vision is to get a good result and work as a professional (at home in Nigeria).
16 ASP/POT	Committed to doing a degree. Vision is to work for the NHS and then go on to private practice.
17 ASP/POT	Commitment to education for self and to show her children a different insight (student's parents did not go to further or higher education).
18 ASP/POT	Committed to doing a degree. Vision is achieving the degree.
19 ASP/POT	Committed to going to university. Vision is to have an education, it gives you confidence.
20 ASP/POT	Committed to going to university. Vision is university then a career and continue to learn.
21 ASP/POT	Committed to passing the course and going to university. Vision is being qualified in a profession and working in it.
22 ASP/POT	Committed to going to university.
23 ASP/POT	Committed to going to university. Vision is gaining self-respect and the respect of professional status.
24 ASP/POT	Committed to a degree course. Vision – would love to do a PhD.
25 ASP/POT	Committed to doing a degree. Vision– professional status.

6.5 Listing emergent generalisations

When considering emergent generalisations particular to this research the following trends were observed:

6.5.1 The Sensitive Aspect

In the sensitive aspect emergent generalisations were recorded as:

Students 1-12 and 26 - 29(university student)	Students 13-25 (college students)
The M.A.K.E. model	The M.A.I.T model
From 22 comments	From 15 comments

MS	x7 (32%)	MS	x0	
I.T.	x4 (18%)	I.T.	x2 (13%)	
ASP/POT	x11 (50%)	ASP/POT	x13 (87%)	
Other	x 0	Other	x 0	

From a record of 22 comments related by the university students in the sensitive aspect, 11 were prescribed to aspirations/potentialities, 7 to mature student issues, 4 to I.T. Considered hierarchically the majority of comments made by the university students in the sensitive aspect related to aspirations/potentialities.

From a record of 15 comments related by the college students in the sensitive aspect, 13 were prescribed to aspirations/potentialities and 2 to I.T. Considered hierarchically the majority of comments made by the college students in the sensitive aspect related to aspirations/potentialities

6.5.2 The Analytic Aspect

In the analytic aspect emergent generalisations were recorded as:

Students 1-12 and 26 - 29(university student))	Students 13-25 (college students)
The M.A.K.E. model	The M.A.I.T model
From 26 comments	From 15 comments

MS	x3 (12%)	MS	x0
I.T.	x5 (19%)	I.T.	x1 (7%)
ASP/POT	x14 (54%)	ASP/POT	x12 (80%)
Other	x4 (15%)	Other	x2 (13%)

From a record of 26 comments related by the university students in the analytic aspect, 14 were prescribed to aspirations/potentialities, 3 to mature student issues, 5 to I.T. Considered hierarchically the majority of comments made by the university students in the analytic aspect related to aspirations/potentialities. (4 comments related to 'other' issues).

From a record of 15 comments related by the college students in the analytic aspect, 12 were prescribed to aspirations/potentialities, 1 to I.T. and 2 to 'other' issues.
Considered hierarchically the majority of comments made by the college students in the analytic aspect related to aspirations/potentialities.

6.5.3 The Historic/Formative Aspect
In the historic/formative aspect emergent generalisations were recorded as:

Students 1-12 and 26 - 29(university student)		Students 13-25 (college students)	
The M.A.K.E. model		The M.A.I.T model	
From 23 comments		From 13 comments	
MS	x3 (13%)	MS	x0
I.T.	x4 (17%)	I.T.	x1 (8%)
ASP/POT	x14 (61%)	ASP/POT	x11 (84%)
Other	x2 (9%)	Other	x1 (8%)

From a record of 23 comments related by the university students in the historic aspect, 14 were prescribed to aspirations/potentialities, 3 to mature student issues, 4 to I.T. Considered hierarchically the majority of comments made by the university students in the historic aspect related to aspirations/potentialities. (2 comments related to 'other' issues).

From a record of 13 comments related by the college students in the historic aspect, 11 were prescribed to aspirations/potentialities, 1 to I.T. and 1 to 'other' issues. Considered hierarchically the majority of comments made by the college students in the historic aspect related to aspirations/potentialities.

6.5.4 The Lingual Aspect

In the lingual aspect emergent generalisations were recorded as:

Students 1-12 and 26 - 29(university student)   Students 13-25 (college students)
The M.A.K.E. model   The M.A.I.T model
From 22 comments   From 14 comments

MS	x5 (23%)		MS	x5 (36%)
I.T.	x3 (13%)		I.T.	x1 (7%)
ASP/POT	x4 (18%)		ASP/POT	x3 (21%)
Other	x10 (46%)		Other	x5 (36%)

From a record of 22 comments related by the university students in the lingual aspect, 5 to mature student issues, 4 to aspirations/potentialities, 3 to I.T. Considered hierarchically the majority of comments made by the university students in the lingual aspect actually related to 'other' issues as there were 10 comments attributed to this, secondly were mature student issues and then aspirations/potentialities.

From a record of 14 comments related by the college students in the lingual aspect, 5 were prescribed to mature student issues, 5 to 'other' issues, 1 to I.T. and 3 to aspirations/potentialities. Considered hierarchically the majority of comments made by the college students in the lingual aspect are split between mature student issues and 'other' comments.

6.5.5 The Social Aspect

In the social aspect emergent generalisations were recorded as:

Students 1-12 and 26 - 29(university student)   Students 13-25 (college students)

The M.A.K.E. model		The M.A.I.T model	
From 30 comments		From 13 comments	
MS	x6 (20%)	MS	x0
I.T.	x5 (17%)	I.T.	x0
ASP/POT	x12 (40%)	ASP/POT	x4 (31%)
Other	x7 (23%)	Other	x9 (69%)

From a record of 30 comments related by the university students in the social aspect, 12 were prescribed to aspirations/potentialities, 6 to mature student issues and 5 to I.T. Considered hierarchically the majority of comments made by the university students in the social aspect related to aspirations/potentialities potential. (7 comments related to 'other' issues).

From a record of 13 comments related by the college students in the social aspect, 9 were prescribed to 'other' issues, 4 to aspirations/potentialities. Considered hierarchically the majority of comments made by the college students in the social aspect related to 'other' issues.

6.5.6 The Economic Aspect

In the economic aspect emergent generalisations were recorded as:

Students 1-12 and 26 - 29(university student)		Students 13-25 (college students)	
The M.A.K.E. model		The M.A.I.T model	
From 23 comments		From 13 comments	
MS	x3 (13%)	MS	x0
I.T.	x5 (22%)	I.T.	x0
ASP/POT	x4 (17%)	ASP/POT	x0
Other	x11 (48%)	Other	x13 (100%)

From a record of 23 comments related by the university students in the economic aspect, 11 were prescribed to 'other' issues, 5 to I.T., 4 to aspirations/potentialities and 3 to mature student issues. Considered

hierarchically the majority of comments made by the university students in the economic aspect related to 'other' issues.

From a record of 13 comments related by the college students in the economic aspect, 13 were prescribed to 'other' issues. Considered hierarchically the majority of comments made by the college students in the economic aspect related to 'other' issues.

6.5.7 The Aesthetic Aspect

In the aesthetic aspect emergent generalisations were recorded as:

Students 1-12 and 26 - 29(university student)	Students 13-25 (college students)
The M.A.K.E. model	The M.A.I.T model
From 17 comments	From 13 comments

MS	x0	MS	x0
I.T.	x0	I.T.	x0
ASP/POT	x10 (58%)	ASP/POT	x1 (8%)
Other	x7 (42%)	Other	x12 (92%)

From a record of 17 comments related by the university students in the aesthetic aspect, 10 were prescribed to aspirations/potentialities. Considered hierarchically the majority of comments made by the university students in the aesthetic aspect related to aspirations/potentialities. (7 comments were attributed to 'other' issues).

From a record of 13 comments related by the college students in the aesthetic aspect, 1 was prescribed to aspirations/potentialities, and 12 to 'other' issues. Considered hierarchically the majority of comments made by the college students in the aesthetic aspect related to 'other' issues.

6.5.8 The Juridical Aspect

In the juridical aspect emergent generalisations were recorded as:

Students 1-12 and 26 - 29(university student)   Students 13-25 (college students)

The M.A.K.E. model   The M.A.I.T model

From 19 comments   From 16 comments

MS	x3 (16%)
I.T.	x1 (5%)
ASP/POT	x5 (26%)
Other	x10 (53%)

MS	x4 (25%)
I.T.	x0
ASP/POT	x10 (63%)
Other	x2 (12%)

From a record of 19 comments related by the university students in the juridical aspect, 10 were prescribed to 'other' issues, 3 to mature student issues, 5 to aspirations/potentialities and 1 to I.T. Considered hierarchically the majority of comments made by the university students in the juridical aspect related to 'other' issues.

From a record of 16 comments related by the college students in the juridical aspect, 10 were prescribed to aspirations/potentialities, 4 to mature student issues and 2 to 'other' issues. Considered hierarchically the majority of comments made by the college students in the juridical aspect related to aspirations/potentialities.

6.5.9 The Ethical Aspect

In the ethical aspect emergent generalisations were recorded as:

Students 1-12 and 26 - 29(university student)   Students 13-25 (college students)

The M.A.K.E. model   The M.A.I.T model

From 18 comments   From 13 comments

MS	x4 (22%)
I.T.	x1 (6%)
ASP/POT	x5 (28%)
Other	x8 (44%)

MS	x2 (15%)
I.T.	x0
ASP/POT	x0
Other	x11 (85%)

From a record of 18 comments related by the university students in the ethical aspect, 8 were prescribed to 'other' issues, 4 to mature student issues, 5 to aspirations/potentialities and 1 to I.T. Considered hierarchically the majority of comments made by the university students in the ethical aspect related to 'other' issues

From a record of 13 comments related by the college students in the ethical aspect, 11 were prescribed to 'other' issues and 2 to mature student issues. Considered hierarchically the majority of comments made by the college students in the ethical aspect related to 'other' issues.

6.5.10   The Pistic Aspect

In the pistic aspect emergent generalisations were recorded as:

Students 1-12 and 26 - 29(university student)	Students 13-25 (college students)
The M.A.K.E. model	The M.A.I.T model
From 26 comments	From 13 comments

MS	x5	(19%)	MS	x0	
I.T.	x1	(4%)	I.T.	x0	
ASP/POT	x15	(58%)	ASP/POT	x13	(100%)
Other	x5	(19%)	Other	x0	

From a record of 26 comments related by the university students in the pistic aspect, 15 were prescribed to aspirations/potentialities, 5 to mature student issues, and 1 to I.T. Considered hierarchically the majority of comments made by the university students in the pistic aspect related to aspirations/potentialities. (5 comments related to 'other' issues).

From a record of 13 comments related by the college students in the pistic aspect, 13 were prescribed to aspirations/potentialities. Considered hierarchically the majority of comments made by the college students in the pistic aspect related to aspirations/potentialities.

6.6 Emergent Generalisations Graph

This graph represents the emergent generalisations in each aspect for both interview models. In order to provide a visual representation of the extensive numerical data there are additional graphs in appendix F.

Figure 6.1 Emergent Generalisations
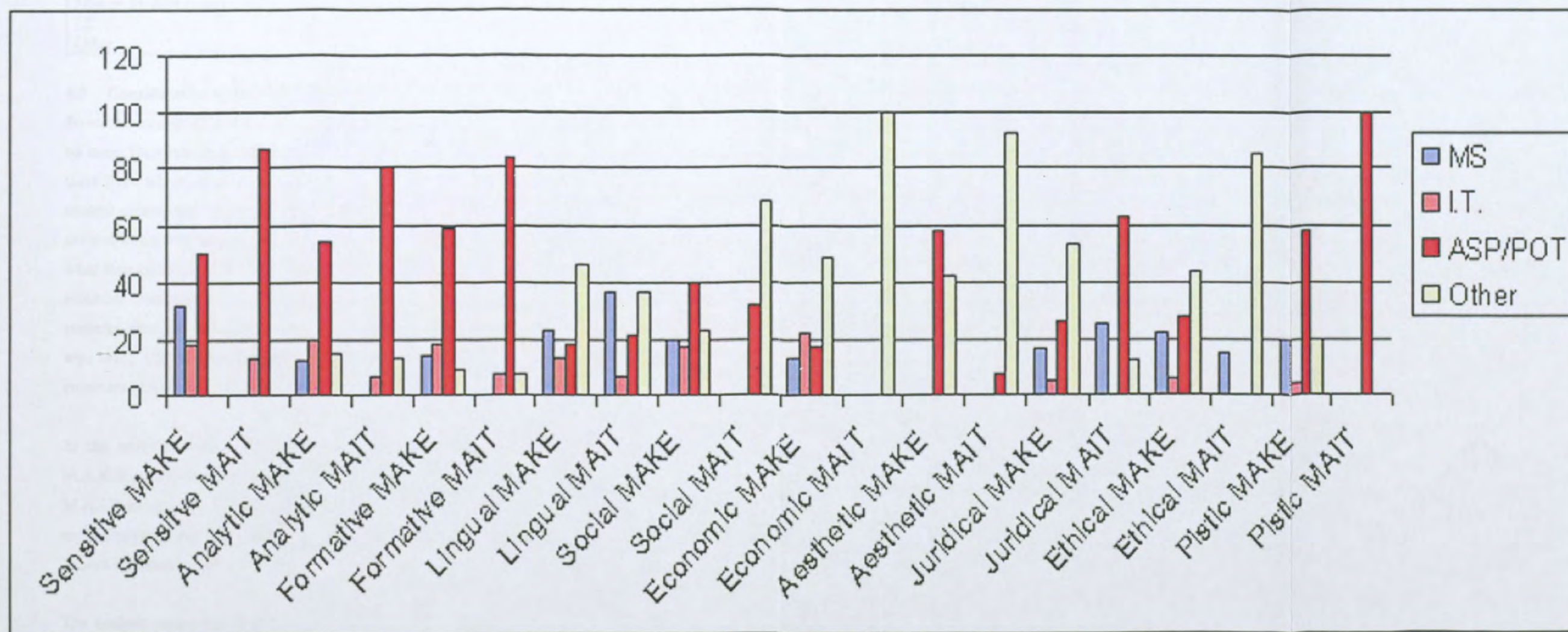
Table 6.21 Categories in M.A.K.E and M.A.I.T.

% of Emergent Categories over all (out of 100)		
	M.A.K.E.	M.A.I.T
Aspiration/Potential	41	47
Mature Student issues	17	8
I.T.	12	4
Other	30	41

6.7 Consideration of emergent generalisations in the data

From the comments given by the interviewees a wide range of information can be seen. They talk about their reasons for returning to education and changes in their lives which may have been a precursor to this, also a range of mature student educational issues are noted. They also speak about things they hope to achieve along with their perceptions of how they have developed personally and what they consider might be possible. In regard to I.T./I.S., there are comments recorded overall in every aspect except the aesthetic aspect by the university students who are studying I.T./I.S. as a discipline. While the college students who study I.T. as a compulsory subject alongside other science modules, only comment in regard to I.T. in four aspects, sensitive, analytic, historic and lingual.

In the sensitive aspect, 50% of the comments made in interviews via the M.A.K.E model were aspirations/potentialities comments. The interviews via M.A.I.T noted 87% of comments related to aspirations/potentialities, making aspirations/potentialities a generalisation which emerged in the sensitive aspect in both interview models.

The analytic aspect has also shown a high percentage of comments relating to aspirations/potentialities via both interview models (54% in M.A.K.E and 80% in M.A.I.T). This means that aspirations/potentialities a generalisation which emerged in the analytic aspect in both interview models.

In the historic/formative aspect 59% of comments in M.A.K.E and 84% in M.A.I.T, referred to aspirations/potentialities. This means that aspirations/potentialities is a generalisation which emerged in the historic/formative aspect in both interview models.

This shows that the grouping of sensitive, analytic and historic aspects may be particularly useful when attempting to gain further insight into the aspirations and personally perceived potential of mature students. These three aspects which follow in the previously stated order relate to the feelings of the individual (sensitive), making distinctions (analytic) and development (historic). Therefore the natural sequence of thinking or feeling that you want to do/achieve something leads to some level of distinction which when implemented may lead to development.

After this point in the aspectual suite the following three aspects (lingual, social, economic) show medium to low relationships to aspirations/potentialities, the dominant factor being 'Other' comments. The lingual and social aspects may be seen as stepping beyond the personal considerations of aspirations and personal potential to communicating and socialising with others and consideration of external factors and so the dominance of 'Other' issues can therefore be understood. However the following economic aspect is particularly interesting as it has resulted in 17% of comments in the M.A.K.E model and zero in M.A.I.T for aspirations/potentialities. This suggests that while immediate thoughts of aspirations regarding career-related development may be thought to relate to finance, it appears that financial considerations are not quite so important when individuals think of what they aspire to and any individual potentialities. This supports the claim by Hertzberg (Huczynski & Buchanan 2001) that money is not strictly a motivational factor. Following on from this is the aesthetic aspect of balance denoting factors in life which are not necessities but make everyday life improved for the individual, elements such as beauty and fun relate to this aspect. Understandably, due to the differing ideas of what constitutes beauty, fun etc, 'Other' comments were medium to high across the two interview models.

In the next aspect (juridical) 'Other' factors were dominant in the M.A.K.E model at (53%) and aspirations/potentialities were placed as the highest in the juridical aspect via M.A.I.T at 63%. As they both were calculated as over fifty percent they count as generalisations which have emerged. Therefore 'Other' is the emergent generalisation in the juridical aspect via the M.A.K.E. model and aspirations/potentialities is the emergent generalisation in the juridical aspect for

the M.A.I.T. model. As the juridical aspect denotes law and negotiations it is not surprising that it does not always directly impact on thoughts about aspirations. But as M.A.I.T showed the highest factor of aspirations/potentialities it may be that there is a link between potentialities which may perhaps be restricted by legal issues and negotiations. This could be related to negotiations for entering university which the M.A.I.T interviewees are considering.

The ethical aspect of generous attitude showed 'Other' issues to be most prominent in both M.A.K.E (44%) and (M.A.I.T) 85%. This means that 'Other' as a generalisation emerged in the ethical aspect in both interview models.

The final aspect, Pistic, shows aspirations/potentialities comments at 58% in M.A.K.E. and 100% in M.A.I.T, making aspirations/potentialities a generalisation which emerged in the pistic aspect in both interview models.

6.7.1 Aspirations and potentialities in the data:

Aspirations and potentialities are noted as important by educators and agencies involved with mature students. But it should be remembered that aspirations and potentialities are multi-aspectual, as can be seen by their consideration in the majority of aspects at varying levels. However, it should also be noted that this generalisation has shown itself to be active in particular aspects.

The first three aspects of sensitive, analytic and historic display high levels of aspiration and potentiality comments, from 50 to 87%. The lingual, social and economic aspects have a mid range of comments in relation to aspirations and potentialities from 0 to 40%. The aesthetic, juridical and ethical aspects show low to mid-range relationships to aspirations and potentialities 0 to 63%, while the pistic aspect provides 58% of aspirations/potentiality comments in the M.A.K.E interviews and 100% in the M.A.I.T interviews.

Tracing through the allocation of comment types and attributing percentages of aspiration and potentialities, comments suggests that it would be useful to concentrate particularly on the sensitive, analytic, historic, aesthetic, juridical and pistic aspects. It should be noted that the sensitive and pistic aspects were those

that showed the greatest level of comments for aspirations/potentiality. While the researcher does not suggest that these be alienated from the other aspects it may prove useful to be particularly observant of the comments and relationships in these areas in order to begin understanding the importance of the aspirations and potentialities factors for mature students.

6.7.1.1 Overall assessment of aspirations and potentialities

When considering what is important or uppermost in the minds of the mature university student, the qualitative detail within the data categorised as aspirations/potentialities shows a picture of mature students who are concerned predominantly with issues of work. They have often given up work to re-enter education and comments about help to get back to work were noted. There is obvious concern about the competition of much younger adults and age as a social divider. There is also an element of not just wanting a job, but wishing to make a difference and be useful in society. This is only to be expected as they have previously experienced work which was not particularly fulfilling and now aspire to better things. The data also displays a strong sense of the importance of this learning opportunity being something which was not available to them at an earlier period of their lives and so this is not just a qualification, it is the whole experience which holds importance for them. In addition there is a message of personal achievement in the form of gaining self-confidence and self-esteem. These elements are all judged important to the relationships they have with their families, in the form of respect, finance, being good role models and acknowledging that their families as well as themselves have made an investment in the return to education.

The information provided by the college students in regard to aspirations and potentialities provides a similar yet differently balanced picture of elements. The most important thing that arose from this information was outstandingly the importance of the educational experience followed by the level of personal achievement. The importance of work comes as a very close third. After this family issues are noted.

The difference of the importance of work, in first place and learning experience as secondary in the university data, compared with learning experience first and the importance of work third in the college data can easily be explained. The difference hinges on the point at which both groups are in the educational process. The college students are concerned with acquiring a place at university as their next step, while the university students need to find work for when they finish their courses. Taking note of these external factors shows that the information recorded about these two groups is very similar suggesting the parity and usefulness of using an aspectual foundation for collecting information from mature students.

6.7.2 I.T. issues in the data

6.7.2.1 Interviewees studying I.T./I.S. in Higher Education

From the interviews carried out (not including the pilot interviews) 52% of respondents were studying an I.T./I.S. degree and 48% were studying I.T. as a compulsory part of an access to university course. Those studying I.T./I.S. were interviewed via the M.A.K.E. model and it is no surprise that these interviewees made many more references to I.T. than the other respondents. All of these interviewees intend to work as I.T./I.S. professionals after graduating, except one who is considering options of a family business (non-I.T.). Two of the interviewees noted their plans to use I.T. as a way-in to what they really want to do. Both these interviewees are female, one says that she wants to use I.T. in education to help disabled children and the other wants to get a 'foot in the door' of a charitable organisation via an I.T. job but then move on to working with disadvantaged children. While many did not know exactly what they wanted to do, they did want to work in the I.T. sector. One male interviewee reflected on the way I.T. will allow him to work from home or become a teacher.

"I thought that if there is one area at my age where I might be able to get some work it is I.T. even if it's working from home. So the initial point was to get some qualification that would lead to work but I didn't think I could carry on in design because I'm too old, but thought I might get some I.T. work...My other option is the postgraduate teaching qualification which is open to any age, so that's what I'm thinking about now, to finish off my years as a part-time teacher, apparently I.T. skills are in short supply". (Student reference 26)

This shows how the potential options envisaged from gaining an I.T. degree are just as important to mature students as they are for younger adults at the beginning of their careers.

6.7.2.2 Interviewees studying I.T./I.S. in Further Education

The interviewees who were not studying I.T. as a main subject only utilised four of the ten aspects when referencing I.T. and when viewed as a percentage, the range of comments regarding I.T. covers the limited quantity of 7-13%. However, considering that these interviewees are not directly studying I.T. as a subject this is a rather greater ratio than might have been expected and it does at least show that they are aware of some impacts of I.T. on their lives. That being said, the researcher did not specifically ask all the students studying I.T. as part of a college course whether or not I.T. was useful to them because of wanting to consider whether or not it was part of their everyday thinking in relation to education and the professions they will take up after graduating from university. As seen here, it obviously is not having a strong impact. The following quotes suggest that while some elements of I.T. are seen as useful, the development of others or the concept of I.T. being an aid in college work is limited.

> "*I studied I.T. and English before I came here. Now I use the internet to search for a topic for assignments and download information. But I don't type assignments, I write them*". *(Student reference 15)*

> "*Yes, before the I.T. classes here I'd only done word processing. I.T. is just part of the access course. It doesn't really have anything to do with the other classes because you can hand write assignments*". *(Student reference 16)*

For the researcher this flags concerns about adults and I.T. in society as it appears that no consideration of the technology which is prevalent in our society, homes and everyday lives, seems to be recognised as particularly relevant, let alone important. Even though these individuals will train as professionals for areas which are not strictly I.T. related, the majority see their futures as working for the NHS which is dependent upon information technology and information systems on a grand scale. Most of these individuals will be expected to use I.T. during their working day in one capacity or another. However, they do not appreciate the relationship of learning elements of I.T. and the performance in

their professional working lives (or from college lectures to daily life). In conversation with one of the college students the researcher was told about the computers that are on most hospital wards. The student said: *"I'll have to find someone there who knows what they are doing with the computer"*. The researcher replied *"Well, that could be you. You could be the person who knows what to do with the computer. Wouldn't that be better"?* The student said: *"No, I.T. just isn't me, but there'll be someone else"*. (Student reference 17)

However, this isn't the full story because while this student dismisses her I.T. abilities she also states what she has realised from using I.T. and makes a link to her home life.

> *"[The I.T. classes have] been useful ... what I've really learnt is that the computer can tell you what to do if you take notice of the messages and directions. Like the stuff on the toolbar, it's telling you what to do and I've shared some of that at home with the children but then other things they already know. I don't always enjoy the I.T. lesson but ...you can't not do things just because you're bothered, you don't realise at the time but these things come in later on because a computer is just a tool really so I need to use it"*. (Student reference 17)

One particular interest regarding I.T. appears to be linked to interacting with or helping their children:

> *"The main thing is with my youngest son who is twelve, he's started asking me about his homework and I'm getting more involved that way. I say to him look what I've done today in I.T., do you know how to do it? And he said 'yeah, we do that'.. I want to surprise him with something. So there's a bit of competition between me and my son, it's nice"*.
> (Student reference 19)

However, such comments are also recorded in the interviews with females studying I.T. at degree level. Certainly though, the students who view their future careers as in the NHS could utilise I.T. much more effectively in their studies. This could well lead to a greater appreciation of how I.T. can be integrated in the learning process and provide valuable skills for the workplace, this appears to be a missed opportunity.

An overall evaluation of the data provided by the university students shows that predominantly I.T. is related in their minds to getting a good job. Whereas the

meagre level of comments attributed to I.T. by the college students are related to using the internet, I.T. at home and specifically but sadly, only studying I.T. because it is compulsory.

6.7.3 Mature student issues in the data:

Mature student issues are rather different between the college and university students. In particular this hinges on the fact that the further education group are taught as a section of mature students only. Therefore issues of noise in lectures and other difficulties associated with age difference did not occur in the same way as for those at university. The mature students at university made note of the noise issues and lack of discipline along with a perceived need for a quiet area for mature students. There were some striking differences perceived in attitudes to work, including consideration and respect for others. Although it should be said that there was also some praise of younger students who had been generous and sociable and a few comments regarding things that mature students thought they had learnt or benefited from because of working with younger students.

The very obvious differences in the data are seen in the detail that the university students suggest as differences in being a mature student. That is, being and feeling very different from their younger counterparts. The group of university students who were interviewed for this study are certainly far less in number when compared with the amount of full-time young adult students. This of course takes its toll and provides a certain view which is shared by most minorities, that is, not fitting in. This links to the next element of comments about age where such extreme experiences as feeling that a place in higher education is not deserved because they are too old. This underlines how some mature students still see higher education as a bastion of the young. The difference between this and the picture portrayed by the college students is extreme. Mature student issues were much less on the minds of those in further education and it is simple to ascertain why. The group of college students that were interviewed for this study are taught separately. They do not mix with the younger students and many comments commend this as building their confidence and being part of a more respectful learning experience. Due to this system the

college students compare themselves less and therefore do not under-rate themselves through any comparisons.

6.7.4 'Other' issues in the data:

There are always various comments that do not particularly fit into the research area. But, it was noted early on that as part of this exploration of data-gathering the researcher did not want to simply dismiss elements which were not emergent generalisations. As this is an aspectual exploration, the additional comments were both expected and welcomed as they may provide useful insights for further exploration. These comments ranged from considerations of emigration to New Zealand, the problems caused by lack of apprenticeships for young people in England and how housework has to take a back step while college/university work is completed. While there is a huge range of 'other' issues, these comments allowed the interviewees to reflect on the whole picture which represents and respects their experiences.

6.7.5 The data-collection method and experience of mature students

The eventual decision to concentrate on the data-collection method, alongside the data gathered in regard to this subject area, would emerge from an essential requirement. As a mature student returner to education the researcher had an opportunity to interact with likeminded people of a similar age. The importance of prior experience soon became an apparent factor in the choices that this 'type' of student makes in relation to further learning. This is shown in comments made by the interviewees:

> *"You have to decide what you need...When you're younger you finish a course maybe when you're twenty-one and you've still got time to like choose another course or degree...I'm not in a position to think well I don't really like it so I'll do another degree like law or whatever".*
> (Student reference 7)

In addition, the opportunity to learn, which perhaps was not made possible earlier in life, is prized as far more than simply a way of improving their financial situation. While greater financial opportunities are always a factor, the learning process is also about achieving personal goals:

"It wasn't about doing it [the degree] for a job with fantastic money. I was just doing it for me. I think when you're mature though you are more into that sort of thing really. You see it not just for a career but a learning opportunity...Achieving a goal that I didn't think was within reach, especially when I was eighteen. I didn't think I was clever enough to do a degree". (Student reference 9)

6.7.5.1 A subject not studied at school

In addition to mature students facing a range of life changes to embark upon this learning experience, the first group of interviewees in this research have chosen to study a subject that they have no prior experience of from their time in compulsory education. So, while experience is important to their choices and their learning process they seem not to be apprehensive about their lack of previous structured learning in the subject area they choose to study at degree level. The following student quotes provide examples of the mature students' determination to overcome any obstacles which may prevent them from achieving their goals:

"I'm not a very confident person in my own abilities with I.T....But, practical experience will help with that, actually doing the job". (Student reference 9)

"My vision is working with disabled children and technology to help them... I wanted some self-worth so the main thing is progress in what I can do...". (Student reference 9)

6.7.5.2 How mature students came to I.T.

While there are some who have work experience of I.T. at varying levels others have reasons for studying I.T. which began with simple concerns such as not understanding the use of computers, skills which their children often seem to take for granted. The following quotes are examples of the mature students concerns in regard to keeping pace with their children's learning and also how some mature students could be said to have 'fallen' into I.T. because of previous work experience, rather than choosing it for vocational or professional reasons, although this is not always the case:

"...my brother gave me this computer and I couldn't switch it on and that made me think I ought to learn especially because of the children at school". (Student reference 9)

"The main thing is with my youngest son who is twelve, he's started asking me about his homework and I'm getting more involved that way. I say to him look what I've done today in I.T., do you know how to do it"? (Student reference 19)

"...the link [to study I.T.] was because since I was sixteen. I've always worked on a VDU or computer...I knew I could understand and fix computers...So, that's why I chose I.T. I thought it would be easy, it's not". (Student reference 10)

Consideration of mature student issues highlights various points, from the emotional investment they make to their commitment towards personal development and better employment prospects. The following quotes particularly show the importance of self-respect which the students feel they will gain from this second chance at the educational process.

"[I want] to do the job and have that professional qualification, and that cap and gown, I can't wait for that. Just because I never thought, I never imagined I could. Right at the beginning I must admit to thinking 'who am I trying to kid'? But I know I can do it and it came about because of this other Mum [at the children's school] telling me and since, I've met someone else again who wants to do this and I've passed the information on and because I'm here now I tell anybody that I think might be interested". (Student reference 13)

"My vision is gaining self-respect. I'm not just a single Mum who's a waitress. A good job will mean that I can support myself and my little girl. Then I can support her through college and university too. Also I'll have the respect of professional status". (Student reference 23)

6.7.5.3 How the mature students came to Further/Higher Education

In addition to such personal issues there are the broader concerns of access to higher education for mature students in the widening participation question. Many mature students previously considered that they did not belong in further or higher education and often it is contact through access courses that provide an avenue for those who would not have otherwise considered returning to education:

"For me the access course has been important. Personally I told myself that if I failed the access course I should give up study altogether. Because maybe it's not for me because I'm not that clever". (Student reference 12)

This is not to say that the process is easy for mature students even when they are assisted by courses aimed at guiding them back into education. It can be seen that some, particularly in Higher Education may feel alienated:

> "...for mature students, it is quite hard to settle in. A bit more thought should be put into it, maybe group meetings or something... coming in as a mature student you haven't got that exam technique, haven't done exams for a long time and that was really difficult and even report writing as well. These are just taken for granted really". (Student reference 9)

However, once they begin the learning process again, the confidence of these students increases not just in the learning situation but has effects in other areas of their lives:

> "I think differently and see things differently, I feel confident and this sounds silly but I feel clever, as if I'm worth more and better. I feel like I'm achieving something and I've never been able to say that". (Student reference 13)

> "[I want] to have an education, definitely, and to be able to speak to people in professions. I've always met teachers and doctors and felt a bit uncomfortable really. Education gives you confidence to do what ever you want to do. I think that's what pushed me here actually".
> (Student reference 19)

These quotes give a small illustration of the variety of feelings associated with returning to education.

6.8 Conclusion

This interview process has seen a wide range of information applied to the aspects by the interviewees. Any concern that the adoption of Dooyeweerd's Suite of Aspects might lead to an uncritical slot-filling process has proved to be unfounded because its main use has been to stimulate the thinker to consider aspects that might otherwise have been overlooked. This is made clear by the experiences of the interviewees which at times are very personal, and sometimes profound. They are not simply filling in the spaces, they are conveying real life experiences which provide an insight into the range of the mature student experience including their concerns, their hopes and their aspirations.

The researcher noted some concerns earlier regarding the lack of interest in relating I.T. studies beyond the classroom. As information systems are endemic in all parts of society and are relied upon to fulfil a variety of functions this begets a necessary provision of individuals who are suitably qualified professionals. In addition it has become incumbent upon the individual in most professions to learn a certain level of I.T./I.S. skills. Therefore adult learning can only benefit from encouraging any link of theory and practice in the progression toward an understanding of I.T./I.S. as a tool necessary to the majority of professions. Perhaps a greater understanding of I.T. in everyday life would facilitate this.

The data analysis was a hermeneutic process of assessing and listing the aspectual references made by each interviewee. The next stage was to consider any emergent generalisations from the data. It can be seen that the analysis allowed emergent generalisations to surface. The generalisations reflected the focus of the research which in turn suggests that the process of data collection and analysis is fit for the purpose of this study.

Chapter Seven

Analysis Section Two – The Interview Framework

7.1 Introduction

In this section of the analysis the researcher is specifically assessing the Suite of Aspects through the M.A.K.E. and M.A.LT. models as useful for the purpose of interviewing. As was noted in the previous part of the analysis, the interview framework and the data provided via the framework are interlaced and as such can not be split apart completely. Due to this, making some relationships to elements of data is necessary. However, the dominating research issue in this section is that of the interview framework itself and as such the researcher explores the usefulness of the Suite of Aspects in acquiring a wide range of information. Generalities as well as individual specifics, everyday/life-world issues such as aspirations and potential, and providing a potentially emancipatory framework all have importance. The researcher now considers the framework in relation to these points.

7.2 Analysis of interview formats

The M.A.K.E and M.A.LT interview formats share the underlying structure and philosophical values (the importance of meaning, value of everyday knowledge and experience) of the aspectual suite. Obvious differences are those of a practical nature. When practicing an interview technique the respondents may have different needs, but this should not exclude them. The M.A.K.E. process asks people to talk about the educational experience and retrospectively assign what they have said to the aspects, as they see fit, while M.A.LT asks people to talk about their educational experience within the aspects considering the aspects first and then assigning their information where they see fit in the aspectual suite. However, the underlying framework of the aspectual suite means that the necessary links or statements are aspectually informed. This provides the same foundation for each style of interview. The people interviewed who are studying the access to university course are articulate, mature students. But, they do not have the daily experience of research frameworks and concepts in the same way that many university students do. However, their lack of familiarity with research methods and methodologies should not remove them from the aspectual

interview process. As an emancipatory framework the aspectual suite allows views from different perspectives which could help people to explore education as part of their lifestyle.

7.2.1 Everyday life

The theory of aspects presents the importance of everyday knowledge and does not subordinate it below scientific knowledge. The level of everyday experience and therefore comments related to this would show whether the framework had or had not encouraged this type of remark. While theoretical thought links to distinction and planning, everyday life continues to be played out around us whether we theorise or not. Everyday life is the often unplanned and untidy part of existence which will not be ignored. Therefore theoretical life may be seen as preparation such as considering options and constructing a future while everyday life constructs itself and demands your attention (work, money, family life etc). When reflecting about this (theoretically) in relation to aspirations and potentialities it can be said that within a hierarchy of needs such as Maslow's (Huczynski & Buchanan 2001), the everyday life issues of comfort and sustenance must be attended to before theoretical thought can occur. After all, when a human being is hungry they can think about little else than finding food. Therefore everyday life is important as individual everyday reality dictates our level of aspirations and potentialities. Critical theory expands on this when noting that individuals can improve, achieve and change their lives but also acknowledges that social and political factors constrain them. In order to consider the potential of the Suite of Aspects to collect everyday life information along with theoretical thought the interviews were assessed and the following level of remarks in the 'theoretical' style and 'everyday life' style were noted:

Table 7.1 Prof/theoretical life and Everyday life

	Prof/theoretical life	Everyday life
University Students		
Student 1 (male)	4	7
Student 2 (male)	5	5
Student 3 (male)	4	9
Student 4 (male)	3	8
Student 5 (female)	2	10
Student 6 (male)	5	15
Student 7 (male)	5	9
Student 8 (male)	7	7
Student 9 (female)	0	12
Student 10(female)	6	23
Student 11(female)	1	15
Student 12(male)	2	6
College Students		
Student 13(female)	4	15
Student 14 (female)	3	9
Student 15 (male)	3	7
Student 16 (female)	2	12
Student 17 (female)	0	13
Student 18 (female)	2	11
Student 19 (female)	1	12
Student 20 (female)	2	10
Student 21 (female)	3	8
Student 22 (female)	2	9
Student 23 (female)	2	10
Student 24 (female)	1	12
Student 25 (female)	4	10
University Students		
Student 26 (male)	3	9
Student 27 (male)	2	14
Student 28 (male)	6	5
Student 29 (male)	4	5
Total:	88	297

University mature students studying I.T./I.S. = 9 male, 4 female and non-I.T – 3 male. College mature students (I.T. as part of Nursing/health care) = 1 male, 12 female. Therefore, the university group was 75% male and 25% female, while the college group was 92.3% female and 7.7% male.

All students made at least one everyday life reference and except for two interviewees they all made at least one reference to professional/theoretical life. Two interviewees made an equal number of comments on both professional/theoretical and everyday life, they were both male. But the total of everyday life comments easily dominates professional/theoretical life comments by a ratio of 3.4 to 1. Therefore, even though the study is explained to each interviewee as an exploration of mature students in education (education having a strong theoretical base), everyday life issues still emerge very strongly in the aspectual framework in respect of the study area.

7.2.2 Utilisation of Aspects

The researcher next considered whether the aspects appeared to be naturally related to by each interviewee or if there were difficulties with any particular aspects. In order to explore this level of competence in the framework a record of aspects utilised by each interviewee was recorded as follows:

This table shows any aspects which were not noted by the individual students. In each case where an aspect was missed the researcher asked if interviewees wished to add information, only one person declined when asked.

Table 7.2 Non-noted Aspects prompted for by researcher.

	Missed aspects by interviewee	Researcher prompted and interviewee related info for missed aspects
University Students		
Student 1 (male)	Aesthetic, lingual, juridical	Info added
Student 2 (male)	Sensitive, aesthetic, ethical	Info added
Student 3 (male)	all post-biotic aspects noted	
Student 4 (male)	all post-biotic aspects noted	
Student 5 (female)	aesthetic , lingual	Info added
Student 6 (male)	all post-biotic aspects noted	
Student 7 (male)	Juridical	Info added
Student 8 (male)	all post-biotic aspects noted	
Student 9 (female)	all post-biotic aspects	

	noted	
Student 10(female)	all post-biotic aspects noted	
Student 11(female)	all post-biotic aspects noted	
Student 12(male)	all post-biotic aspects noted	
College Students		
Student 13(female)	all post-biotic aspects noted	
Student 14 (female)	all post-biotic aspects noted	
Student 15 (male)	Lingual, analytic	Nothing further added.
Student 16 (female)	all post-biotic aspects noted	
Student 17 (female)	all post-biotic aspects noted	
Student 18 (female)	all post-biotic aspects noted	
Student 19 (female)	all post-biotic aspects noted	
Student 20 (female)	all post-biotic aspects noted	
Student 21 (female)	all post-biotic aspects noted	
Student 22 (female)	all post-biotic aspects noted	
Student 23 (female)	all post-biotic aspects noted	
Student 24 (female)	all post-biotic aspects noted	
Student 25 (female)	all post-biotic aspects noted	
University Students		
Student 26 (male)	Juridical	Info added
Student 27 (male)	Lingual, juridical, ethical	Info added
Student 28 (male)	Juridical	Info added
Student 29 (male)	all post-biotic aspects noted	

It can be seen from the table above that 21, that is 72% of respondents utilised each post-biotic aspect and from the remaining 8 interviewees, 7 simply added the information without any difficulty. Therefore with very little prompting of the remaining interviewees the eventual total of respondents who utilised all the post- biotic aspects were 28 out of 29 or 96%. It was interesting to see how easily the aspects were considered once the interviewees became comfortable with the

format. This could also be seen in their attitude, conversational style and body language. A representation of the number of students who noted all ten aspects and those who noted slightly less is shown in the following graph.

Figure 7.1 - Total number of Aspects noted by each student.
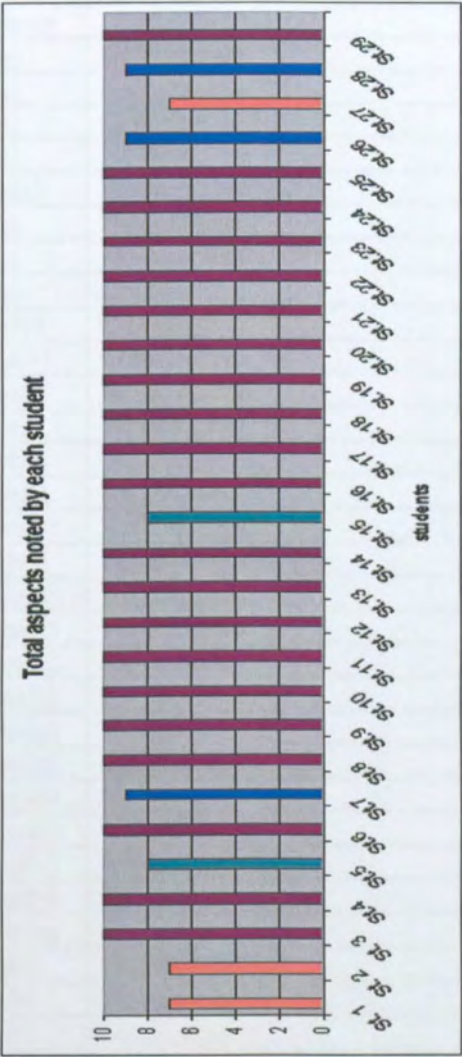
In relation to the utilisation of every aspect is whether or not the interviewees considered that anything had been omitted. In order to explore this, the researcher assessed how many interviewees, when they had finished the interview, added additional information without relating it to the aspects. The following table displays the result.

Table 7.3 Interviewee comments (Non-Aspectual)

	Interviewee commented or not
University Students	
Student 1 (male)	No comment
Student 2 (male)	No comment
Student 3 (male)	Comments.
Student 4 (male)	No comment
Student 5 (female)	No comment
Student 6 (male)	No comment
Student 7 (male)	No comment
Student 8 (male)	Comments
Student 9 (female)	Comments
Student 10(female)	Comments
Student 11(female)	No comment
Student 12(male)	No comment
College Students	
Student 13(female)	No comment
Student 14 (female)	No comment
Student 15 (male)	No comment
Student 16 (female)	No comment
Student 17 (female)	No comment
Student 18 (female)	No comment
Student 19 (female)	No comment
Student 20 (female)	No comment
Student 21 (female)	No comment
Student 22 (female)	No comment
Student 23 (female)	No comment
Student 24 (female)	No comment
Student 25 (female)	No comment
University Students	
Student 26 (male)	No comment
Student 27 (male)	No comment
Student 28 (male)	No comment
Student 29 (male)	No comment

It can be seen that the vast majority made no further comments. Although it can not be certain, it suggests that the majority of interviewees had nothing further to add because the framework had allowed them to consider most of the issues which are relevant to them.

7.2.3 An emancipatory style of interview technique

The next consideration of the framework was whether or not it could be seen as an encouraging/emancipatory style of interview technique at some level. In order to explore this, the researcher looked at the final/leaving comments of the interviewees. While all the interviewees were very generous in giving their time and overall were happy with the interview process some final comments show that the process was perceived as useful for the individual as well as the researcher:

> *"This [interview] process is helping me as well. Because I think the tutors don't care. They don't ask about our needs. I think there should be somebody to ask about all these aspects... They should make time to speak to you... I think they fail a bit in that. I'm not complaining because quality is good. Module stuff is good but personal is not... That's all, this has been good for me to talk".*
> (Student reference. 3)

> *"It's good to be able to say these things to someone..."*
> (Student reference 4)

> *"It's (the interview process) been useful for me. Helps me to think things out"*(Student reference. 8)

> *"...it's dead good talking it over because it just goes round in your head".*
> (Student reference 9)

> *"...things should be better for mature students. Maybe they should talk about stuff like this".* (Student reference 10)

> *"Thank you, it's been interesting for me..."* (Student reference 11)

> *"I'm glad to do this. I have a lot to do and this is a way to think".*
> (Student reference 12)

> *"It (the interview process) makes you realise you're on track".*
> (Student reference 16)

> *"It (the interview process) gets you thinking".* (Student reference 21)

"That's alright...It's (the interview process) looking at things in a different way, isn't it". (Student reference 23)

These comments give some insight into the situation and how the framework encouraged the interviewees to consider or re-consider important issues.

7.3 Aspectual meanings - incorrect meanings:

In the previous chapter (Methodology for this Study), the issue of students placing information in incorrect aspects was explored. However, there is another area of incorrect meanings which must be acknowledged by the researcher. Within the analysis of the interviews it became apparent that when presenting the aspects the researcher had unintentionally misinterpreted some definitions. From this flawed understanding the analytic aspect was represented by the words 'planning and focus'. While focus is correct, planning is not in line with the researcher's doctoral supervisor's understanding of aspectual meanings. However, the element of planning would be placed in the historical (formative) aspect which is the next aspect and therefore closely connected. The ethical aspect was represented by generous attitude and justification. While generous attitude is correct, justification is not in line with the researcher's doctoral supervisor's understanding of aspectual meanings. Due to this misinterpretation the researcher traced the affected information in order to provide a balanced view of the occurrence.

7.3.1 Analytic Aspect

When the college students were asked about the analytic aspect which was presented with the keywords 'planning and focus' there were three types of response:

1. The researcher asked about planning and focus. In response the interviewee only naturally answered in terms of planning. The researcher then specifically asked about focus and while this was answered the comments actually related to extended planning issues.

2. The researcher asked about planning and focus. In response the interviewee answered in terms of planning for the majority. Although the word focus was used on one occasion it was related to planning elements.

3. The researcher asked about planning and focus. In response the interviewee commented only on elements of planning.

In view of these three types of responses, the student comments were recorded as follows:

Student no 13 gave response 1

Student no 14 gave response 1

Student no 15 gave response 3

Student no 16 gave response 1

Student no 17 gave response 3

Student no 18 – gave response 1

Student no 19 gave response 1

Student no 20 gave response 2

Student no 21 gave response 3

Student no 22 gave response 1

Student no 23 gave response 2

Student no 24 gave response 2

Student no 25 gave response 1

From 13 college interviews 7 gave response type 1, 3 gave response type 2 and 3 gave response type 3.

While some misrepresentation of the analytic aspect took place it can be seen from the transcripts that interviewees may well have considered planning and focus as a single element. This is not so difficult to accept as we naturally focus and make distinctions in order to make plans. In considering the related meanings of the aspects it should be noted that while planning should not have been strictly placed in the analytic aspect it does belong in the historic (formative) aspect therefore providing a close relationship. The types of response show that the interviewees still managed to give information relating to the aspect and that the process separates distinct spheres of meaning while allowing what appears to be the natural relationship to the next aspect. Whether the interviewees related planning information and avoided strictly speaking about focus because planning was mentioned first or because the suite of aspects guides our instincts and innately suggests that focus and planning are such close neighbours that an innate relationship can be made in the discussion, is difficult to say. It could be that by mistakenly placing a false element in the question interviewees were forced to make an instinctual choice of how to answer. While the style of answers differed slightly over the three types it can still be seen that each interviewee provided information about the element of planning but transcripts suggest that they focused on various experiences in order to plan. There is also a line of thought which places both analysis and synthesis in the analytic aspect; this line of thought might also find planning to be analytic. Therefore there is at least one further debate to be had about the strict representation of meaning in each aspect. But here and throughout this work the concentration has been placed on the instinctual use of aspects by the interviewees.

7.3.2 Ethical Aspect

When the college students were asked about generous attitude and justification there were three types of response:

1. The researcher asked about generous attitude and justification. In response the interviewee only naturally answered in terms of generous attitude. The researcher then specifically asked about justification and

while this was answered the comments actually related to the generous attitude of others or lack of same.

2. The researcher asked about generous attitude and justification. In response the interviewee only naturally answered in terms of generous attitude. The researcher then specifically asked about justification and this was answered simply as no need for justification.

3. The researcher asked about generous attitude and justification. In response the interviewee answered in terms of both, but the comments actually related to the generous attitude of others or lack of same.

Student no 13 gave response 1

Student no 14 gave response 3

Student no 15 gave response 2

Student no 16 gave response 2

Student no 17 gave response 1

Student no 18 gave response 2

Student no 19 gave response 3

Student no 20 gave response 1

Student no 21 gave response 3

Student no 22 gave response 3

Student no 23 gave response 1

Student no 24 gave response 1 & 2

Student no 25 gave response 1

From 13 college interviews 5 gave response type 1, 3 gave response type 2, 4 gave response type 3 and 1 gave a mixed response of types 1 and 2.

While some misrepresentation of the ethical aspect took place it can be seen from the types of response that the interviewees still managed to give information relating to the relevant part of the aspect, that being generous attitude. In addition when information was specifically asked for in relation to justification the answers were actually concerned with the generous attitude or the lack of in others. Again we see that the process still separates distinct spheres of meaning. But it should be noted that justification which would actually be placed in the juridical aspect is the previous aspect which leads to the ethical aspect once again showing a relationship of meaning. Whether the interviewees related to the first element of generous attitude and were less active in speaking about justification because generous attitude was mentioned first or because the suite of aspects guides our instincts and innately suggests that justification would not be as relevant in this part of the discussion can not be stated absolutely. Once again it could be argued that when mistakenly placing a false element in the presentation of aspects, interviewees were allowed to make an instinctual choice of how to answer. As with the previously noted aspect the style of answers differed slightly over three types but it can still be seen that each interviewee provided information about the relevant element of 'generous attitude'.

7.4 The 'correct' Aspect.

In addition to the misinterpretation presented by the researcher and as previously mentioned, people do not always place information in the 'correct' aspects, or in the aspects which the researcher would have expected them to correspond various parts of information to. However, the format has appeared to give the interviewees the freedom to speak about both general and personal issues and in some cases provided prompts for their thoughts. This can be seen mainly through body language when interviewees glance at the list, read for a few seconds and

then continue with further information, or point at a note made on the paper and then add to that line of enquiry. Therefore the issue of strict correctness is not a problem area as the framework is explored here for its wide-ranging potential to gather information, which is shown to be the case whether the aspects are communicated via the M.A.K.E or M.A.I.T models. All aspects are commented on, aspirations and potentialities arise alongside many other elements of the student's everyday lives and experiences.

7.5 Conclusion

In Dooyeweerd's Theory of Aspects he claimed that the kernel meanings of the aspects are to be grasped with the intuition, rather than theoretically defined and this appears to be correct; their meanings provided via aspectual names or keywords have proved useful when interviewing those experienced in research procedures and for those who have no experience of such matters. It is encouraging to see that two groups aided in slightly different ways were able to make use of the aspectual suite to provide a wide range of information about their experiences without being dictated to through a list of researcher-defined questions.

When considering the use of M.A.K.E and M.A.I.T as a bridge to the aspectual suite, it can be seen that both provided a format where the interviewees were comfortable in assigning information to the aspects which is a great strength when attempting to gain a wide range of information. However, this does not diminish the importance of detail, the opposite in fact occurs, for as the interviewee considers the aspect and why a certain point of information is being placed there, they reflect further, this allowing them to provide a richer picture of their experiences.

Chapter Eight

Research Findings

"As long as people conduct interviews, the problem of selective perception, jumping to conclusions, forgetting and other forms of bias will persist. Therefore, the more fruitful alternative is to create an interview which minimizes the effects of human frailties. In short, we must build a better interview". (Goodale 1982, p.33, 34)

8.1   Introduction

Leading on from the analysis of the data and the Suite of Aspects (which underlies the interview formats), this chapter presents the research findings. The assessment of the aspectual interview process is that of determining whether or not it met the stated research criteria, as listed below. The data which was gathered via these interviews is a hermeneutic process of assessing and reassessing transcripts to observe the repetition factor which suggests emergent generalisations as categories. In addition theoretical saturation in regard to the categories and aspects is considered.

8.2   The assessment of the interviews

This two-way social process of practicing interviews and researching the interview framework is referenced here as P1 and P2. The Person 1 (P1) reference for the activities carried out as interviewer and Person 2 (P2) reference for activities carried out as researcher. The P1 and P2 references are made use of in this chapter in order to specify findings from the interviewer and researcher perspective.

The criteria for assessing the data is related to whether or not it fulfils the points of particular importance in this research, which is defined as follows and was previously stated in The Study - chapter 5:

> 1. Mature students studying I.T.
>
> (This is addressed by considering what was discovered about mature students studying I.T. and takes the form of P1 findings from the interviewer's perspective).

2. Ways of finding out what is important to mature students.

(This is a consideration of categories and reflections on everyday life issues. This will take the form of P1 findings from the interviewer's perspective).

3. The notion of 'Aspects' which will aid this exploratory study.

(This is a consideration of how useful the aspects were in the production of this data, and therefore provides P2 findings from the researcher's perspective).

It will be assessed whether generalisations emerged in line with the original assumptions of the researcher which provided the original concept for this work. That is, mature students in I.T. are not extensively researched, it is possible to find out what is important to them (including their aspirations and potentialities) through their commentary rather than structured questions and that I.T. is under-rated by those studying I.T. as a compulsory subject.

The Suite of Aspects itself, as the framework or structure underlying both the M.A.K.E. and M.A.I.T interview models is assessed by the following criteria, as stated previously in The Study – chapter 5:

1. Did the model provide generalisations?
   (P1 findings from the perspective of the interviewer).

2. Do the generalisations confirm the research focus? (If this is the case, then the theory 'fits'/is valid for the purpose).
   (P1 findings from the perspective of the interviewer).

The two points noted above are necessary in the assessment of the model in order to fulfil the criteria of successful exploratory research. "Exploration...emphasizes development of theory from data". (Stebbins 2001, p.5)

3. How did the model aid the collection of wide-ranging information and reflections of everyday life issues? (This will provide P2 findings from the researcher's perspective).

4. What did placing information in the aspects achieve? (This will provide P2 findings from the researcher's perspective).

5. Can the aspectual suite be credited as a non-dominant interview style?

   This is answered in respect of the points stated in the Approach to Research – chapter 3:

   - Giving true credence of the experience and perspectives of the interviewees.
   - Considering aspirations and potentialities 'what is important' to the interviewees.
   - Credibility of the everyday life-world.
   - Empowerment of interviewees.

(These will provide P2 findings from the researcher's perspective)

In addition to the previously stated points of criteria (as in the Approaches to Research – chapter 3), there will be an assessment of other qualities of the underlying aspectual format such as:

   - Potential as reference aid for researcher and interviewee (checklist/aide memoire)
   - Tracking potential or paper trail to aid the research process.
   - Theoretical Saturation.

(These will provide P2 findings from the researcher's perspective)

The following sections provide an exploration of the data and the aspectual framework respectively.

8.3   How the findings are represented in regard to the data

In regard to the data, generalisations emerged in the form of mature student issues, aspirations and potentialities of the interviewees, comments about I.T. and a range of other comments which did not present themselves as generalisations but were kept on record nonetheless, due to the researcher's wish not to ignore information that presented itself in lesser terms than a general category.

Therefore, such lesser repeated elements were placed in the category tagged as 'Other'.

The emergence of these generalisations shows the relevance of the underlying theory in this instance, as the emergent generalisations ground the theory in the data. This is important in assessing whether or not the aspectual suite is suited to interviewing mature students. This purpose is underlined by Glaser and Strauss (1968, p. 3): "...*generating grounded theory is a way of arriving at a theory suited to its supposed uses*". The relationship between this work and grounded theory is discussed in the following chapter. The researcher's conception of the way in which this generation occurs here is demonstrated in the following diagram.

Figure 8.1 Grounding the theory through the data.
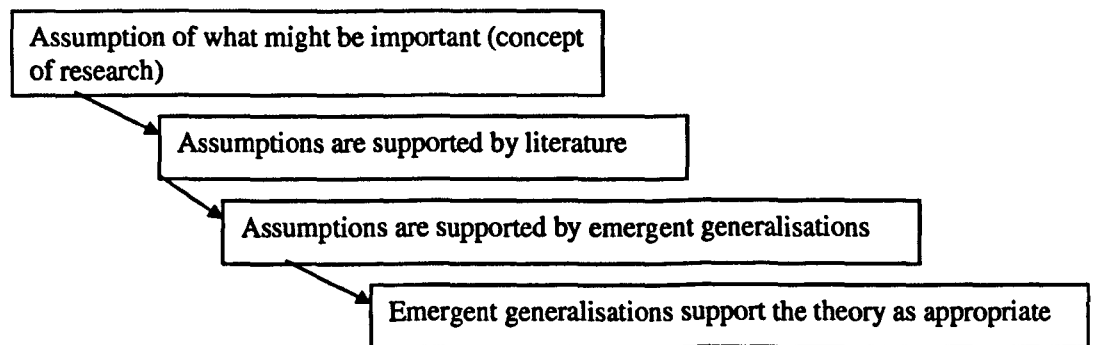
However, while the emergent generalisations are relevant to establishing the usefulness of the aspects as an appropriate interview structure, the aim of this work as exploratory research is to provide a "*true impression of the phenomenon under study*" (Stebbins 2001, p 25) via the aspects as an interview framework.

The hermeneutic process of considering the interviewee perspective and the researcher's perspective is how the information is derived here. Hermeneutics is in essence interpretation and the researcher believes that meaning arises out of social situations. However the importance of any generalisations is that they emerge naturally, when they are seen to confirm the focus of the research the theory is grounded.

The first point assessed here for its finding is - Mature students studying I.T. This will be addressed by considering what was discovered about mature students firstly and then more specifically, what was discovered about mature students studying I.T. In addition, differing elements which appear between mature student information in the two interview models will be noted.

While the P1 and P2 referencing system has been noted as a simple process of each area containing only one type of finding, this is not strictly true. The interlacing of both practice and research elements in this work provide that no definite split can be afforded. Therefore, the researcher makes note of the P1 and P2 references throughout the following chapter as P1 areas notifying the significance of interviewer relevance and P2 as researcher relevance. It is hoped that these simple references will aid the reader in recognising when the related information is either a predominantly interviewer or researcher activity and appreciate them as different types of activities though equally valued as required parts of this research.

8.4   Mature student issues (predominantly of P1 importance with supporting P2 information)

(P2)-As all the interviewees were mature students, issues that pertain to mature students were varied. However, there was quite a difference in the spread of information between the aspects as related by the two groups. That is, the M.A.K.E. interviews (university students) provided comments relating to mature student issues in nine out of ten aspects, leaving only the aesthetic aspect without reference to mature student issues. Whereas the M.A.I.T. interviews (college students) provided comments related to mature student issues in only three of the ten aspects, which on first sight is surprising. (P1)-However, it is obvious that they consider their environment as more conducive in regard to being a mature student. This certainly can be observed via some of the disparaging comments regarding the mature student experience related by the students in Higher Education and the favourable comments made about the mature student experience in Further Education. While favourable comments were also made by the university students there were comparative comments made by university

students who had also spent time in Further Education and expressed fonder remarks of that time than their time at university.

(P2)-There are three aspects which the M.A.I.T. (college) interview students particularly related to mature student issues (lingual, juridical and ethical), the highest at 36% is the lingual aspect. (P1)-Their comments show that this relates to their experience of being in a designated mature student group, obvious confidence is derived from the fact that they feel a shared membership or status with their fellow students. They feel confident and more able to speak out because they are in a group of mature students. Their comments also relate to a belief in being treated 'better' because they are mature students and there is a noted ease of communication within the group which is related to life experience. They also suggest that greater understanding of the study area is helped by being in a group of only mature students because they are "*all there to work*". In addition, they note that it is easier to study in a group of mature students because they all "*get on*" with their work.

(P2)-The juridical and ethical aspects in the M.A.I.T (college) interviews show levels of 25% and 15% respectively in regard to mature student issues commented on by the college students.   The juridical aspect leads to considerations of rights and responsibilities.

(P1)-Respect for the experience of being a mature student and therefore having life experience is the overwhelming point made in these comments. In the ethical aspect they spoke of the generosity of their fellow students which they believe is common because they understand each others' lifestyles. However, it must be said that mature students' issues per se do not appear to weigh heavily on the minds of the college students which conveys their ease within a positive learning environment where they appear to be experiencing the benefits of courses which are specific to mature students.

(P1)-The M.A.K.E. interviews (university students) paint quite a different picture when commenting on mature student issues. They place comments in this area which relate to all except one aspect. The range of comments shows among other

things that due to being in a mixed environment of mature and younger adults, the mature students compare themselves to a greater extent with their younger counterparts. Issues of behaviour of the younger adult learners are noted. Worries about ageism in the workplace which they will re-enter abound and practical fears such as not knowing how to approach exams or essay writing are stated.

(P1/P2)-The comments regarding mature student issues through the M.A.K.E model are present in the sensitive, analytic, historic/formative, lingual, social, economic, juridical, ethical and pistic aspects. The comments in the sensitive aspect provide some insight into the way mature students look unfavourably on the behaviour of the younger students, especially when this is seen to be a disruptive influence which effects the learning situation. In a practical sense, this is noted as the level of noise in lectures. Mature students also believe that they are more realistic than younger students. The analytic aspect provides statements about planning to have a different career and fears relating to age and re-entering the job market. Because of their work experience, which may be varied, mature students often can not see the relevance of theoretical work and that point is made note of in this aspect. The historic/formative aspect again shows the worries about re-entering the job market via thoughts that there should be more help to get mature students into work. Mature students are said to have a different attitude. The comments in the lingual aspect suggest that learning is more difficult for older students and that information from lectures is difficult to appreciate from a practical/experiential view. The comments in the social aspect show how experience and responsibilities have relevance to mature students and again the worries about re-entering work are appropriate here. In addition, it is stated that there should be a greater commitment to providing a learning environment conducive to mature students. In the economic aspect issues of the value of time and expenses are noted, along with needing guidance when returning to the workplace. The juridical aspect again promotes age as a worrying issue along with not wasting time. There are disparaging remarks which show the void that exists between younger and mature students. Again, the need for a mature student environment is pointed to and considerations of the upcoming ageism legislation as potentially impossible to implement. The ethical aspect shows a different side of mature student thinking when it is stated that

they don't just want any job, they want to make a difference in society. In addition they note that they have to justify their return to education. In regard to the pistic aspect, mature student issues related in the pistic aspect show that they are committed to study and returning to work, but also committed to their families. There is a comment made that a mature student only group would be appropriate. However on the negative side, it is suggested that there is no commitment and a lack of support for mature student learning.

8.5 Findings in respect of mature student issues (predominantly of P1 importance with supporting P2 information)

(P2)-The overall findings from an assessment of mature student issues presented through the M.A.K.E. and M.A.I.T. models are a greater range of difficulties and grievances are given by the university students than the college students. Here we might suggest that the M.A.K.E. model is more adept at gaining information about mature student issues than the M.A.I.T model.

(P1)-However, the strength of opinion derived from the variety of comment obliges a consideration of context. The experiences attributed by the interviewees provide a picture of very different learning experiences in Further and Higher Education. In addition to the obvious sympathetic environment in further education which includes the separate mature student learning environment, there is the verbal comparison made by two of the university students which provides a retrospective view of their time in further education which was far more conducive than that of the university experience. This reinforces the view that the mature student learning environment provided by further education is more encouraging, in their view.

(P2)-In consideration of the model in this instance, it should be noted that while a greater range of mature student comments occurred in the M.A.K.E. model (which may be linked to educational context of the group), still the M.A.I.T. model provided mature student comments for almost a third of the aspects, which is notable considering the obviously conducive environment which is likely to dictate that there are far fewer issues or grievances.

8.6 Mature students and I.T. (predominantly of P1 importance with supporting P2 information)

(P2)-Specific points about information technology were recorded from both groups. However, the number and range of comments was far greater in the university students group. The M.A.K.E. interviewees (university students) placed comments in regard to I.T. in nine out of ten aspects. As is the case with mature student issues, only the aesthetic aspect failed to gain comments in the category of I.T. The earlier aspects from sensitive to economic see the highest level of I.T. comments, with the economic aspects having the highest level at 22%. The later aspects from juridical to pistic have a low range of 4-6%.

(P1/P2)-Within the sensitive aspect comments relating to I.T. promote that studying I.T. is a favourable experience and expression of whether or not to work in I.T. after graduation, along with not always feeling confident about their knowledge of I.T. Comments in the analytic aspect show the strength of feeling about achieving a 'good' I.T. qualification and some previous knowledge and experience of I.T. In addition, the lack of confidence in I.T. knowledge is again noted. The historic/formative aspect shows the relationship with I.T. and previous experience which is noted as providing confidence. The lingual aspect relates comments based on the communicative element of understanding the technology and learning about the usefulness of computers. The social element of I.T. is portrayed by its usefulness in the job market, having an interest in computers and organisations and the potential to interact with their children. The economic aspect provides a strong message about I.T. jobs as available and well paid. The juridical aspect suggests the importance of data security in I.T. and the ethical aspect implies the necessity of a good understanding of I.T. The final, pistic aspect simply suggests that the topic area of I.T. fitted the specification of where an individual "wanted to go".

(P1)-The comments made by the interviewees show the relationship of this category in their everyday lives, such as the relationship between I.T. and family life, along with the importance of I.T. to their futures.

(P1)-The M.A.I.T. (college students) interviews provide a much lesser aspectual range with comments relating to I.T. in only four aspects which run consecutively from sensitive to lingual. The comments range from I.T. being a compulsory part of the course, to recognising the I.T. component as generally useful and of use in the everyday element of interacting with children via helping them with I.T. homework. However, the greater use of I.T. as a professional necessity does not appear to have occurred to this group of students, and the use of I.T. to aid their studies is limited.

8.7   Findings in regard to mature students and I.T. (predominantly of P1 importance with supporting P2 information)

(P2)-While I.T. comments via the M.A.K.E. model show a greater spread throughout the aspectual suite, there are very low levels in some aspects, and as with the previous (mature student issues) section a notable level is seen in the M.A.I.T model, that is almost half of the aspects had I.T. comments related to them.

Given that the university (M.A.K.E) group were likely to provide a greater range of comments because they are studying I.T./I.S. as a main discipline it is reassuring to note that a reasonable range of I.T. comments were made by the college (M.A.I.T) group.   Once again, on first glance it may seem that the M.A.K.E. model is more adept at gaining information when placed alongside the M.A.I.T model, however it must be said that the greater level of I.T. comments would be expected from the university interviewees and the fact that the M.A.I.T. model achieved almost half the range of responses from a group who do not study I.T. as a main discipline, shows the strength rather than weakness of the M.A.I.T model.

(P1)-While I.T. may sometimes be viewed as an appendage, it is also a part of social interaction for many. Concerns that mature students have about not being able to use I.T., help their children with homework or converse about computers have been observed overall in the data. In addition to this, age can be a social divider, mature students worry about being excluded from work if ageism is a

factor in the selection process, not being computer literate irks them as it seems to underline the age difference.

8.8 Ways of finding out what is important to mature students – aspirations/potentialities (predominantly of P1 importance with supporting P2 information)

This section is a consideration of aspirations, potentialities and reflections on everyday life issues.

(P1/P2)-Overall the level of comments made in regard to aspirations and potentialities is extremely high. That is, 41% of comments in the M.A.K.E. model and 47% of comments in the M.A.I.T. model. In reference to the M.A.K.E. interviews aspirations/potentialities statements were placed in every aspect by the interviewees. While the respondents to the M.A.I.T. model placed aspirations/potentialities comments in all aspects, except the economic and ethical aspects. However, in reference to the M.A.I.T. model 100% of the comments attributed to the pistic aspect referenced aspirations/potentialities. The statements range from wishing to do well in education, hopes of getting a good job after graduation and optimism about various levels of achievement, to wanting to have a profession and make their family proud. There are similar comments provided in both interview models the main difference being of individual context, that is, the mature students in further education are focusing their aspirations towards gaining a place at university and the students in higher education are focused on either a higher degree or re-entering the workplace.

(P1)-While it can be seen that work and the expectations which go along with having a 'good job' are of importance to mature students, for many these aspirations are connected to providing for their family, not just financially but by setting an example to their children. While specific consideration of children and family life are greater in the M.A.I.T. model, the researcher suggests that this may be due to gender as the university student group was made-up of 75% male and 25% female, while the college group was 92.3% female and 7.7% male. That is not to say that family and children are less important to the male respondents, simply that the researcher suggests that this may be a contributory factor.

8.9 Findings in regard to - ways of finding out what is important to mature students (predominantly of P1 importance with supporting P2 information)

(P1/P2)-This is the category which can most be defined as having the same applicability to both groups given the differences in the two groups, that being further education and higher education, a group that study I.T. specifically and a group that study I.T. as part of an access course and differing ratios of male to female balance. Here for the first time the M.A.I.T. model gains a higher response rate than that of the M.A.K.E. model, though it must be noted that the aspectual spread is less as ten out of ten had aspiration comments placed in them via the M.A.K.E. model, and eight out of ten in the M.A.I.T. model. Therefore, while it is found that the M.A.K.E. model gains a greater aspectual spread of aspiration comments, the higher level of response is gained by the M.A.I.T model. The differences which may alter the perspective of this result are less dominant here as it is difficult to argue that those in further and higher education would have more or less aspirations. Therefore, the M.A.I.T model is noted here for its particular strength in gaining a higher level of responses for comments regarding aspirations.

(P1)-The aspectual interviews in both models have resulted in a wide range of statements regarding the aspirations and potentialities of mature students. What can be seen by the level of responses in this category is the importance of these aspirations when considering why mature students would make the decision to return to education and what drives them to continue. In addition, their frame of reference is very much in everyday life rather than being situated in theoretical thought (table 7.1). The overwhelming majority of references specifically regarded as theoretical or everyday life, show that mature students relate to everyday life elements far more than theoretical concepts.

8.10 The notion of 'Aspects' to aid this exploratory study. (predominantly of P2 importance with supporting P1 information)

This section is a consideration of how useful the aspects were in the production of this data, and is written strictly from the researcher's perspective.

(P1)-As was previously noted, the researcher had informal conversations with mature students which lead to the belief that structured questions would not cover all the elements of mature student life. While it is not suggested that complete coverage has been achieved here, what has been said is at the behest of the interviewees and not planned by the researcher.

(P2)-The aspectual suite allowed the interviewees to put forward their own point of view and place these statements in whichever aspects they believed to be most meaningful. In doing so they not only made comments but considered what those comments meant to them and posited them accordingly. This form of self-reflection in qualifying our own statements is not something that generally occurs in interviews and some of the final comments made by the interviewees of both models suggest that they found the experience useful. As a work of exploration, the aspects have allowed the interviewees a level of freedom away from defined research questions and provided a format for the researcher to gather information without presuming what is important or relevant to the students.

8.11 Findings in regard to - The notion of 'Aspects' to aid this exploratory study (predominantly of P2 importance with supporting P1 information)

This section provides findings based on an overall view of the data.

(P1)-As has been previously explained, there are differences between the two groups interviewed for this study. However, even given their differences, there are a range of commonalities which can be seen in the data, in the way that comments are related to the aspectual suite. For example, the spread of categories in the first four aspects differ between the two models to the greatest extent because of the lack of mature student issues suggested as relevant by the college students.

(P2)-Moving on from the first four aspects, a comparison of both models displays similar patterns in categories. It has to be said that aspectually the social and economic patterns are rather different between the two models. Although, the social aspect shows aspirations as dominant in both models and the economic aspect shows 'other' as dominant in both models. The aesthetic pattern is rather

different in relation to percentage segments. But both models had only the same two categories attributed here which shows shared meanings in emergent generalisations. Therefore, while the level of comments differed, the judgement of meaning is comparable. The final three aspects which are juridical, ethical and pistic show the most differentiation. However, aspirations is the highest and second highest category for the juridical aspect in the M.A.I.T.and M.A.K.E models respectively.

(P2)-In considering the categories, the mature student issues display continuity between the interview models, except in the case of the lingual aspect but even here they both show an increase from the previous aspect. The aesthetic aspect which shows a plunge to the lowest level in both models and the following juridical aspect which rises considerably away from the previous aspect level for both models, again shows some level of relationship. Therefore, even when, as in this instance there seems to be little comparison, actually just under a third of the aspectual list shows that both models hold some comparative points.

(P2)-In the case of the I.T. category, on first sight there is little to compare between the M.A.K.E. and M.A.I.T. models. However, on closer inspection it can be seen that the first four aspects show a certain pattern of similarity.

8.12 How the findings are represented in regard to the Aspectual Framework (predominantly of P2 importance with supporting P1 information)

The aspectual framework as the structure underlying the interviews is assessed in accordance with the following nine points.

8.12.1 Did the model provide a level of generalisations?

(P2)-It has been found that emergent generalisation in the data surfaced as categories, but not simply from the researcher's statements about the aspects, which may be argued as having been predefined. The interviewees provided information through the aspects which were later assessed as categories due to levels of repetition. Therefore the aspectual model provided a wide-ranging format which allowed the interviewees to suggest what is important from their

own point of view. In relation to the categories it was found that the aspirations/potentialities category was that which gained the greatest range of aspectual reference overall (via the M.A.K.E. model) and the greatest level of response overall (via the M.A.I.T model). Therefore, the mature student issues and I.T. categories can only be viewed as less successful. But when considered in terms of aspectual range the M.A.K.E model provided a nine out of ten aspectual response in mature student issues and I.T. Unfortunately, the M.A.I.T model gained a lesser aspectual range of responses in these two categories, but when placed in context to the educational environment this allows a deeper understanding of how this may have been expected.

8.12.2 Do the generalisations confirm the research focus?

(P2)-At the beginning of the research process the researcher hoped to explore the experiences of mature students who study I.T./I.S. From further consideration arose the elements of aspirations and potentialities, how I.T. played a part in the interviewees' education and everyday lives. However, the researcher did not stipulate specific questions that would lead to this information. The findings show that a variety of comments emerged and life experiences were presented by the interviewees. It can be seen that the aspects provided a framework which was related to by each individual respondent. The categories surfaced from the content provided by the interviewees which portrays the aspects as a guiding rather than dictating process. This was found to be a useful structure which allowed experiences to be related to the initial purpose of this study and therefore showing validity for this purpose.

As the two elements above have been fulfilled, the aspectual framework is shown to be a successful aid to exploratory research.

8.12.3 How did the model aid the collection of wide-ranging information and reflections of everyday life issues? (Researcher's perspective)

(P2)-The exploratory use of the aspectual suite found that 21 of the 29 interviews (not including the pilot interviews), provided information in all ten aspects (see table 7.2). Given that the interviewees were relating their statements to meanings represented in the aspects, it can be said that a wide range of information and

meanings are presented by considering the aspectual suite. A retrospective view of the interviewees' information shows that they talk about their educational experience and within that the everyday life issues which influence it. They being: part-time work, financial worries, opportunities to emigrate, family commitment, future work prospects, concerns about age and ageism, justifying a return to education, and many more elements. The researcher believes that a set of structured questions would not have covered all these eventualities. Nor would the interviewees have a chance to comment about anything they wish to, or be naturally inclined to consider what meaning is carried in the statements they make, which is a part of the self-reflection they carry out when appropriating a comment within one or more aspects.

8.12.4 What did placing information in the Aspects achieve? (Researcher's perspective)

(P2/P1)-Ordinarily, in the interview situation, a question is asked and an answer is given. Then they move on to the next question, which may or may not be related to the previous question or the interviewee's answer. However, in this case, the interviewees were provided with a statement of the research area, from this came whatever the respondents choose to impart along with their consideration of where their comments would be placed in respect of the aspects. The researcher found that this promoted a type of self-reflection about what they had said and the meaning they attribute to it. For instance, a statement about providing for a family can carry the meaning of attaining extra money which would highlight the economic aspect or providing a role model image that encourages other family members to engage positively with education which could evoke the pistic aspect of commitment and or social aspect of relationships. This is the form of self-reflection on meaning of statements which each interviewee progressed through in order to denote aspects and therefore qualify the meanings of the information given. Because of this procedure we can see that the comments categorised as aspirations/potentialities have their meanings most often attributed to the sensitive, analytic, historic/formative as a sequential group of the first three aspects. In addition to this, across the two interview models the pistic aspect showed high levels of aspirations/potentialities comments. Therefore the noted aspects may be particularly useful areas to

concentrate on when considering the aspirations of mature students, whether or not this balances with the views of younger adult learners would be interesting, but would necessitate a comparative study, which this is not, but it would lend itself to further research of a comparative type. If the interviewees had not been asked to attribute their statements to the aspects, the meanings which underlie the statements and critical self-reflection by the interviewees of their own comments is unlikely to have occurred.

(P2)-In addition, it was found that placing information in the aspects provided the interviewees with a frame of reference about what they had already mentioned if they wanted to revert back to a previous comment. This also provided the researcher with a tracking system of sorts, noting what the interviewee had made reference to which was useful both in the interview situation and later in the period of analysis.

8.12.5   Can the Aspectual Suite be credited as a non-dominant interview style?
(This is answered in respect of the points stated in the Approach to Research Chapter and listed below)

8.12.5.1 Giving true credence of the experience and perspectives of the interviewees.
(P2)-The experiences of the interviewees were related by themselves in whatever way they chose to present them. Referencing the aspects allowed self-reflection which portrays the perspective of the interviewee via the meanings which they attribute to their own comments. The information supplied by the interviewees has not been changed by the researcher and the interviewees were all given the opportunity to comment and amend their transcripts if they felt they were wrong or unrepresentative of their thoughts, this did not occur. The researcher did not dictate which experiences were most important or useful to the study, therefore allowing the interviewees to judge the level and type of information which was supplied. In such respects the researcher proposes this format of interviewing as a non-dominant style.

8.12.5.2 Considering aspirations and potentialities/'what is important' to the interviewees.

(P2)-The researcher did not specifically ask for the aspirations and potentialities of the interviewees to be noted. But, it was found that such statements surfaced out of the related experiences of the students and the way in which they placed such information in the aspectual suite. Again, the researcher did not dictate that questions about aspirations and potentialities should be answered and in this way allowed the information to emerge, therefore suggesting the aspectual suites' potential as a non-dominant form of interviewing.

8.12.5.3 Credibility of the everyday life-world.

(P2/P1)-It has been found that much of the information given by the interviewees relates to their everyday lives. To this extent the researcher was pleased to find that even when there were some difficulties in implementation of interviews, that is, necessitating the use of the M.A.I.T. model for the college students, the interviewees were not intimidated to a point where they felt they should only talk about professional/theoretical elements, or in fact what they would assume they should say. It was found that interviewees in both models provided a majority of everyday life statements rather than theoretical themes as can be seen in table 7.1. Once again, the researcher proposes that this shows the interviewees were not dominated by the interview style and simply told their stories and experiences, and so referencing what is important to them rather than what they might judge as important to the research.

8.12.5.4 Empowerment of interviewees.

(P1)-The sections above have made note of the way in which the researcher has endeavoured to place control in the hands of the interviewee. In addition, the researcher is part of the same social group as the interviewees, which has previously been noted as conducive to the imparting of information (Kahn & Cannell 1957). After a simple statement at the beginning of each interview to outline the broad area of study, the interviewees were at liberty to provide whatever information they felt comfortable with and in any way they wished to present it. The researcher found that the interviewees assigned their comments to the aspectual list, although they were at liberty not to do so. Questions were not

used to demand specific answers and all information after the interview process was supplied to the interviewee so that they might decide whether or not it was a true representation of the interview. In addition, the interview environment was managed in a non-threatening manner as documented in the Methodology for this Study. The researcher found that this provided a level of comfort and empowerment, in so much as it is possible to do so. In regard to using the aspectual format, the interviewees were given freedom to make note of these or not, but in doing so, there are final comments which make note that it became a useful process of self-reflection.

8.13 Assessment of other qualities of the underlying Aspectual format

8.13.1 Potential as reference aid for researcher and interviewee (checklist/aide memoire)

(P2/P1)-The aspectual framework can be used as a checklist and this is a useful analytical process. It is a process which human beings engage in naturally as they break information into manageable parts and reconstruct it for the purpose of understanding. The normative (sensitive to pistic) aspects begin with the sensitive which leads to the analytic. This shows how the aspectual list itself denotes that the analytic process is an activity that presents itself early on in the minds of human beings. This suggests that the aspectual list recognises that an early part of human understanding lends itself toward the natural use of checklists, agendas, schedules, schemas, and all other formats that help us to structure our minds for the purpose of considering and evaluating information in general.

If we consider the aspects as a checklist we can appreciate that it provides a procedural process which guides the thinker along a path which begins with involuntary human needs through levels which are formed by the individual to higher thought and philosophical possibilities. However it is not just a checklist as it lends itself to freedom of thought. The aspects need not be considered consecutively, nor must they be allocated as single factors.

These are the researcher's considerations and it can be seen that other perspectives might be that the aspects are a checklist which needs very little

thought and denies interviewees the opportunity to consider other aspects. This is not the case as it can be seen in the research that interviewees speak on a range of ideas and experiences. In addition they are at liberty to add anything which they think is not apparent in the aspect. Dooyeweerd himself never claimed exclusivity or total completeness of the aspectual suite, and while considerations of incompleteness might be expressed, such perspectives are only available due to the type of wide-ranging thought which is encouraged by the aspectual process.

The researcher found that both she and the interviewees were using the aspectual suite as a tracking process. This aide-memoire aside, the aspectual suite was also used to aid reflection on the meaning of statements in order to place them aspectually and to consider what else was in mind. The researcher saw the potential of this form of paper trail for the interviewee and researcher alike as a structure of guidance and suggests that this could also be valuable when attempting to build questions in other areas of research, where that is necessary, that is, deductive rather than inductive research.

8.13.2 Theoretical saturation – categories and aspects.

(P2)-Glaser and Strauss (1968) explain theoretical saturation as a point at which no new additional data is being found. The researcher makes note here of theoretical saturation from a perspective of categories and aspects.

In the category of mature student issues it can be seen that a variety of comments made in the M.A.K.E. model were repeated in the M.A.I.T. model. These were comments about the institution attended, the mature student learning environment, the mature student educational experience, views in regard to younger adult learners, considerations of what individuals will do after leaving the course, the issue of age and family commitments. While these were commented on in different ways they had shared meaning across the two models and therefore theoretical saturation of this category was achieved.

In the category of mature students and I.T., once again a variety of comments was provided through both models and some such as studying I.T., the usefulness

of computers and wanting to interact with children by helping them with I.T. were seen to be repeated across each format. This provides a level of theoretical saturation for this category which was not expected. A greater level of theoretical saturation can be seen when each interview model is individually assessed. But the researcher was encouraged to see that a variety of elements crossed between each interview process even though this category could be seen as the most applicable to the university interviewees.

In the category of aspirations/potentialities, the greatest level of theoretical saturation is seen. This category could be posited as the one most evenly applicable to both groups. Across both models comments about achieving in education, hopes regarding work and professional life and wishing that their families will be proud of them, are in strong evidence. This category had the highest level of responses for both models and shows that theoretical saturation was achieved.

The final data category, that of 'other' can not be assessed as it is has a tag which allows additions ad infinitum and is therefore noted as a repository which allowed all data credence within the interview process rather than discounting and alienating information which did not show itself, at least at this stage to warrant a specific category.

In addition to the way in which theoretical saturation has been defined here via the categories, it is in the mind of the researcher that an individual form of saturation may be credited in the form of aspectual referencing. This is due to the way in which each individual decides what and how much is relevant to each aspect. The researcher believes that this type of individual assessment supports the process of saturation. However, this would be a point for further research.

8.14 Conclusion
(P2)-The Theory of Aspects denotes everyday meaning, knowledge and experience as on a par with scientific knowledge. The two interview models utilised for this research are based on the aspectual suite and this study explores the ability of the aspectual suite to gain information based on everyday meaning,

knowledge and experience. There were differing communication needs in relation to the two groups of students which entail two interview formats being employed, and therefore, even when the M.A.K.E. model is viewed as more able, it should be remembered that this interview format was not acceptable to the college students which created a position of fait accompli. Thus an alternative model had to be provided in relation to what was acceptable to this group. But, it should also be remembered that the structure of both formats is the aspectual suite.

Each group of interviewees provided a wide range of information, while it could be argued that this information would have emerged in a question and answer interview format, there are reasons for suggesting that it would not, such as the aspectual structure providing a guide toward self-reflection and predisposition toward consideration of meaning. In addition, the categories which surfaced were not specifically asked for through dictated questions and can therefore be posited as naturally emergent.

The categories were established because of the level of repetition within the comments made which allowed them to be represented as generalisations. The importance of such generalisations is that they emerge naturally to show the validity of that data. In this case the categories correspond in confirming the research focus, allowing the theory to be stipulated as grounded. However, this should later be tested via deductive research (Glaser & Strauss 1968).

The demands on the interview structure were to find what is important to mature students studying I.T., and through the range of information many important factors were noted, such as family life, aspirations to improve their own and their families lives, to do something worthwhile and to achieve educationally in a way they were not given the opportunity to earlier in life. These and many other important elements were noted. Aspirations/potentialities were particularly important and prevalent in the data. Here we see that aspectual analysis shows the vast interrelatedness which can easily be overlooked in our consideration of any given situation.

An additional demand of the interview structure was to allow the interviewees to provide their own personal commentary, rather than answering predefined research questions, the aspectual suite provided an environment to fulfil this. Due to what has been noted here the researcher states that the M.A.K.E. and M.A.I.T. models, which are in effect representatives of the aspectual suite, met the requirements of the interview process for the purposes of this study.

Chapter Nine

Discussion

9.1   Introduction

The elements which are particularly pertinent to this exploratory study are the stories of the mature students themselves, and the aspectual interview formats which were utilised here. Mature students are distinctive in forms of experience, commitments and previous education, particularly in the area of I.T./I.S. In addition, the Government Department for Education and Skills note I.T. as a preferred subject for mature students along with business/management studies and subjects allied to medicine (Ross et. al 2002). Such a point of preference, along with the various differences, warrants the study of these students, but sadly this researcher found specific studies of mature students in I.T./I.S. noticeable only by their absence. The interview format practiced here for the purpose of gaining a wide range of information from the mature students is a structure based on the Suite of Aspects - Dooyeweerd (1984). Therefore, as previously noted, both the M.A.K.E. and M.A.I.T models are products of the Theory of Aspects and the Suite of Aspects as a part of it. This research posits Dooyeweerd's Suite of Aspects via the M.A.K.E and M.A.I.T interview models as an alternative to interviews which ask questions based on the researcher's perception of what they need to know about any given subject area. Here the research area is stated to the interviewees and the aspectual suite is presented along with helpful keywords. It is then up to the interviewee to tell the researcher what they think is important, thus allowing a wide range of information to be imparted by the interviewee, at the same time allowing them a greater control over the interview situation than is usually permitted.

While the mature student interviews themselves are of paramount importance, the focus of the study has been to explore the Suite of Aspects as a framework for an alternative interview strategy. It is assessed for its capabilities as a way of gathering data and also showing the validity of the theory for a particular situation, and in turn grounding the theory by showing its suitability for the research purpose. The pathway taken by this research began with the way in which the Suite of Aspects was presented through the M.A.K.E and M.A.I.T

models and the 'correctness' in referencing aspects, then any possible accusation of the use of the Suite of Aspects as a checklist had to be addressed, as did the potential of the Suite of Aspects for producing a theory which is grounded and possible contributions to the Grounded Theory of Glaser and Strauss (1968).

9.1.1 M.A.K.E. and M.A.I.T. models as carriers of the Aspects

As has been previously recorded in The Study chapter, when interviewing the group of university students the interviews proceeded as planned but when attempting to interview the group of college students difficulties arose. The students were uncomfortable with the research process expecting it to be a list of questions to answer. They were not able to provide concepts and did not immediately appear to grasp the way in which they could relate information to aspects. In a practical sense one reason for college students not readily accepting the process of defining concepts may be because they didn't feel under any pressure to do so, while University students do learn about research frameworks and perhaps feel they need to prove their understanding of such.

It is true to say that the M.A.I.T. model came about in answer to the difficulties experienced by the college students. They were responsible for the preparation of an alternative strategy that would facilitate those who were unable to relate to the M.A.K.E (Multi-Aspectual Knowledge Elicitation) model. Specific obstacles to overcome were their expectation of questions, and providing a presentation of the Suite of Aspects which would encourage them to relate their information to the aspectual framework. Due to these needs aspectually informed keyword statements materialised which the interviewees easily comprehended, and keywords rather than aspectual names were referred to. Interviewees naturally spoke about their experiences and future hopes. Their thoughts and ideas came through in discussion without having to compel them to denote concepts or follow a regime of questioning.

9.1.2 Aspects as an alternative interview framework

The reader will remember from the Introduction chapter that the researcher pointed to the possibility of the aspects providing a structure for an alternative type of interview which does not rely on dictated questions or a question and

answer regime. One advantage of this is that nothing is purposely avoided as can be the case with prescribed questions, that is, areas which are considered as of no interest to the researcher. Allowing the interviewee to provide any information in reference to the aspects means that nothing is judged as 'off limits', the decision about the level and range of information provided is made by the interviewee.

The aspects provide this environment through a framework which is open to the interviewees' interpretation, that is, they choose what they want to talk about. Only the research statement is set as a guide at the beginning of the interview process. Although this allows greater freedom for the interviewee it might be judged risky or uncertain for the researcher. However, this was not the case here. It can be seen throughout the Research Findings chapter that the variety of referencing inherent within the aspects allowed individuals to relate information without having to answer specific questions provided from the researcher's perspective.

If the aspectual interviews are to be positioned as complementary to or providing an alternative for qualitative research interviews, specific requirements of the Suite of Aspects as a data-collection method in this instance (as stated at the beginning of this study), would be required. Those specific requirements being:

The ability to gain a wide range of information from everyday life/experience (without necessarily dictating structured questions) as previously discussed in the Introduction chapter, sections 1.6.2.4 and 1.7.3, ability to discover aspirations/potentialities of mature students (Introduction chapter, sections 1.6.2.1-7) from their own perspective and to explore the wider experiences of mature students as returners to education (Introduction chapter, section 1.3). Meeting these requirements relates to the three specific areas of research importance noted in the Introduction chapter:

1.   Mature students studying LT. (Introduction chapter, section 1.6.1)
2.   Ways of finding out what is important to mature students (Introduction chapter, section 1.6.2)

3. The notion of 'Aspects' which will aid this exploratory study. (Introduction chapter, section 1.6.2.5)

Therefore, this chapter discusses the study in relation to the stories of the mature students, the interviews exercised, and the overall findings. Also the methodology practiced is discussed and in addition to this, there have been various points in the thesis where Grounded Theory (GT) (Glaser & Strauss 1968) has been noted for its relevant elements. While the researcher considers that there are possible useful relationships between the use of aspects and Grounded Theory, if the Grounded Theory of Glaser and Strauss had been used here as a methodology, the proximity of use would not have allowed the consideration of the aspects as useful to Grounded Theory. However, as this is not the case, the possibility of the Suite of Aspects as useful when exercising Grounded Theory is proposed here.

9.2 Contribution to knowledge

The following sections present the contributions to knowledge derived from this work. The main areas of contribution are noted as; Aspects in Research which is connected to the area of Aspects Aiding Qualitative Interviews, Aspectual Interviews (exploration of the method), How Aspectual Interviews aid Grounded Theory which leads to Enriching Grounded Theory, Delivering a Theory which is 'grounded' and Grounded Theory comparisons with this study, Mature Students and I.T./I.S. and Reflections on the Research Process.

9.3 Aspects in research

The use of aspects in this research is one of the three specific areas of interest in the thesis. The reader will recall that aspects in our everyday understanding as categories and the way in which we use aspects in an everyday manner was discussed previously in the Introduction – chapter 1, section 1.6.2.1-8, and how the aspects have been useful in the interview process which was previously discussed in the Existing Bodies of Knowledge – chapter 2, section 2.2.4 and 2.2.4.3. In addition, the use of Dooyeweerd's Aspects by other researchers/authors is noted in the Existing Bodies of Knowledge chapter, section 2.9.

In respect of the Aspects applicability to everyday life (Approaches to Research – chapter 3, section 3.10) the reader will remember that relevance of the aspects in everyday life was noted as allowing both sense and reason to be explored multi-aspectually and as a format which allows a range of subjects to be commented upon. In addition, the danger of excluding experience from everyday life is noted in the Approaches to Research – chapter 3, section 3.2.1.

The reader may also recall that the Findings chapter, section 5 suggests that the P1 cycle shows comments made by the interviewees via the aspects, provide relationships to their everyday lives, such as the relationship between I.T. and family life. The Study chapter shows how the aspects allowed multi-aspectual referencing rather than a limited view of everyday life. The Approaches to Research – chapter 3, section 3.4.2.2 makes note that Dooyeweerd's Philosophy draws attention to 'meaning' placing his philosophy solidly in our everyday world and showing a way in which we can explore any subject from a multi-aspectual approach rather than limited points of reference.

The area of education in particular provides factors of success and failure which the aspects have allowed to surface. The reader will remember that relevance of the aspects in this work was noted as the potentiality of an effective structure on which to base the process of wide-ranging interviews; making the aspects an alternative worthy of exploration. In regard of this it should be noted that the vast majority of the interviewees related to all aspects as can be seen in the Analysis Section Two – chapter 7, table 7.2 and figure 7.1.

The findings suggest that aspects duly provide a wide range of information because interviewees relate to all or most of the aspects. This is useful to the interview process as Wolfson in Briggs (1986) makes clear stating that, historically interviews constrain information provided by interviewees (previously made note of in the Existing Bodies of Knowledge - chapter 2, section 2.2.2).

9.3.1 Aspects aiding qualitative interviews

By way of the aspectual suite, qualitative interviews can gain a wide range of information in a coherent manner as can be seen here, particularly in the Analysis and Research Findings chapters and additionally in the work of Winfield (2000). The particular advantage of the aspects for this research has been the irreducibility or spheres of meaning. Individual meaning and wide-ranging experiences are given coherence by the interdependency which flows through the suite of aspects as a whole (previously made note of in The Study – chapter 5, sections 5.8.6 and 5.17). In addition there are two directions of dependency, that is, in the foundational direction as in implementation (the lingual aspect could not function without structure and structure is not present without the analytic aspect), and in the anticipatory direction there is an aspectual dependency on the later aspects for function and fuller meaning.

9.3.1.1 Benefit 1 of this contribution

The findings suggest that a particular benefit and a contribution in this research is the way in which the aspects allow a wide range of information to be gathered. A wide-ranging (multi-aspectual) view is note by Nijhoff (2003) as enhancing quality in the educational environment (previously noted in the Existing Bodies of Knowledge – chapter 2, section 2.9). Certainly the researcher saw that the aspects allowed the interviewees to talk about their educational experiences and in regard to an array of influences from home and work, and from a range of perspectives. The reader can appreciate this in part by considering the noted examples from the mature student interviews as presented in the Analysis (chapters – 6 and 7) along with the quantitative data provided in both numerical and charts/graphical formats.

As noted in the Methodology – chapter 4, section 4.4, the suite of aspects is an expansive tool and a useful and practical tool for considering everyday life. Lewin made note that *"There is nothing so practical as a good theory" (Lewin 1951, p.169)* and certainly the Theory of Aspects has been seen to be practice oriented throughout this work and can be seen to have been so particularly in The Study – chapter 5 and Analysis chapters 6 and 7.

Detailed in the Analysis Section Two – chapter 7, section 7.3, 7.3.1, 7.3.2 and 7.4, is the explanation of incorrect meanings which occurred during the construction of aspectually informed statements. The researcher had unintentionally misinterpreted some definitions in the aspects. From this flawed understanding the analytic aspect was represented by the words planning and focus, however, planning should be in the next (historical/formative) aspect. The ethical aspect was represented by generous attitude and justification. While generous attitude is correct, justification belongs to the juridical aspect which is placed prior to the ethical aspect. However, on close inspection it is noted that the students kept their references to the true meaning of the aspect which shows the substantial level of meaning which is supported by the aspectual framework. Each aspect which is commented on by the interviewee has individual relevance, and irreducibility provides the importance and necessity of each aspect while the interrelatedness of aspects allows relationships to be made as and when the interviewee sees fit to do so. Therefore the contribution of aspects providing a wide range of information from individuals also has the added benefit that while dictated questions are not necessary the underlying aspectual framework appears to be providing a form of intuitive guidance.

9.3.1.2 Benefit 2 of this contribution

The findings suggest that not following a reductionist pattern and so not overlooking things which may not seem important at this time is another benefit of aspects in research. Interdependency of the aspects provides a holistic approach to information gathering as comments and narratives prevent a reductionist view allowing a rich picture of everyday experience to surface. The utilisation of aspects as a way to avoid reductionism is also stated by (de Vries 2003), previously made note of in the Existing Bodies of Knowledge – chapter 2, section 2.2.4.2. In the process of analysis the researcher certainly found that it was necessary to designate an 'Other' category, to prevent the loss of information which may later come to light as useful to further study. Therefore, the wide ranging information has not only provided information relevant to this study but may well have allowed the collecting of information useful to further research.

In addition, the Suite of Aspects aided the researcher in managing the issue of necessary change, by being easily augmented to provide an interview format which was acceptable to the second group of students. The aspects proved to be easily adapted to an alternative level of understanding which allowed the research to continue unhindered.

Alongside the issue of incorrect meanings there is also the point regarding starting interviews with the sensitive aspect (as noted in The Study – chapter 5, section 5.8.6). In the university interviews, the interviewees attributed information to the ten aspects from sensitive to pistic. This was not a consecutive procedure linking from sensitive to analytic, historical, lingual, social etc. In this case, after the first statement which initiated the interview process any further researcher statements were associated with the interviewees' answers where possible, and the interviewees were asked to put the information they provided into the aspects they believed to be relevant to that information. Information was not linked procedurally to each aspect, they were chosen at random as seen fit by the interviewee.

However, the college interviews were completely different and this led to the use of aspectually informed statements. In this case the researcher proceeded through the consideration of each aspect in a consecutive manner from sensitive to pistic. Although consideration of the decision to use such a procedural manner was not recognised at the time, in retrospect the researcher now considers this action as based on instinct developed from the college environment and experience of the difficulties in the first three college interviews, as previously documented. The researcher now considers that the decision to begin with the sensitive aspect was due to an intuitive assumption that feelings are something we can all easily talk about, in effect the first statement has a practice element of familiarising interviewees to the process without causing them to be concerned about difficulties in the interview process. This is supported by Dooyeweerd's appreciation of things in everyday life and Helberg when noting *"According to Dooyeweerd these aspects can be observed in everything that exists in temporal reality"* (Helberg, Goede & Strijbos 2003, p. 40). Dooyeweerd himself suggests that the sensitive aspect is the closest link to our immediate experience of things

and therefore closest to our pre-theoretical or naive experience. In this instance it may be appreciated as one of the reasons why the college students struggled with the M.A.K.E. model which allows a non-procedural choice of the aspects and, therefore, why the M.A.I.T model which steered them to begin with the sensitive aspect was more successful in this instance.

The researcher's intuitive assumption to begin with the sensitive aspect may also have been established due to the structure of the suite of aspects which assists progress and development by its very nature. It should be remembered that the aspectual suite was constructed in a manner which while it is not a hierarchy it does have a base of previous dependency and future anticipation. Therefore, the sensitive aspect is not greater or lesser than the next (analytic) aspect but the analytic aspect does depend on the sensitive aspect. If we are not first sensitive to our feelings, what will lead us to analyse anything? If we did not use our analytical minds to focus, how would we plan anything (historic aspect)? And in planning the necessity of communication is anticipated in the following lingual aspect.

9.3.1.3   Benefit 3 of this contribution

The findings suggests that emancipatory factors as in the element of individual choice was available to each interviewee as they chose whether or not to note each aspect and whether or not to use the aspects as a hierarchical structure. The belief of the researcher that an intuitive decision to begin with the sensitive aspect was dictated by environment and experience may actually be due to the guiding nature of the Suite of Aspects which may well foresee the effectiveness and value of an everyday format which encourages individuals to discuss issues on any level they consider acceptable and without anxiety. Also, de Vries (2005, section - Analyzing Technological Complexity) states that much debate has been had in regard to a hierarchy of Dooyeweerd's aspects and notes: *"Humans are the only entities that can function as subjects in the aspects from the analytic aspect and higher on. For that reason the exact order of the higher aspects does not matter ..."*. When the researcher interviewed the individual students it was seen that using the aspects in either a consecutive or random manner allowed a wide range of information to surface. The student's choice to utilise the aspects

as they saw fit in the interview process provides elements of freedom (previously noted in the Exisiting Bodies of Knowledge – chapter 2, section 2.2.4.3) and relates to the encouraging/emancipatory environment provided by the aspectual interview process.

9.3.2 Area of contribution – Aspects in research.

This study provides the exploration of an alternative format for qualitative research (The Suite of Aspects). 'The notion of Aspects' is addressed as an area of importance in this study. The findings suggest the usefulness of the aspects in respecting everyday experience, offering a non-dominant environment and producing a wide range of information to be considered. The use of the Suite of Aspects for both the interviewer and interviewees is represented alongside its adaptable and emancipatory nature. This is a contribution to the theory behind interview research - P2 contribution.

9.4   Aspectual Interviews (P2) – The researcher exploring the method.

The aspectual format provides a framework which was acceptable to the mature students as can be seen by the level of interaction by the interviewees with the aspectual framework (Analysis Section Two - chapter 7). It is shown that the vast majority of interviewees related information to each aspect (see table 7.2). In addition, everyday elements far outweighed the recorded points in relation to the theoretical (see table 7.1). The aspects allowed the interviewees a pluralist framework – (Methodology - chapter 4, section 4.5.1) in which they could assign subjective and objective perspectives, and a wide range of qualitative and quantitative information.

How to find out about 'what is important to mature students', is one of the three specific areas of interest in this thesis and the reader will recall that the aspectual format allowed the mature students to explain their experiences without the researcher enforcing specific questions. The researcher wanted the interviews to be content-rich and this promotes the consideration of all the aspects of everyday life which interact to provide meaning of what is important. Reducing the defensiveness of interviewees is an important part of the process as noted here:

> *"We recognise that communications from another person may be an attempt to force or beguile us in a direction which we may not wish to go".* (Kahn & Cannell 1957, p.6)

Therefore it was important to the researcher that the interviewees did not feel that their information would be misinterpreted.

> *"The interview must be a process in which the forces to distort or withhold communication have been eliminated or reduced as much as possible."* (Kahn & Cannell 1957, p.8)

From the very beginning, this work has concentrated on learning whatever was possible about mature students and their relationships to information technology/information systems. Insights were sought in regard to I.T./I.S. as relevant in mature student education and also in a much wider, everyday sense. The difficulties of gaining such information soon became a paramount issue. In a consideration of how to acquire information without anticipatory questions the Suite of Aspects became the framework of preference. The previously established M.A.K.E. model was utilised successfully with one group. While M.A.K.E. was not acceptable to the second group, an alternative format (M.A.I.T.) was, and the interviews proceeded accordingly. The researcher believes that the difficulties found in acceptance of the M.A.K.E. model were due to prior expectations of how the interviews would proceed and educational experience/culture. It quickly became apparent that asking for concepts and relationships was not going to help the progression of the interviews. What might be termed 'blocking' was repeated by the interviewees, such remarks as, *"I expected to just answer questions"*, *"do I have to understand this* [the M.A.K.E. model]*"*, *"I don't know about concepts"*, *"I don't know"*, *"In what way [what do you mean]"*, *"All [everything] the same"*, *"No"*, etc. Because of what seemed like insurmountable difficulties, the researcher had no choice but to revert to a more traditional presentation. To this end the keywords of the aspects were used in statements to encourage the interviewees to tell their stories, and they immediately began to do so.

9.4.1 Benefit 1 of this contribution

The findings suggest that a particular benefit of this contribution in this research is the way in which the aspects allow a wide range of information via individual stories. It has been noted that sociolinguists value this way of gaining information:

> *"Even when using the standard interview, sociolinguists have structured it to elicit both formal and less formal styles by, for example, asking informants to recount a story about something...that happened to them: the use of self-narrative tends to reduce self- consciousness in speech".*
> (Coates 1993, p.5).

The work of Coates is previously noted in the Existing Bodies of Knowledge – chapter 2.

The aspects as a less formal structure for interviewing allowed the individuals to tell their stories without relating to specific questions. The interviewees appeared relaxed and not at all self-conscious. It is accepted by the researcher that explaining any research is fraught with the difficulties of methodological and theoretical problems as noted by Briggs (1986). Explaining a research project and attempting to calm the nerves of the interviewees is a skill in itself. It may well be that another more experienced researcher would have dealt with the interviewees' difficulties in a different way. However, when in the field and faced with such difficulties the researcher must act upon instinct and attempt to provide solutions to any immediate difficulties. At this time it is impossible to say whether or not a different form of interaction would have allowed the college students to accept the M.A.K.E model.

M.A.K.E. provided a useful interview framework for the professionals who were interviewed for the pilot interviews and the university students who are accustomed to a range of research methods and methodologies. However, the college students were just not able to supply concepts and overtly state relationships. It must be said though, that within the text of the interviews carried out by the M.A.I.T. model, concepts are noted and relationships are made. Therefore, they emerged naturally but were not recognised as such by the interviewees and so become secondary explanations due to being recognised by

the researcher rather than the interviewees themselves. It is shown throughout this study that the information related via individual stories have benefited from the underlying guidance of the aspectual suite.

9.4.2 Benefit 2 of this contribution

The findings suggest that a particular benefit of this contribution in this research is the way in which the aspects allowed interviewees to express their opinions meant that they were not forced to overlook or downgrade certain elements in their stories which may not have related specifically to dictated questions.
Harrison states that:

> "...knowledge is always grounded in the people who tell the story...interpretation comes from...methodology rather than from the data...an interpretation... [is] grounded in theory (methodology) rather than being grounded in the data". (Harrison 2002, p.7)

The researcher was interested in the stories of the individuals not being contaminated by the point of view held in a question which may force the individual to overlook certain events. In this way the aspects aided the grounded knowledge of the story teller to surface. Grounded Theory and the grounding of theory are noted throughout the thesis but particularly in the Approaches to Research – chapter 3, section 3.6, The Introduction – chapter 1, section 1.7.1 and the Existing Bodies of Knowledge – chapter 2, section 2.10. In addition it is made note of throughout the Research Findings – chapter 8.

While the previous comments may suggest that M.A.K.E. has greater value, it is not the case when balanced against not gaining information because an individual does not feel able to engage with the framework.

Winfield's (2000) research which provides the M.A.K.E. model, centres around actualities (knowledge that is already formed and that which the interviewee feels confident about), while this study of mature students is particularly in regard of potentialities, that is, the vague area of what they consider to be important both in their education and other areas of their lives. However, as M.A.K.E. and M.A.I.T. are related by the Suite of Aspects, it is reasonable to say

that this is the great strength of both models, and it can be seen that they both acquire a range of information. It would always be useful to attempt the utilisation of the M.A.K.E. model first as this provides defined concepts and relationships. However, the M.A.I.T. model shows the usefulness of aspectual interviews in another environment where the interviewees did not respond well to an unfamiliar form of the interview process.

In regard to gaining insight into what is important to the students, the term aspirations/potentialities has been employed. Both the M.A.K.E. and M.A.I.T model had high-level responses in respect of this category, 41% and 47% respectively. While the level of responses in M.A.I.T. was higher, it was not excessively so. Therefore, M.A.I.T. can not be judged as superior for this task, and as it was the only category that gained a higher response than those in the M.A.K.E. model, there is no currency in suggesting that it gains more information per se. In addition, the M.A.K.E. model produces a greater level of aspectual response. Out of the three categories which emerged from the data, M.A.K.E. acquired a nine out of ten aspect response on two occasions and a ten out of ten response on the third. Unfortunately, M.A.I.T. provided much lower levels, that is, three out of ten aspects noted in regard to mature student issues, four out of ten in regard to I.T., and eight out of ten for aspirations and potentialities. Having said this, it can be argued that I.T. and mature student issues are far less relevant in the minds of the college students and therefore account for the lower numbers of aspectual referencing. The one category which is relevant across the groups is aspirations and potentialities, and in this respect there is a greater level of parity between the two models.

The evidence is that in both interview formats, that is, M.A.K.E. utilising the aspects and M.A.I.T. utilising keywords to relate to the aspects, the interviewees grasp the meaning of that which denotes each aspect to the degree necessary for this kind of interview, namely an intuitive grasp. For example, when the researcher repeated the following interviewee's statement: *"The fact that the younger ones think they 'know it all' and can just get into work"*, and then added, *"Does that fit into the aspects?"*, the interviewee replied immediately *"Analytic, lingual, social and juridical 'what is due', a lot of the younger ones*

think because they've done a degree they're owed a good job and a good wage. They've got no idea that this is just the beginning of the learning curve". Both the immediacy of the reply and that aspect naming was followed up by rather succinct content indicates that the interviewee not only understood the aspects conceptually (as one might in order to answer questions in an exam) but also to the extent of using them within a conversation. Therefore, the researcher does not consider that the interviewees were confused by aspects or misunderstood them. One interviewee attributed *"the only reason I'm studying I.T. is because you've got to do it on the course"* to the sensitive aspect (feelings). This seems like a misunderstanding of the aspect, at least from the researcher's point of view, but such 'misunderstandings' were not seen to be important because the overall aim is to help the interviewee open up on a wide range of issues, especially everyday ones, rather than pass a test in understanding the aspects. But, sometimes it could be seen that interviewees actually meant something closer to the kernel meaning of the aspect than the words they used might imply, and in fact their aspectual positioning was more helpful in understanding what the interviewee wanted to say than the words they used. This confirms both Dooyeweerd's claim, and the findings of Winfield (2000) that the kernel meanings of the aspects are grasped by intuition rather than theoretically.

As a qualitative instrument the definitions in the aspectual suite must be seen as open to a certain level of interpretation. However the kernel meanings do provide anchor points for each aspect and there are connective elements in preceding and following aspects. It is important to be aware that most statements are multi-aspectual and thus will be attributed differently in the aspectual suite depending upon the strength of feeling toward one or more elements. However, what is identified here is the aspect that is most meaningful for the statement. It is the stimulation of wider thought which is the important factor and the reason why the suite of aspects has been applied to the collection of information from mature students.

9.4.3 Benefit 3 of this contribution

This contribution is related to the interviewee and interviewer relationship. Based on the intuitive grasp of aspects by interviewees, the findings suggest that

reference to aspects has an unexpected benefit in interviewing, namely to help overcome the difficulty some people have in expressing themselves in words, which can be viewed as a basic emancipatory element. An additional benefit of the wide-ranging aspectual format may be the enabling of researchers whose experience is less wide than that of the interviewee, providing as it does an extensive reference template. These points require further exploration and could be expanded by being part of further research especially with regard to *'expected outcomes'* of interviews (Brenner 1981) and *'misapprehensions'* noted by Guba and Lincoln in Denzin and Lincoln (1994). The researcher certainly appreciated the structure of the aspects as an enabling tool in respect of interviewing. In addition it was seen by the researcher that the structure aided the interviewees, this is noted in: The Study – chapter 5, sections 5.2 and 5.5, Analysis Section Two - chapter 7 and the Research Findings - chapter 8.

While the researcher should avoid bias where possible (Holstein & Gubrim 1995), inherent bias must be acknowledged, the importance of this is that to reduce its effects it is necessary to first acknowledge its existence. To aid this process, interviewees should be given the freedom to talk about all aspects of their lives in whichever way they feel is appropriate. By doing so any bias the researcher has towards specific information is limited as the choice of subject is passed to the interviewee.

Aspects as a form of perspective (intuitive judgements) is made note of in the Methodology – chapter 4, section 4.3.2, and the allegation of the process of aspectual referencing as slot filling is seen to be unfounded as is noted in the Analysis Section One - chapter 6, section 6.8.

9.4.4 Area of contribution – Aspectual interviews.

Ways of finding out about mature students is an area of importance in this research. To this end, both the usefulness and applicability of aspectual interviews is represented here. The ways in which this has proved particularly useful in interviewing mature students and the way in which the aspectual suite may be amended to provide for different levels of experience and understanding is recorded throughout the thesis. For researchers considering an alternative or

complementary approach to data-collection, this research contributes to the exploration of the M.A.K.E. model. In addition, it provides the M.A.I.T. model. Therefore there is a contribution here to the area of aspectual interviewing. This is a contribution to furthering the application of M.A.K.E. and the Suite of Aspects. This is a P2 contribution.

9.4.4.1 The validity of Aspects in interview practice

Validity is previously noted in the Existing Bodies of Knowledge – chapter 2, section 2.2.4.1 in regard to the exactness of the outcomes, that is, in this case whether the interview method provides information relevant to the research event.

The reader will recall that 'the aspects as useful for interviews' was previously discussed in the Methodology for this Study – chapter 4, sections 4.4 and 4.4.1. It has been seen that the building of concepts as guidelines in the M.A.K.E model provided information as did the guide statements and no-concepts process of M.A.I.T. The Study chapter presents the interview structures through a nine and ten step plan, it also shows the use of aspects via keywords, always maintaining that the underlying structure of the interviews being the Suite of Aspects and as such denotes its great strength. Additional interview formats could be created around the aspectual suite but the defining theoretical structure is that of the aspectual suite which provides a strong but flexible arrangement of everyday meaning in human life. Presentation formats such as M.A.K.E and M.A.I.T are important as bridges which provide a way of accessing the aspectual suite for those from different backgrounds, experience and educational cultures. Without such means which provide access to the utilisation of the Suite of Aspects it may be considered difficult, unapproachable or simply remain unknown, which would be unfortunate given that this researcher has found it to be a valuable alternative to the usual interview style and considers that it may have further possibilities regarding research interviews and question design along with the practical elements of providing spheres of meaning which may lead to categories and also the tracing factors of highlighting both what has and has not been commented upon, such a mechanism for coherence being invaluable. These points suggest

that it is valid to present the Suite of Aspects as an alternative interview technique.

The reader will recall that the Introduction – chapter 1, stated the hope that the Suite of Aspects would; provide a wide range of information about mature students and provide a useful framework for interviewing mature students.

While it is noted that this work shows a wide range of information gathered from mature students via the aspectual suite Dooyeweered never laid claim to absolute material completion from the use of his aspectual suite (Methodology – chapter 4, section 4.7.1), however this research in line with the values of exploratory research did not attempt to lay claim to specific or direct answers as may be expected in positivist research findings.

9.5   How Aspectual Interviews can aid Grounded Theory.

Grounded Theory is a secondary issue in this thesis. However, the reader will remember that it was discussed previously in the Introduction – chapter 1, section 1.7.1 and the Existing Bodies of Knowledge – chapter 2, section 2.10. The issues in regard to G.T are how the Suite of Aspects may prove to be useful for Grounded Theory/the enrichment of Grounded Theory and also using a theory which is grounded for this work.   These issues drew references from Glaser and Strauss (1968), Austin, Jefferson and Thein (2003), Bryant (2002). This study shows that the process of emergent generalisations proposing categories (as utilised in Grounded Theory) has been the way in which a natural flow of information surfaced via aspectual referencing in the mature student interviews.

However, in addition to this the referencing of aspects provides a way in which the researcher or a third party can look at the information at a later date and consider not only the interviewee's statements but additional meaning which prompted them to attribute said statements to particular aspects.   Grounded Theory discounts data which is not seen as suggesting a category, while emergent generalisations are used here as categories, information which is not

considered strong enough to be categorised specifically is not lost. It is simply tagged as 'other' as it may become useful at a later date.

9.5.1 Benefit 1 of this contribution

The findings suggest that a particular benefit of this contribution in this research is that the aspectual interviews fulfil the original aims of Grounded Theory and that interviews based on the Suite of Aspects are therefore commensurate with GT. M.A.K.E and M.A.I.T share with GT the aim of generating rather than verifying theory. They also avoid preconceived categories, allowing the interviewee to be completely free to speak of whatever categories they wish, referencing the aspects helps stimulate them to do so. At first sight, it might seem that Dooyeweerd's aspects are prior categories, but that is not so. Glaser and Strauss's Grounded Theory (1968) concerned itself with emergent categories not being contaminated by concepts more suited to other areas and the consequence of the forcing of data. In regard to the forcing of data the researcher suggests that aspectual interviews help to separate out categories so as to reduce 'contamination'. This does not force but, in fact, liberates and stimulates. As previously noted, the researcher has experienced that aspectual interviews help to overcome the neglect of relevant categories.

9.6   Enriching Grounded Theory

Aspectual interviews also re-emphasise theory generation. The aspectual interviews can contribute primarily in bringing to light the relevant information from which theories may be built. They fulfil the requirements that Glaser and Strauss claim are necessary for a good theory (1968). That is, provide clear categories which can be verified in the future and provide theory that is understandable by other. The clarity of categories the aspectual interviews generate is enhanced by virtue of the focus on the aspects, and the theory of aspects for the purpose of interviewing is understood at least in a practical sense by the interviewees, therefore, it seems that the kernel meaning of each aspect is readily grasped by the intuition and so it does not take an expert to understand it. In addition, Glaser and Strauss state that the theory must fit the situation under research and to this end the categories must be readily (not forcibly) applicable to the study, which will mean that they are relevant. The process by which the

aspectual interviews enables and allows the interviewee to generate their own meaningful categories via the aspects ensures the 'fit'.

The basic reason why the aspectual interviews do not force is that aspects are not categories. Rather, they are spheres of meaning from which categories may be formed. Far from constraining, the aspects free and stimulate the interviewee to uncover information they would usually take for granted and fail to bring into the process of theory generation. In aspectual terms, grounding data is equivalent to saying that it should be that which might be found in the rich scenario of everyday living. Forcing can occur and an aspectual explanation of why this is detrimental is that the full meaning of the aspect is not allowed to be developed. But taking note of the kernel meaning of each aspect overcomes this. For example, the business and economic sciences focus on production and consumption and a financial medium of exchange, but the essential part of the economic aspect is the management of resources. So, assuming that business should maximise elements such as owner value is not only revealed as just one assumption that may be questioned but is revealed as deeply flawed.

Another reason in reference to forcing data is seen when the analysis is undertaken from within a narrow range of aspects. Since aspects are distinct spheres of meaning, the suite of aspects attempts complete coverage of all possible meaning, relevance is always with respect to a particular aspect (or sometimes a few aspects).

In Grounded Theory the importance of information and concepts are designated exclusively by the researcher. In addition a core category is established by the researcher. When this happens any subsequent information not relating to the core category is discounted and theoretical saturation is said to have been reached when further interviews add nothing to what has been recorded about a category and its relationship to the core category. Therefore, a core category is established as most important at which point any non-relating information is abandoned. This researcher's concerns hinge on the concept that theory is generated from data. The data comes from interviews which are likely to have

had some format. Therefore the gathering of data has an a priori selection process dictated by the researcher but not stipulated.

The aspectual interviews reduce the overall dominance of the researcher in the interview process by way of one research statement which is based on the research situation and all other statements being generated by the interviewee. Furthermore, all information is related to aspects by interviewees. All information is acknowledged by the interviewee via a final check of all data gained during the interview. In addition to this, no hierarchy of information is implemented and no one 'core' aspect is absolute. Therefore, a wide variety of information continues to be given credence.

The researcher acknowledges the shared quality of self-generation which is apparent in Grounded Theory and the aspectual interviews. This can be seen as Grounded Theory's internal generation of theory from data and the aspectual interviews internal generation of data from the individual interviewee. Criticisms of Grounded Theory such as it being "value bound" (Austen, Jefferson & Thein 2003) and providing "superficial and ambiguous conclusions" (Bryant 2002) can be helped by the application of aspectual interviews. Any values and conclusions are supported by referring back to the information given by each interviewee. Any values and data which inform conclusions are individual, original and have importance to the interviewee.

While the researcher did not directly choose to apply Grounded Theory for this study, similarities in style by way of the hermeneutic process of assessment and reassessment and use of categories can not be overlooked. However, this work is the exploration of a theoretically based interview method, which provides an alternative approach to interviewing and that allows forms of referencing which may be valuable when using Grounded Theory. The appropriateness of this, of course, would be part of further research with aspectual interviews.

9.6.1 Benefit 1 of this contribution
Delivering a Theory which is 'grounded' - The findings suggest that a particular benefit of this contribution in this research is that the aspectual interviews appear

adept at helping the interviewee to realise the wide range of relevant aspects, it constitutes a good starting point for generating theory which is noted by Glaser and Strauss (1968, p.3) as: *"a way of arriving at theory suited to its supposed uses"*. Certainly the aspects can be seen to be useful in and suited to interviewing. At various times throughout this thesis it has been noted that the aspectual interviews provide emergent generalisation and the emergent generalisations, in this case, confirm the research focus. Given that this has occurred, the relevance of aspects to Grounded Theory can be considered.

9.6.2 Grounded Theory comparisons with this study.

The researcher is aware that the use of Grounded Theory begins with the research situation as phenomena in order to find a theory which can account for it, as has occurred in this study. Grounded Theory is applied in order that researchers may gain an understanding of what is happening rather than to test a hypothesis, which again has been the case here as constant comparison of interview material is the central process. In a critique of GT, Allan (2003, p.1) states that *"Grounded Theory is a powerful research method for collecting and analysing research data"*. He notes Glaser and Strauss as saying, GT investigates the actualities in the real world and analyses data with no preconceived hypothesis (Glaser & Strauss 1968), which would relate to the style of this study. He again quotes Glaser & Strauss saying; *"Glaser and Strauss (1968) insisted that preconceived ideas should not be forced on the data..."*, this is another point which relates to this work. Austen, Jefferson and Thein (2003) make note that; *"Others (scholars) contend that grounded theory helps researchers produce analytical generalizations of theoretical concepts and patterns, which, while their significance may vary according to context, can be of universal importance (Dorothy Leonard-Barton 1990; Orlikowski 1993)"*. (Austen, Jefferson and Thein 2003, p.3)

However, Grounded Theory does not dictate a specific form of data-collection. It is due to this that the researcher considers that the aspectual interviews would be useful in gaining a wide range of data to assist the Grounded Theory process.

9.6.3 Area of contribution – Grounded Theory.

While Grounded Theory was not utilised for this project, there are points of reference (see chapters 1, 2, 3 & 8). Factors such as emergent generalisations and the process of theoretical saturation are seen to have relationships in the way that the Suite of Aspects guides the data collection process. These links and the possible benefits of the aspects when using G.T. are discussed in this chapter. Therefore a contribution is made to the debate on Grounded Theory through the complementary benefits of the Suite of Aspects. This is a P2 contribution.

9.7 Mature students and I.T./I.S. – (the specific messages in their stories)

Mature students in I.T./I.S. is one of the three specific areas of interest in this thesis and the reader will recall that mature students in I.T./I.S. were discussed specifically in the Introduction - chapter 1, section 1.2 and in the Existing Bodies of Knowledge – chapter 2, section 2.5. In addition the reasons for this study were noted in the Introduction – chapter 1, section 1.2, as was, mature students as a type in the Introduction – chapter 1, section 1.3, where the reasons for deciding to study mature students in I.T. were set out. The reader will remember that mature students were described as different to their younger counterparts and the observation that the needs of mature students may not be met in institutions at this time was posited. Allowing mature students to tell their stories without specific questions provided a stage for these individuals to state their concerns and aspirations.

Everyday lifeworld information is provided through the aspects (The Study – chapter 5, section 5.6). Dooyeweerd positions the everyday life-world as significant and a part of theoretical thought giving importance to everyday knowledge. Therefore, what may be seen as the mundane, such as helping children with I.T. homework is allowed to surface as part of the fuller reasoning for why individuals return to education as mature students and particularly to the subject of I.T./I.S.

The importance of data-collection in research has been previously stated as have the difficulties and issues which are noted by other researchers: presupposed social norms - Briggs (1986), interviewer bias – Oppenheim (2003), the

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researcher having the choice of being a disinterested scientist or pursuing expansion of consciousness as noted by Guba and Lincoln in Denzin and Lincoln (1994). These issues particularly relate to the dominance of the interviewer over the interviewee via the dictation of questions which place boundaries on that which will be discussed and therefore deemed relevant.

9.7.1 Benefit 1 of this contribution

In regard to mature student stories which are not designed around dictated researcher questions, the findings suggest that the aspectual interview strategy nominates an area of study which the interviewee is at liberty to comment on in any way they see fit. The aspects are provided as a frame of reference for elements of everyday life which they may or may not comment on at their own discretion. This strategy brought forth a wide-ranging commentary from each respondent which can be seen from the interview transcripts and observed by the tables which represent the comments by aspectual referencing. Utilising the aspects avoided the misinterpretation of question which is one problem noted by Foddy (1993). There were a mass of references to everyday life/experiences of the mature students. While this provided material, some of which may not be considered specific to the study area, it allowed the students to speak freely and within this the important factors particular to the research began to surface without being suggested by the researcher or forced by structured questions. The researcher saw this as providing an emancipatory style of discourse and a relaxed atmosphere where the interviewees spoke freely and fully of their experiences and hopes for the future.

The mature students studying I.T./I.S. were able to relate their stories via the aspectual suite, although as already noted, two versions of the aspectual interview were necessary.

However, the qualitative information recorded about these two groups in some instances is very similar suggesting parity between the outcomes of the M.A.K.E. and M.A.I.T. model and the usefulness of using an aspectual foundation for collecting information from mature students. The three specific categories which emerged from the data were, aspirations/potentialities which relates to what is

important to the mature students, mature student issues which reflect upon how they see themselves and their situation, and I.T. which while comparatively diminutive in terms of responses, allows some consideration of the relevance or non-relevance of I.T. in both the educational experience and everyday life.

9.7.2 Benefit 2 of this contribution

Regarding, what appears to be important to mature students (P1), the mature student stories provided qualitative detail of the category aspirations/potentialities which provides that work is the dominant issue of importance in the minds of mature students at university. As they have previous experience of the workplace they may have knowledge that will help them, but they also know how difficult it can be to gain and sustain employment. Having given the best part of three or more years in an attempt to improve their prospects, this is a worrying issue. This is not just a financial worry about how much they can now earn, they are also concerned about working in an interesting environment and doing something that they consider worthwhile. After all, they have probably already done an amount of work which was uninspiring and underpaid. It was also found that the learning opportunity itself is of great importance to the mature student as it is a symbol of something they missed out on in earlier life and often something which they never expected to do. The level of personal achievement is also a strong factor of importance and is noted as gaining self-confidence and self-esteem, also noted in work by Cantwell & Grayson (2002), Young (2000) and Murphy and Roopchand (2003). A step beyond what might be seen as university boundaries, when thinking about the mature student experience, are the relationships with their families. Comments about family life portray how important these achievements are seen to be, not only for the individual but for the betterment of the whole family.

The college students provide a similar yet differently structured picture of the important elements as established in their minds. Most importantly was that of the educational experience. Following on from this was their personal level of achievement. The importance of work after education was a close third and after this were issues of family life.

The finding of work as placed in importance firstly and foremost by the university students and only in third place by the college students may appear as a vast difference in mindset. However, on reflection the researcher can place this particular difference as linked predominantly to the fact that the college students' minds are set on acquiring a place at university, and the university students see their next step as finishing education and acquiring employment. The way in which these obvious differences in the data are easily balanced shows the parity of information between both the M.A.K.E. and M.A.I.T. models and therefore the usefulness of using an aspectual foundation for collecting information from mature students.

9.7.3 Benefit 3 of this contribution

In regard to the stories of the mature students and the comments that were made about I.T., the findings were that the university students consider I.T. most predominantly with their work ambitions, which is not surprising considering they have chosen this as their main area of study. Although, there are some who see the I.T. degree as a way of moving into an alternative profession. However, this still links the I.T. qualification to the workplace.

The researcher notes that there were few comments made about I.T. by the college students, and those that were, sadly suggest a complete lack of interest in I.T. The greatest awareness being the use of the internet and I.T. in the home, such as helping children with homework. While this is useful and commendable, they saw I.T. as the compulsory subject which they had to put up with. The future careers of these students are noted as in the NHS. Therefore they could utilise I.T. much more effectively towards their envisaged professions, given the dominance of I.T. and I.S. in the National Health Service. However, this seems to be a missed opportunity even though the UK Government are promoting I.T. for adults, *"ECDL [is] the computer skills benchmark"*. (Training Reference 2005)

9.7.4 Benefit 4 of this contribution

The experience of being a mature student returner is portrayed by the stories that are related through aspectual referencing and particularly shows that the

interviewees were not simply filling aspectual slots, on the contrary they shared their day to day life issues, a rich picture which included elements of education, family lives and their aspirations. Insights regarding the relevance of I.T. in their educational experience and their lives were also provided alongside elements of difference between studying in further education and higher education.

The findings here suggest that the experience of the mature college students is a far happier one. There were some extreme stories of university students who felt let down, overwhelmed and upset by their experience. However, it should be said that all such stories were followed by comments of defiance and strong commitment when carrying on and not allowing themselves to be beaten by the lack of support they felt they encountered. It was found that being a mature student in the university process forced strong comparisons of age and ability. More often than not the mature students felt less important and sometimes undermined by the whole experience. However, the college students who were taught in exclusively mature student groups, felt accepted, nurtured and confident.

This is a specific period in time for the subject of I.T./I.S. which may never be repeated. What can be learnt about these students now can only assist others who have benefited from some level of compulsory I.T. education but still have all the concerns of being a mature student in this subject. It should be remembered that I.T. is noted by the Education and Skills Government Department as a preferred subject by mature students (Ross et. al 2002).

The researcher reflects that while these finding may suggest that mature students should study for their degree in exclusively mature student groups, this can not be the answer as there are few institutions in Higher Education which provide this facility. Therefore, an improved environment more conducive to mature students within the available structure would be a likely way forward. In this researcher's opinion, acknowledging that mature student needs are different and paying more than lip service to the issues of diversity in the student population would be an important step forward. The comments and insights most likely to be of importance in such a project are those of the mature students themselves.

9.7.5 Area of contribution – mature students studying I.T.

Mature students studying I.T. is an area of importance in this study. While mature students are studied in their own right in relation to many topics, I.T. is not one of them. This is unfortunate due to the uniqueness of a generation who did not study I.T. in compulsory education, did not grow-up alongside the artefacts unique to the subject and yet have found it such a part of their everyday lives.

The experience of those mature students studying I.T. either by design or default portrays their relationships with I.T. as a discipline and as part of everyday life. This information contributes to the limited research which specifically focuses on mature students in I.T. and additionally to factors relating to widening participation issues in adult education. This is a P1 contribution.

9.8 Reflections on the research process

The information collected about the mature students shows that while they all have diverse, individual stories to tell, there are specifics which emerged as generalisations. The gathering of the data was ably assisted by the aspectual structure which provided referencing for the interviewee and the researcher. The use of the aspectual suite through the M.A.K.E. and M.A.I.T. models provided a viable and interesting alternative to simply asking questions from the researcher's perspective.

9.8.1 Research Methodology

This study has provided an exploration of layers where experience and close proximity is applied, as in (P1) interviewing. In turn an assessment of the interview framework at a distance from the interviews as in (P2) research occurred. These layers can be considered alongside single and double-loop learning (as noted in the Existing Bodies of Knowledge – chapter 2, section 2.4.4). For the individual the premise of experience, understanding and critical thought are enacted within double-loop learning and these can be applied for a wider perspective. Individuals carry out these stages of self-reflection for personal learning as is stated by Argyris (2005) and Schon (2005), while here the researcher has utilised this on a much larger scale and in addition reflects upon

the research itself which can be considered as deutero or triple loop learning (Argyris & Schon 1978). Certainly the researcher saw that the separation of the P1 and P2 considerations allowed very different perspectives as is recorded in the Research Findings – chapter 8.

Often researchers carry out interviews to gather information about external subject matters, which are in no way connected to the interview process. However, this research dictated a structure for both elements and therefore contributes to the debate around issues of the different levels of learning and understanding which occur in research. Social research is often about a social situation from which the research can not be removed (Sayer 1992). However, this study is research about research, which is set in a social situation from which it can not be removed. This is a P2 contribution and suggests that further research may provide greater understanding in the area of research which is itself observed as a research process and is in turn inextricably connected to the social environment and therefore influenced by it.

There is a fine balance which must be managed when the research has a dual role. In this case there are P1 and P2 areas of practical design/implementation of an interview method (P1) and the research/analysis of the same method (P2) and then reflection on this. The fact that social research is influenced by social actors is clearly shown by the interviewees presenting the need of an additional interview method. The point that social actors utilise what is acceptable to them from research and allow it as part of social interaction and practice (Sayer 1992) is also clear from the accepted use of the Suite of Aspects in the M.A.I.T. model as they used the aspects and keywords for their own narrative purpose. Therefore a contribution is made here to the debate regarding two-layer research. The P1 positioning of the research allows an engaging rather than distant relationship with the interview process. The P2 position provides the necessary demarcation between interviewing and analysis.

In reflecting upon what might have been done differently, this researcher believes there is much more work to be done in regard to interviewing. Filming the interviews would be useful to allow a consideration of the environment and

the body language of the interviewees, though it must be acknowledged that this brings its own difficulties and ethical considerations. During the course of this study, the researcher recalls that when relating elements to some aspects (particularly the pistic aspect) some respondents were fervent and animated. It would also have been interesting to keep a filmed record of the point at which the college students were not able to understand the M.A.K.E. interviews and the decision to provide an alternative model occurred. In addition, the differences of how the students interacted with the process may have provided an additional area of interest.

In regard of the time frame of the research, in retrospect, this researcher would actively endeavour to begin the interviews very early in the research process. Contact and interaction with the research subjects is key to understanding the fundamental nature of a research problem. In addition, it provides a different perspective on the needs of the study and insights on what achievements are truly possible. This researcher's opinion is that the day that contact with the subjects begins is the true start of the research. Although much preparation is carried out, the research does not actually become real until the data-collection process is activated.

In respect of Dooyeweerd, it should be said that his work could not be described as easy to read, but parts of his philosophy are very practical as can be seen in this study. The utilisation of the aspects has provided a framework to aid the collection of information from a specific group. The reader will recall from The Study – chapter 5 and Research Findings - chapter 8, that the utilisation of aspects has aided the interviewees and researcher in the interview process allowing a wide range of information to surface in regard to a specific group. In particular here everyday experience has been seen as relevant. The guiding nature of the Suite of Aspects even overcame partial misrepresentation by the researcher showing that the kernel meanings of the aspects are grasped by intuition. The sturdiness of the aspectual framework aided the management of change when interviewees were unable to relate to the first model (M.A.K.E.). In addition it provided a non-dominant interview process which gives credence to the everyday information which has surfaced as important to many mature

students. The M.A.K.E. and M.A.I.T models provided a way of presenting the aspects to mature students at different levels of understanding. Each provided a referencing system of statements to aspects and potential meaning therein.

9.9 Conclusion

Dooyeweerd's aspects were found to be of relevance and of paramount importance in this study due to the fact that they enabled an interview process which did not necessitate the dictation of question (Methodology – chapter 4, section 4 and 6) The Suite of Aspects which underlies both interview techniques implemented in this study met the criteria of providing information about mature students studying I.T./I.S., providing particular information about what is important to these students and also provided an alternative interview framework which the research findings show was acceptable/adaptable in gaining information from mature students.

The argument here is that the Suite of Aspects which is the basis for the Multi-Aspectual Knowledge Elicitation (M.A.K.E) and the Multi-Aspectual Interview Technique (M.A.I.T.), provides a practical alternative to the traditional question and answer technique applied in most qualitative research studies. To this end, the discussion in this chapter has centred on the way in which the interviews have been utilised and how they have provided information.

A specific research goal was to gain information about what is important to mature students and there is a particular difference here between discovering expertise (that which is known) and discovering 'what is important' or aspirations/potentialities which is often verging on the 'unknown'. However, two very different groups of mature students provided a high level of information about aspirations and potentialities via the two separate aspectual models, denoting the aspects as encouraging in this sense. In addition, thoughts in regard to information technology and information systems were gained as was data about being a mature student.

When interviewing the group of university students the format proceeded as planned but when attempting to interview the group of college students

difficulties arose. The students were uncomfortable with the research process expecting it to be a list of questions to answer. They were not able to provide concepts and did not grasp the way in which they could relate information to aspects. In a practical sense one reason for college students not going through the process of defining concepts and building aspectual maps may be because they didn't feel they had to, while University students learn about research frameworks and perhaps feel they need to prove their understanding of such, or even feel under pressure to do so.

It has been previously noted that the question of an appropriate way to gather the information was that which eventually defined the whole PhD project and so it did. It is true to say that necessity being the mother of invention gave rise to the preparation of a method which would enable those who were unable to relate to the M.A.K.E (Multi-Aspectual Knowledge Elicitation) process an alternative in M.A.I.T (Multi-Aspectual Interview Technique).

Due to not wanting to abandon the group of mature students at the further education college, and the information which they may relate, it became necessary to change the process from M.A.K.E (Multi-Aspectual Knowledge Elicitation) to M.A.I.T (Multi-Aspectual Interview Technique). Specific obstacles to overcome were their expectations of questions, the frameworks' dependence on concepts and how to relate information to aspects. Due to these needs aspectually informed statements emerged which the interviewees were happy to comment on and keywords rather than aspectual names were referred to. Interviewees naturally spoke about their experiences and future hopes. Their thoughts and ideas came through in discussion without having to compel them to denote concepts. The M.A.K.E model implements the spatial activity of drawing a map of information with concepts and links within aspects. While this was possible with the university students it was not a natural process for the college students and therefore maps were not utilised. However, this encouraged closer inspection of the maps and the researcher now suggests that there is no additional information in the maps provided by the university interviewees than that which is already provided in the transcripts. This researcher found that statements informed and structured through the aspectual suite work in a similar way to

mapping concepts and links. It could be said that when mapping concepts and links you are making aspectually defined statements. This would explain why no additional information appears to be present in the maps of the previous interviewees.

It can be seen that the aspects would be a structure useful to the design of research interview questions. While previous research (Winfield 2000) has shown the aspects to be useful when interviewing experts who easily provide links and concepts within the Multi-Aspectual Knowledge Elicitation process, this research shows the adaptability of the aspectual format and its usefulness when providing guiding statements for those interviewees who do not readily relate to research frameworks, concepts and relationships.

This work shows that the Aspects cover all areas of everyday life helping to build a multi-aspectual picture of the mature student experiences. Although Dooyeweerd does not suggest that all aspects are accounted for this researcher has yet to detect any additional aspects. The framework has shown itself to be a non-confrontational tool which lends itself to easy adaptation. When the researcher was concerned that interviewees would feel discouraged when they were unable to relate to the process of single concepts it was a straightforward matter of simply defining the aspects and allowing the interviewees to talk around the aspects with a few guide statements when appropriate.

It has been seen that the concept-building and relationship-making criteria of the M.A.K.E model provided a wide range of information, as did the guide statements and no-concepts process of M.A.I.T. Each process being as thought provoking as the other and both allowing for varied data-collection, the underlying structure of both procedures is the Theory of Aspects, which this researcher believes provides a continuity and co-ordination for the interview process.

Chapter Ten

Conclusion

10.1 Introduction

This study has taken as its theme, the experiences of mature students who study I.T./I.S. and how it is most appropriate to gain information regarding these experiences. In order to follow this path, the Suite of Aspects was utilised to gather a wide range of information about two specific groups of mature students. When the researcher began to consider the task of gathering information for this study, an appreciation of the Suite of Aspects in Dooyeweerd's Philosophy and the M.A.K.E. model became likely candidates due to the possibilities the aspects afforded and M.A.K.E.'s previous use in research interviews. However, the needs of the interviewees in the second phase made it obvious that a different technique had to grow from the original plan. In this chapter, the summation of the whole research project and conclusions derived from this are presented.

10.2 The study, main areas and contributions to knowledge

The researcher now addresses the main issues that opened the thesis in the Introduction chapter.

Here the Aspectual Suite has been presented in the form of the M.A.K.E. and M.A.I.T. interview models. The case has been made that such a process is an aid to providing a fuller picture of the mature student experience in Information Technology and Information Systems education. However, the researcher also considers that it may also prove to be important in the general use of interview formats and particularly for methodologies that depend greatly upon interview data. Facts and emotions are represented through the aspects providing a place for both factual information and the perception or insights of the interviewees. The researcher has made specific note that this process has provided a way to find out about the experiences of these students by encouraging the mature student interviewees to consider a wide range of issues in their everyday lives, provide a form of 'grounded' theory, that is, emergent generalisations occurred which confirmed the research focus, provided a non-dominant interview alternative and provided the researcher with a method of tracking or paper trail to

aid the hermeneutic assessment of the data and a guide within the interview situation itself. Therefore this is an alternative format from which to guide the interview process and a supporting framework to help substantiate a method (the interview) which is used so widely when collecting research data. There were three main areas of the work which sought contribution and the understanding of these three areas is important to the overall conclusion for this work.

10.2.1 Area of research importance and contribution to knowledge – Notion of Aspects.

In understanding this area of importance it was necessary for the researcher to consider alternatives in gathering information regarding mature students. It had to be decided whether individual interviews would be the better alternative and a consideration of the aspectual suite was necessary for its ability to gain the wide range of information required for this study. As this was the case the researcher presented the suite of aspects as a communicative framework for interviewing students. As was previously noted the Multi-Aspectual Knowledge Elicitation model is based on the aspectual format and has been used in research interviews prior to this.

So, how did the aspectual suite aid the process of a qualitative interview in gaining a wide range of information in a coherent manner? The particular advantage of the aspects for this research is the irreducibility of the aspects which means that each aspect is a sphere of meaning in its own right, while this is the case, each is interrelated to every other aspect in the suite, constituting a wide range of communication. This provision of individual meaning and a wide-ranging commentary is given coherence by the interdependency which flows through the suite of aspects as a whole. In a practical sense this means that each aspect which is commented on by the interviewee has individual relevance (they perceive the information to belong in that aspect) and provides greater reflection by the individual. Irreducibility provides the importance and necessity of each aspect while the interrelatedness of aspects allows relationships to be made as and when the interviewee sees fit to do so. Interdependency provides a holistic approach to information gathering as comments, relationships and narratives prevent reductionism and allow a rich content of information.

10.2.1.1 Area of contribution – Aspects in research.

'The notion of Aspects' addresses the usefulness of the aspects for qualitative research, particularly when considering everyday experience and grounding a wide range of information. This is a contribution to the theory behind interview research.

10.3   Area of research importance and contribution to knowledge – ways of finding out what is important to mature students.

It was necessary to consider how to approach and communicate with the two groups of mature students in a way that would allow a range of information to be collected within a relaxed atmosphere. Observations and conversations with mature students led the researcher towards the interview method.

When considering the interview process it was necessary to delineate what was required of it. This researcher particularly wished to avoid dominating the interview situation in both the environment and in the interview technique. Therefore the meeting places were neutral territory (not an unfamiliar area to the student) and the interview format was not dictated by questions which limit the potential answers of the students. The specific research goal to gain information about what is important to mature students is very different to discovering expertise which is wide-ranging, sometimes ill-structured knowledge based on what people already know, 'what is important' or aspirations are wide-ranging ill-structured knowledge based on possibilities or potentialities.

10.3.1   Area of contribution – Aspectual interviews; finding out about mature students.

The usefulness and applicability of aspectual interviews is represented here, this is particular to mature student interviews in this instance. But also shows possible amendments for different levels of experience and understanding. . Therefore there is a contribution to the area of aspectual interviewing as a method. This is a contribution to furthering the application of M.A.K.E. and the Suite of Aspects.

10.4 Area of research importance and contribution to knowledge – mature students studying I.T.

In attempting to explore mature students studying I.T., the vastness of the research situation could have been daunting. However, it is also important not to discount outlying issues as unimportant. As Information Technology and Information Systems are now a part of most daily lives and cultural experiences, I.T. and I.S. are firmly implanted in our literature and culture.

When seen as an appendage I.T. is hardly likely to be viewed with a strong vocational element. However, there are individuals who enter the study of I.T. and I.S. with the vision of becoming an I.T./I.S. professional and following this type of career for the remainder of their working life. The word vocation is often declared only in accordance with careers that once suggested a dedication to duty such as nursing or the priesthood. However, the philosopher John Dewey (1999) suggests that a vocation can be anything that holds strong significance for the individual, therefore vocation is considered through individual perception. Certainly modernity has seen a clash against references of the word vocation in some circles such as nursing where it is not the wish to be defined as administering angels in the vocational sense but far more as health professionals placing the focus on the professional 'career' rather than the personal 'carer' element. This view allows professions such as I.T. to be considered as vocational if the individual feels such a dedication to the area of work.

While mature students may not be as vocal as the younger adult students when making statements about 'what they want to do' after graduation, the importance of this is not lost on them. It should be remembered that they may have given up full-time employment to follow their educational path in order to create better prospects for themselves and their families. Such responsibilities to themselves and their dependents are extremely important factors in their motivation to persist and to achieve. All the complexity of their wide-ranging lives to date combined with their hopes and aspirations suggest that it is significant research to collect the gamut of their experiences and reflections on everyday life in a coherent way.

Information Technology and Information Systems are interdisciplinary in that while they are specific disciplines they also provide necessary skills for our everyday lives. As such, they may be studied in total or to attain skills to benefit other disciplines, professions and everyday life. The UK Government has backed initiatives toward I.T. qualifications for adults and I.T. is now an obligatory part of access to university courses, which guide mature students into Higher Education. Therefore, whether as a mature adult returner to education you choose to study I.T. as a main discipline or not, at a certain level you will be studying I.T.

10.4.1 Area of contribution – mature students studying I.T.

There is a lack of research into mature students in I.T. even though it is noted by the Education and Skills Government Department as a preferred subject by mature students (Ross et. al 2002), and the UK Government are attempting to encourage adult learners toward I.T. through qualifications such as ECDL. The information from this study contributes to the limited research which specifically focuses on mature students in I.T. and additionally to factors relating to widening participation issues in adult education

10.5 The three main areas and secondary contributions

The three main areas of contribution to knowledge made in this thesis are noted above. Also contributions are made via the discussion as to the usefulness of aspects in GT. This research has shown that interviewees can be given the freedom to talk about all aspects of their lives in which ever way they feel is appropriate. While aspects can be seen as categories such as those in Grounded Theory (Glaser & Strauss 1968), they need to be much more than elements suggested by the rate of repetition. An understanding of the relevance of each aspect may support a fuller understanding of the information provided. An additional point here in relation to the level of repetition is in knowing when enough information has been stated about a particular category or when greater detail should be pursued. Historically, researchers have followed the process of theoretical saturation, that is, when an accepted point or category no longer unearths different responses, theoretical saturation is judged to have been

reached. The use of aspects in this way provides insights into the way in which it may aid the practice of GT.

The three main contributions are noted more specifically here because as part of this conclusion the researcher wishes to show the progress of each part of the research on the next. That is, because a contribution was made in considering the notion of aspects in research, this led to the assessment of the aspects as a qualitative interview process which in turn provided a contribution to ways of finding out about mature students. This in turn led to a contribution in that which was discovered about mature students in I.T.

10.6 Review of the study

This process involved two groups of mature students, one in Further Education and one in Higher Education. Due to problems which occurred with the interview procedure it came about that the Higher Education students were interviewed via the M.A.K.E. model and the Further Education students were interviewed via the M.A.I.T model. Therefore some differences in the data may be attributed to this fact. That is, Further Education versus Higher Education. However, both M.A.K.E. and M.A.I.T. are structured from the foundational framework provided by Dooyeweerd's Aspects, this showing both the strength and adaptability of the suite of aspects when gaining a wide range of information from any group. The pilot interviewees who were originally interviewed via M.A.K.E. were also interviewed by M.A.I.T, showing that either model can be utilised in some cases. However, the students interviewed via M.A.I.T because of their difficulties with M.A.K.E., could of course not be interviewed in both ways, so no specific comparison can be made in regard to this at this time. However, research into how the M.A.K.E. model could be presented differently may allow a comparison and this would be a consideration for further research. This work never aimed to be a comparative study of Further versus Higher education or of the M.A.K.E. and M.A.I.T. models. This is an exploratory study of the aspectual suite which underlies both models, and of whether the suite gains a wide range of information so as to allow the researcher to build a rich picture of mature students studying information technology/information systems.

The aspectual suite is the underlying structure of all the interviews in this work and thus shows that as carriers, both M.A.K.E. and M.A.I.T. have potential to transport the aspects to an audience of differing educational levels within the same subject, they having no prior knowledge of Dooyeweerd's Philosophy or the Theory of Aspects. It also has the potential to provide a guide to everyday experiences which may not have previously been given credence. Even more, the researcher presents the usefulness of the aspects as a tool for other researchers when contemplating what may not have been addressed when gathering information or constructing interview questions. While proof in the positivist sense is not attempted here, a consideration that the information given was wide-ranging and relevant within a non-dominant and encouraging environment promoted by the interview format is claimed. While it should be repeated that this is not a comparison, a consideration of whether this provides an alternative to the historically acceptable question and answer format of interviewing is valid. Though proof is not attempted, it can be stated that there is reason to believe that the aspectual interview format provides a different experience for respondents. They are placed in control, that is, they were not dictated to either by questions or subject, they reference information to the aspects providing additional thought and self-reflection, and their everyday experiences are given credence. Evidence of whether or not this would happen in a question-based or narrative format can only be specifically judged by comparison and therefore would be an interesting area of further research. However, even if question and answer interviews are posited as providing such elements, comments are not referenced by the interviewee to the aspects. Therefore, this is a unique form of gathering information with the additional self-reflection upon the individual's own meaning within specific sections of their commentary.

10.7 Suggested further research

The researcher presents the Suite of Aspects as a useful and practical framework which could have much more to offer than has been explored to date. Therefore, possibilities of further research leading on from this study are now suggested.

10.7.1 Comparing Aspectual Interviews and other interview styles.

As noted earlier, the aspectual interview format allows the interviewee increased control, rather than the assertion which can often come about via the question and answer interview format. Referencing information to the aspects provided additional thought and self-reflection on the part of the interviewees. How this compares strictly to question-based or narrative formats, would be a useful area for further research towards showing a comparative analysis. This could also be the case in a comparative study of focus group interviews, with and without aspects.

10.7.2 Designing interview questions

In addition, aspects are a structure with potential for the design of research interview questions. As it is unlikely that the historically acceptable and natural act of asking questions to gain information will change, this area of work would be a useful next step in researching aspects as relevant in qualitative interviews. The use of the aspectual framework to inform question design would be of interest as it would prompt the researcher to check that all aspects are covered in the questions. In doing so, the aspectual suite allows full consideration of each question and would point to gaps or missing questions.

10.7.3 Different applications of the M.A.K.E. model

Also noted throughout this research is the problem which came about when the college students could not interact adequately with the M.A.K.E. model. It would be of use to assess a variety of different representations of the M.A.K.E. model in order to consider whether there was a way in which the researcher could have used the same model in both situations.

10.7.4 The Aspects influencing patterns of data-collection

As this research was not a comparison, no specifics can be drawn from the elements that may portray pattern matching behaviour or in fact whether or not this is due to the influence of the underlying Suite of Aspects. However, the researcher suggests that this would be an interesting line of investigation for further research. Strict comparisons would be necessary, but under such conditions the way in which the Suite of Aspects perhaps allows

commensurability even through differing applications of the interview process would allow some assessment of the strengths and weaknesses as a comparison.

10.7.5   Recognising the importance of I.T./I.S.

This work never aimed to be a comparative study of university and college students, however the difference of relationships to I.T./I.S. of these two groups, showed the missed opportunity of those studying non-I.T. disciplines.   The researcher would be very interested to explore why I.T. is not utilised in a more pro-active way by students in other subject areas, given the usefulness of I.T. in education and also the value put on I.T. skills in many professions. This may be related to the way in which I.T. is taught and the culture of the learning environment or it may be part of a far wider context. I.T. and I.S. at a social level have provided chat rooms, on-line banking, shopping and dating, search engines, e-mail, information, misinformation and in the line of modern skills which appear with ever-increasing fervour as necessities are databases, spreadsheets, web page design, multi-media presentations, distributed networks, computer-assisted group working along with the basics such as word processing. Mature students as returners to further and higher education were not nurtured alongside computers but still they live and work in this technological world. The relevance or not of I.T./I.S. to mature students in other areas may provide pointers to where the focus of I.T./I.S. should be for these individuals and perhaps show how I.T./I.S. as a subject can engage with other disciplines, professions and vocations via a different route.

In addition, the researcher would be interested in researching ageism in the workplace in regard to mature graduates wishing to enter I.T./I.S. professions. While it is stated here that I.T. is noted as a preferred subject for mature students they may face an industry which discriminates against them.

10.8   Conclusion

It is likely that the mature students of the future will still look to further and higher education to fill the I.T./I.S. skills gap. By its very nature, technology whether information or otherwise, is ever-changing. Therefore knowledge of the area is subject to regular updating. As such, this researcher suggests that I.T./I.S.

in particular is one subject which may always attract a mature student contingent which makes the experiences of these individuals worthy of investigation. Advances in the workplace are likely to promote the continuing education and lifelong learning elements of information technology so that individuals can continue to progress in the majority of work environments. In addition there is relevance in highlighting the lack of recognition given to the use of I.T. by mature students in the pursuit of other subjects. While the practical use of I.T. is given place in Further Education access courses as a necessity, the relationship between I.T. and its usage as important to the learning process and as a life-long learning advantage in any future profession is often not recognised by the student concentrating on professions other than those which are designated specifically as I.T./I.S. disciplines.

This research presents the Suite of Aspects (Dooyeweerd 1984) via the M.A.K.E. and M.A.I.T. interview models and shows that the aspects provide a wide-ranging picture of the mature student experience in Information Technology and Information Systems education. However, it may also prove to be important in the general use of interview formats and particularly for methodologies that depend greatly upon interview data. Facts and emotions are represented through the aspects providing a place for both factual information and the perception or insights of the interviewees. The aspectual suite engages with firstly what is expected and in addition to this expands, placing things in a wider context. It is a framework which encourages interviewees to consider a wide range of issues and provides researchers with an alternative and supporting framework to help substantiate the interview process which is used so widely when collecting research data.

It has been shown here that aspects aid the interviewee and the researcher as interviewer. The aspects specifically allowed a wide range of aspectual referencing of information from a particular group. Also the aspects allowed everyday life experience to be seen as relevant and important at the same time avoiding a reductionist pattern of data-collection (see Discussion – chapter 9, section 9.4).

In addition the guiding strength of the Suite of Aspects can be appreciated when we are reminded that even the misinterpretation of aspects did not sway the interviewees from the kernel/core meanings (see Analysis Section Two - chapter 7, sections 7.3, 7.3.1, 7.3.2, 7.4). From the perspective of the researcher the Suite of Aspects also aided the management of change which was necessary to accommodate a different level of understanding in the interview process. The guidance inherent in the Suite of Aspects also provided a non-dominant, emancipatory interview environment (Discussion – chapter 9, sections 9.4 and 9.7). This environment gave credence to a range of everyday information which enabled the mature students in relating 'what is important' to them through their lives and educational experiences, showing that such integrated elements can not be split apart.

The M.A.K.E. and M.A.I.T models as carriers of the Suite of Aspects provided formats which gained a wide range of information from two groups of differing levels of understanding, promoting the Suite of Aspects (the underlying framework of both) as a strong, enabling and guiding framework which allowed the stories of the mature students not only to be recorded but to have a form of referencing system to possible underlying intuitive meanings in their statements and choice of referencing in the aspects. While previous research has indicated the needs and interests of mature student groups (see Existing Bodies of Knowledge – chapter 2), previous work of this nature has not been carried out in particular relation to mature students studying Information Technology and Information Systems. Therefore, the Suite of Aspects in this instance has specifically enabled an under-represented group to communicate their stories secure in the knowledge that their everyday experiences are given credence alongside any professional and theoretical comments.

The full potential of the Suite of Aspects is yet to be revealed by further research. However, this research has shown how the Suite of Aspects provides an interview format that is emancipatory and enabling in nature. This especially here, is in the service of an under-represented group who may not have had the opportunities or inclination to otherwise voice their opinion.

References

Adam, A. (2001). "Computer ethics in a different voice." <u>Information and Organization</u> 11 (4): 235-261.

Allan, G. (2003). "A critique of using grounded theory as a research method." <u>Electronic Journal of Business Research Methods</u> 2(1).
Available at: < http://www.ejbrm.com/ > [Accessed 11/05]

Allsopp, L. (2002). "Teaching and Learning in First Year Seminars." <u>Journal of Information Technology Education</u> 1(1): 1-10

Argyris, C. (2005). Theories of action, double-loop learning and organizational learning. <u>infed</u>. Available at: <http://www.infed.org/thinkers/argyris.htm> [Accessed 11/05]

Argyris, C. and D. Schon (1978). <u>Organizational learning: a theory of action perspective.</u> London, Addison-Wesley.

Arulampalam, W., Naylor R.A., Smith, J.P. (2004). "A hazard model of the probability of medical school drop-out in the UK." <u>Journal of the Royal Statistical Society: Series A (Statistics in Society),</u> 167(1): 157-178.
Available at: <www.ingentaconnect.com> [Accessed 11/05]

Austin, S., Jefferson, T., Thein, V. (2003). "Gendered Social Indicators and Grounded Theory." <u>Feminist Economics</u> 9(1).
Available at: <http://www.tandf.co.uk/journals> [Accessed 11/05]

Avgerou, C. (2000). "Information systems: what sort of science is it?" <u>OMEGA - The International Journal of Management Science.</u> 28: 567-579.

Avison, D. (2003). "Is IS an intellectual subject?" <u>European Journal of Information Systems.</u> 12 (3): 229-230.

Bacon, C. J. and B. Fitzgerald (2001). "A Systemic Framework for the Field of Information Systems." The DATA BASE for Advances in Information Systems. 32(2): 46-67.

Barnett, R. (1997). Higher Education: A Critical Business. Buckingham, UK, SRHE and Open University Press.

Basden, A. (2002). "The critical theory of Herman Dooyeweerd?" Journal of Information Technology. 17(4): 257-269

Basden, A. (2002). "A philisophical underpinning for I.S. Development." European Conference on Information Systems, Gdansk, Poland., ECIS.

Basden, A. (2004). Why Dooyeweerd's Suite of Aspects ? Salford, Grt. Manchester. Available at: <http://www.isi.salford.ac.uk/dooy/suite.html> [Accessed 11/05]

Basden, A. and Wood-Harper. A.T. (2002). "A philosophical enrichment of CATWOE". ANZSYS 2002, Australia and New Zealand Systems Conference, 10-12 Dec 2002,, University of Sunshine Coast, Queensland., ANZSYS.

Baskerville, R. L. and Myers, M. D. (2002). "Information Systems as a Reference Discipline." MIS Quarterly 26(1): 1-14.

Beasley, M., Thompson, T., Davidson, J., (2003). "Resilience in response to life stress: the effects of coping style and cognitive hardiness." Personality and Individual Differences. 34(1): 77-95.

Bennetts, C. (2003). "Self-evaluation and self-perception of student learning in person-centred counselling training within a higher education setting." British Journal of Guidance and Counselling. 31(3): 305-323.

Bloom, B. (1956). Taxonomy of Educational Objectives: Handbook 1, Cognitive Domain. London, Longmans Group Ltd.

Bolam, H. and Dodgson, R. (2003). "Retaining and Supporting Mature Students in Higher Education." Journal of Adult Continuing Education 8(2): 179-194.

Brenner, M. (1981). Social Method and Social Life. London, Academic Press.

Briggs, C. L. (1986). Learning how to ask. London, Cambridge University Press.

Brine, J. and Waller. R. (2004). "Working-class women on an Access course: risk, opportunity and (re)constructing identities." Gender and Education 16(1): 97-113.

Bryant, A. (2002). "Grounding Systems Research: Re-establishing Grounded Theory." IEEE. Available at: <http://search2.computer.org/advanced/simplesearch.jsp> [Accessed 11/05]

Burke, P. (2004). "Women accessing education: subjectivity, policy and participation." Journal of Access Policy and Practice 1(2): 100-118.

Burrell, G. and G. Morgan (2000). Sociological Paradigms and Organisational Analysis. Aldershot, UK., Ashgate Publishing Limited.

Cantwell, R., Archer J., Bourke, S., (2001). "A Comparison of the Academic Experiences and Achievement of University Students Entering by Traditional and Non-traditional Means." Assessment and Evaluation in Higher Education 26(3): 221-234.

Cantwell, R. H. and Grayson R. (2002). "Individual Differences Among Enabling Students: a comparison across three enabling programmes." Journal of Further and Higher Education 26(4): 293-306.

Carroll, J. M. (1998). Mimimalism Beyond the Nurnberg Funnel. Massachusetts, USA., Massachusetts Institue of Technology.

Carroll, J. M. (2002). "Making use is more than a matter of task analysis."
Interacting with Computers 14: 619-627.

Castells, M. (1996). The rise of the network society. Cambridge, Mass.,
Blackwell Publishers.

Checkland, P. (2000). Systems Thinking, Systems Practice: includes a 30 year
retrospective. Chichester, John Wiley.

Chur-Hansen, A. (2003). "Mature-aged medical students: a qualitative study."
Learning in Health and Social Care, 2(3): 159-168.

Cicourel, A. (1973). Cognitive Sociology - language and meaning in social
interaction. London, Penguin Education.

Clouser, R. (2001). The Myth of Religious Neutrality. Notre Dame, University of
Notre Dame Press.

Coates, J. (1993). Women, Men and Language. Essex, England., Longman
Group UK Limited.

Computing (2004). I.T. is as essential as the 3 R's, vnu buisness publications.
Online Magazine. Available
at:<http://www.computing.co.uk/comment/1158888> [Accessed 11/05]

Davies, P., Williams, J., (2001). "For Me or Not for Me? Fragility and Risk in
Mature Students' Decision-Making." Higher Education Quarterly 55(2): 185-203.

Davis, G. (2004). Advising and Supervising Doctoral Students: Lessons I Have
Learned. IFIP WG8.2 and WG9.4. Athens, Greece. 2005. Available at:
<http://misrc.umn.edu/workingpapers/fullpapers/2004/0412_052404.pdf>
[Accessed 11/05]

Dawson, R. J. Newman, I.A. (2002). "Empowerment in IT Education." Journal of Information Technology Education 1(2): 125-140.

de Cogan, D. (2005). Mature Students; the transfer problem. Available at: <http://www.hull.ac.uk/engprogress/Prog1Papers/UEAdeCogan.pdf> [Accessed 11/05]

de Vries, M. (2003). Philips Plumbicon as a Technical Artifact. Towards a New Interdiscipinarity, CPTS, Maarssen, Holland., CPTS. ISBN 90-807718-2-1

de Vries, M. (2005). "Analyzing the Complexity of Nanotechnology." Techné: Research in Philosophy and Technology 8(3). Available at: <http://scholar.lib.vt.edu/ejournals/SPT/v8n3/devries.html> [Accessed 11/05]

Denzin, N. K. and Y. S. Lincoln (1994). Handbook of Qualitative Research. London, Sage Publications Ltd.

Denzin, N. K. and Y. S. Lincoln (2000). Handbook of Qualitative Research. London, UK, Sage Publications Inc.

Dept. of Education and Skills (2003). Success for all. London, Dept. Education and Skills - UK Gov. 2005. Available at: <http://www.successforall.gov.uk/downloads/ourvisionforthefuture-76-109.pdf> [Accessed 11/05]

Dewey, J. (1897). My pedagogic creed. infed. 2005: information on education archive. Available at: <http://www.infed.org/archives/e-texts/e-dew-pc.htm> [Accessed 11/05]

Dewey, J. (1999). Democracy and Education. Champaign, Illinois, USA., Project Gutenberg. 2005. Available at: <http://www.netlibrary.com> [Accessed 11/05]

Dewey, J. (1998). Experience and Education, West Lafayette, Ind. Kappa Delta Pi.

Dooyeweerd, H. (1984). A New Critique of Theoretical Thought. Ontario, Canada, Paideia Press Ltd.,

ESRC (2001). Interviewing Children and Young People. Interviewing Children and Young People. E. F. S. Series. Birmingham, University of Birmingham - School of Education. 2005. Available at: <http://www.education.bham.ac.uk/research/esrc2/default.htm> [Accessed 11/05]

Fitzgerald, G. (2003). "Information Systems: a subject with a particular perspective, no more, no less." European Journal of Information Systems, 12: 225-228.

Foddy, W. (1993). Constructing Questions For Interviews And Questionnaires - theory and practice in social research. Cambridge, Cambridge University Press.

Foucault, M. (1980). Power/knowledge: selected interviews and other writings. London, Harvester Wheatsheaf.

Fowler, J., Floyd, J., (1988). Survey Research Methods. London, SAGE Publications Ltd.

Freire, P. (1985). The Politics of Education - culture, power and liberation. London, MacMillan Publishers Ltd.

Freire, P. (1996). Pedagogy of the Oppressed. London, Penguin Books.

Gardner, F. (2001). "Social Work Students and Self-awareness: how does it happen?" Reflective Practice 2(1): 27-40.

Given, L. M. (2002). "The academic and the everyday: Investigating the overlap in mature undergraduates' information–seeking behaviors." Library & Information Science Research 24: 17-29.

Glaser, B., Strauss, A., (1968). The Discovery of Grounded Theory. London, Weidenfeld and Nicolson.

Goodale, J. G. (1982). The Fine Art of Interviewing. London, Prentice-Hall International, Inc.

Gorard, S., Selwyn, N., Madden, L., Furlong. J., (2002). Technology and lifelong learning: Are we cutting IT? 'All-Wales Education Research' Conference,, University of Wales Conference Centre, Gregynog,, University of Cardiff.

Green Lister, P. (2003). "'It's like you can't be a whole person, a mother who studies'. Lifelong learning: mature women students with caring commitments in social work education." Social Work Education 22(2): 125-138.

Green, S. (2003). Widening Participation: Mature Entry to Full-time Higher Education in the UK. The Higher Education Academy. 2005: Briefing Report. Available at:
<http://www.heacademy.ac.uk/resources.asp?process=full_record&section=gene ric&id=321> [Accessed 11/05]

Griffioen, S., Balk, B.M., (ed) (1995). Christian Philosophy at the Close of the Twentieth Century. Holland., uitgeverij kok - Kampen.

Gubrium, J. F., Holstein, J.A., (ed) (1997). The New Language of Qualitative Method. Oxford, Oxford University Press.

Gubrium, J. F., Holstein, J.A., (ed) (2002). Handbook of Interview Research: Context and Method. London, Sage Publications Ltd.

Harrison, N. (2002). Grounded Theory or Grounded Data? Armidale, Australian, Harrison. 2005. Available at:
<http://fehps.une.edu.au/Education/staff/nHarrison/attachment_c.pdf> [Accessed 11/05]

Hatt, S., Baxter, A., Kimberlee, R. (2002). "'It's our last chance'— A study of completion rates by age at an English University." Journal of Adult Continuing Education 8(1): 88-103.

Helberg, A., Goede, R., Strijbos, S., (2003). Some Reflections of the Digital Divide and the Applicability of Systems Thinking for Modelling Solutions. Towards a New Interdisciplinarity, CPTS, Maarssen, Holland., CPTS. ISBN 90-807718-2-1

Hirschheim, R. and Klein H.K. (2003). "Crisis in the IS Field? A critical Reflection on the state of the Discipline." Journal of the Association for Information Systems 4(5): 237-293.

Hollway, W., Jefferson, T. (2001). Doing Qualitative Research Differently. London, SAGE Publications Ltd.

Holmes, A. F. (1971). Christian Philosophy of Science: An Unfinished Business. Illinois, USA., Journal of the American Scientific Affiliation. 2005. Available at: <http://www.asa3.org/ASA/PSCF/1971/JASA3-71Holmes.html> [Accessed 11/05]

Holmes, D. (2002). "Eight years' experience of widening access to medical education." Medical Education 36(10): 979-984.

Holstein, J. A. and J. F. Gubrium (1995). The Active Interview. London, Sage Publications Inc.

Honey, M. and Botterill, D. (1999). "Mature students in danger: An evaluation of the survival of older hospitality management undergraduates in the UK." International Journal of Hospitality Management 18: 3-15.

Houle, C. (1961). The Inquiring Mind. Madison, University of Wisconsin Press.

Houltram, B. (1996). "Entry age, entry mode and academic performance on a Project 2000 common foundation programme." Journal of Advanced Nursing 26: 1089-1097.

Huczynski, A. and D. Buchanan (2001). Organisational Behaviour. Essex, England., Pearson Education Limited.

Johnson, D. G. (2001). Computer Ethics. New Jersey, USA., Prentice Hall.

Jones, G. O., Basden, A., (2004). Using Dooyeweerdian Philosophy to Help Identify ISD Stakeholders. Interdisciplinarity and the Integration of Knowledge. CPTS, Holland, CPTS. ISBN 90-807718-2-1

Kahn, R. L., Cannell, C.F. (1957). The Dynamics of Interviewing. London, John Wiley & Sons, inc.

Kalsbeek, L. (1981). Contours of a Christian philosophy. Toronto, Canada., Wedge Publishing Foundation.

Keats, J. (1817). Poetry of John Keats (1795-1821). everypoet.com. 2005. Available at: <http://www.everypoet.com/archive/poetry/John_Keats/keats_the_human_seaso ns.htm> [Accessed 11/05]

Kell, C. and Van Deursen, R. (2000). "The fight against professional obsolescence should begin in the undergraduate curriculum." Medical Teacher 22(2): 161-163.

Kemp, R. H., Stewart, T., Fung, P.W., Orban, B., (2002). "Learning by Creating: Letting the Student Do the Work." Interactive Learning Environments 10(2): 121-138.

Kevern, J. and Webb, C. (2004). "Mature women's experiences of preregistration nurse education." Journal of Advanced Nursing 45(3): 297-306.

Kinman, G. and Kinman, R. (2001). "The role of motivation to learn in management education." The Journal of Workplace Learning 13(4): 132-44.

Kirk, J. and M. L. Miller (1986). Reliability and Validity in Qualitative Research. London, Sage Publications.

Klein, H. and Myers, M. (1999). "A set of principles for conducting and evaluating interpretive field studies in information systems." MIS Quarterly 23(1): 69.

Knowles, M. S. (1984). The Adult Learner: A Neglected Species. Houston, Texas, USA., Gulf Publishing Company.

Knowles, M. S. (1990). Andragogy in Action: Applying Modern Principles of Adult Learning. California, USA, Jossey-Bass Inc.

Knowles, M. S., Holton, E. F., Swanson, .R.A. (1998). The Adult Learner. Houston, Texas, USA., Gulf Publications Company.

Kohlera, V. and B. Bergvall-Karebornb (2004). Scope of Action as Interplay between Artifact, Usage and Context. IRIS27, Falkenberg, Sweden., IRIS.

Kolb, D. (1984). Experiential Learning: experience as the source of learning and development. New Jersey, USA., Prentice Hall.

Kuhn, T. (1970). The Structure of Scientific Revolutions. London, University of Chicago Press Ltd, London.

Learning and Skills Council (2005). Widening participation:Adult learners and the hard to reach: policy and strategy. London, UK Government - Learning and Skills Council. 2005 Available at:
<http://senet.lsc.gov.uk/guide2/wideparticipationpolicy/G2wideparticipationpolic yG101.pdf> [Accessed 11/05]

Lewin, K. (1951). Field Theory in Social Science. London, Associated Book Publishers.

Lieb, S. (1991). Principles of Adult Learning, VISION. Available at: <http://coe.sdsu.edu/eet/Articles/adultliteracy/index.htm> [Accessed 11/03]

Lucas, H. C. (1999). "The State of the Information Systems Field." Communications of the Association for Information Systems, 1(5): 1-6.

Lumb, A. B. and Vail. A. (2004). "Comparison of academic, application form and social factors in predicting early performance on the medical course." Medical Education 2004 38: 1002-1005.

Maguire, S. (2001). "Teaching Geography to Non-traditional Students: inducting, nurturing and retaining them." Journal of Geography in Higher Education, 25(2): 233-240.

Marks, A. (2001). "The Unravelling of a Sector: does the introduction of fees spell the end of education for all?" Journal of Further and Higher Education 25(2): 195-213.

Markus, L. (1999). Thinking the Unthinkable. Rethinking management information systems: an interdisciplinary perspective, W. Currie and B. Galliers (ed). Oxford, UK., Oxford University Press.

Maule, R. W. (1997). "Adult IT programs: a discourse on pedagogy strategy and the internet." Internet Research: Electronic Networking Applications and Policy 7(2): 129-152.

Maynard, M. and Purvis, J. (1994). Researching Women's Lives from a Feminist Perspective. London, Taylor & Francis.

Mead, M. (2005). Brainy Encyclopedia. Brainy Encyclopedia.com. 2005. Available at:

<http://www.brainyencyclopedia.com/encyclopedia/m/ma/margaret_mead.html>
[Accessed 11/05]

Merton, R. (1968). Social Theory and Social Structure. New York, USA., The Free Press.

Mezirow, J. (1991). Transformative Dimensions of Adult Learning. Sanfrancisco, California, USA., Jossey-Bass Inc., Publishers.

Milroy, L. (1987). Language and Social Networks. Oxford, UK., Basil Blackwell Ltd.

Mumford, E. (2001). "Advice for an action researcher." Information Technology & People 14(1): 12-27.

Murphy, H. and Roopchand, N. (2003). "Intrinsic Motivation and Self-esteem in Traditional and Mature Students at a Post-1992 University in the North-east of England." Educational Studies 29(2-3): 243-259.

New Oxford Dictionary of English Language (1998) Oxford University Press.

NIACE (1997). Adult Learning in an Information Society: a Policy Discussion Paper. NIACE Annual Study Conference in April 1997, Warwick, UK., National Institute of Adult Continuing Education Telematics Policy Group. Available at:< http://www.niace.org.uk/Research/ICT/telepap.htm > [Accessed 11/05]

Nijhoff, R. (2003). ICT, Innovation and Educational Identity. Towards a New Interdisciplinarity, CPTS, Maarssen, Holland., CPTS. ISBN 90-807718-2-1

Oppenheim, A. N. (2003). Questionnaire Design, Interviewing and Attitude Measurement. London, Continuum.

O'Shea, E. (2003). "Self-directed learning in nurse education: a review of the literature." Journal of Advanced Nursing, 43(1): 62-70.

Palmer, S. (2004). "Authenticity in assessment: reflecting undergraduate study and professional practice." European Journal of Engineering Education, 29(2): 193-202.

Patton, M. (1990). Qualitative Evaluation and Research Methods. London, Sage Publications, Inc.

Pau, A. K. H. and Croucher, R. (2003). "The use of PBL to facilitate the development of professional attributes in second year dental students." European Journal of Dental Education, 7(3): 123-129.

Pauleen, D. J., Marshall, S., Egort, I.. (2004). "ICT-supported team-based experiential learning: classroom perspectives." Education and Training 46(2): 90-99.

Payne, G. and Payne, J. (2004). Key Concepts in Social Research. London, SAGE Publications Ltd.

Payne, S. (1951). The Art of Asking Questions. New Jersey, USA., Princeton University Press.

Perry, M. J. (2003). "(IS): Is information systems interesting in itself?" European Journal of Information Systems. 12: 231-234.

Peters, H. (2000). "Realising What I Truly Am. Mature Women Into Higher Education." Equal Opportunities International 19(2): 39-45.

Popper, K. R. (1972). Objective knowledge: an evolutionary approach. Oxford, Clarendon Press.

Reay, D. (2003). "A Risky Business? Mature Working-class Women Students and Access to Higher Education." Gender and Education 15(3): 301-317.

Reay, D., Ball, S., David, M. (2002). "'It's Taking Me a Long Time but I'll Get There in the End': mature students on access courses and higher education choice." British Educational Research Journal 28(1): 5-19.

Roberts, H. (ed). (1981). Doing feminist research. London, Routledge & Kegan Paul Ltd.

Rogers, C. and H. J. Freiberg (1994). Freedom to Learn. New York, USA., Macmillan College Publishing Co. Inc.,.

Ross, A., Archer, L., Hutchings, M., Gilchrist, R., Thompson, D., John, C., Akantziliotou, K. (2002). Potential Mature Students Recruitment to HE. London, Department for education and skills: 109. Available at: <http://www.dfes.gov.uk/research/data/uploadfiles/RR385.pdf> [Accessed 11/05]

Sayer, A. (1992). Method in Social Science. London, Routledge.

Schon, D. (2005). Learning, reflection and change. infed. Available at: <http://www.infed.org/thinkers/et-schon.htm> [Accessed 11/05]

Sewell, P. M. (2000). "Mature Students in Part-time Higher Education – Perceptions of Skills." Innovations In Education & Training International 37(4): 304-313.

Shanahan, M. (2004). "Does Age at Entry have an Impact on Academic Performance in Occupational Therapy Education?" British Journal of Occupational Therapy 67(10): 439-446.

Shepherd, I. D. H. (1998). "Work Experience: who needs it?" Jounal of Geography in Higher Education 22(1): 103-145.

Sidney, E. and Brown, M. (1968). The Skills of Interviewing. Whitstable, London., Tavistock Publications Ltd.

Silverman, D. (1987). Communication and medical practice: social relations in the clinic. London, Sage Publications Limited.

Silverman, D. (1998). Qualitative Research. Theory, Method and Practice. London, SAGE Publications Ltd.,.

Skinner, B. F. (1974). About Behaviorism. London, Penguin Group.

Somekh, B. (2000). "New Technology and Learning: Policy and Practice in the UK, 1980-2010." Education and Information Technologies 5(1): 19-37.

Somekh, B. (2001). "Methodological Issues in Identifying and Describing the Way Knowledge is Constructed With and Without Information and Communications Technology." Journal of Information Technology for Teacher Education, 10(1&2): 157 - 178.

Stanford Encyclopedia of Philosophy (2005). Georg Wilhelm Friedrich Hegel. Available at: <http:plato.stanford.edu/entries/hegel/#1 [Accessed 11/05]

Stebbins, R. A. (2001). Exploratory Research In The Social Sciences. London, UK., Sage Publications Ltd.

Stirling University (2005). Department of Philosophy. What is Philosophy? Stirling, Stirling University. Available at:< http://www.philosophy.stir.ac.uk/> [Accessed 11/05]

Stevens, G. (2003). "Late Studentship: Academic Aspiration, Personal Growth, and the Death of the Past." Journal of Phenomenological Psychology, 34(2): 235-256.

Tett, L. (2004). "Mature working-class students in an 'elite' university: Discourses of risk, choice and exclusion." Studies in the Education of Adults 36(2): 252-264.

Tough, A. (1979). The Adult's Learning Projects. Toronto, Ontario Institute for Studies in Education.

Training Reference (2005). SKILLS, training reference.co.uk. 2005: European Computer Driving Licence. Available at: < http://www.trainingreference.co.uk/skills/it_user/ecdl/ecdl.htm > [Accessed 11/05]

Trauth, E., Farwell, D., Lee, D. (1993). "The IS Expectations Gap: Industry Versus Academic Preparation." MIS Quarterly 17(3): 293-307.

Trotter, E. and Cove, G. (2005). "Student retention: an exploration of the issues prevalent on a healthcare degree programme with mainly mature students." Learning in Health and Social Care 4(1): 29-42.

UCAS (2005). News Release - Information. Latest figures for 2005 entry to UK higher education, UCAS.com. 2005. Available at: <www.ucas.ac.uk/new/press/news280405> [Accessed 11/05]

UCAS (2005) Annual datasets, UCAS.com 2005 Available at: <http://www.ucas.ac.uk/figures/ads.html> [Accessed 11/05]

Waller, R. (2004). 'I really hated school, and couldn't wait to get out!' Reflections on 'a wasted opportunity' amongst Access to HE students." Journal of Access Policy and Practice 2(1): 24-43.

Walters, M. (1996). Mature Students' experience of higher education: motivations, expectations and outcomes. Manchester, UK., Manchester University.

Walters, M. (2000). "The mature students' three Rs." British Journal of Guidance and Counselling, 28(2): 267-278.

Warmington , P. (2002). "Studenthood as Surrogate Occupation: access to higher education students' discursive production of commitment, maturity and peer support." Journal of Vocational Education and Training, 54(4): 583-600.

Warmington , P. (2003). "'You Need a Qualification for Everything these Days.' The impact of work, welfare and disaffection upon the aspirations of access to Higher Education students." British Journal of Sociology of Education 24(1): 95-108.

Waterman-Roberts, E. C. P. (1998). Higher education culture: a gendered approach. A study of mature women students on computing and related courses. Southampton, Southampton University.

Whitehead, A. N. (1955). The Aims of Education and Other Essays. London, Williams and Norgate Limited.

Wikipedia (2005). Wikipedia - the free encyclopedia, Wikimedia Project. 2005: Philosophy. Available at: <http://en.wikipedia.org/wiki/Heraclites> [Accessed 11/05]

Winfield, M. (2000). Multi-Aspectual Knowledge Elicitation. Information Technology Institute. Greater Manchester, University of Salford.

Wood-Harper, A. T., Corder, S., Wood, J.R.G., Watson, H. (1996). "How we Profess: The Ethical Systems Analyst." Communications of the ACM 39(3): 69-77.

Young, P. (2000). 'I Might as Well Give Up': self-esteem and mature students' feelings about feedback on assignments. Journal of Further and Higher Education 24(3): 409-418.

Appendix A

Multi-Aspectual Knowledge Elicitation (M.A.K.E.) model
Interview Documentation - Student Reference 9

- Interview Transcript
- Aspectual Map
- Concept Map

IT/IS student 9

The researcher explained the aspectual suite with simple references and added that the first five aspects may or may not be overtly evident but that the interviewee was at liberty to note any aspects. As the following discussion took place the researcher built the aspectual map in reference to the words of the interviewee. The map was in full view of the interviewee at all times.

Interview notes:

Researcher: "Why did you choose to study IT/IS"?

Interviewee: "It was a progression from the HNC (Higher National Certificate), but it all started with, my brother gave me this computer and I couldn't switch it on and that made me think I ought to learn especially because of the children at school. So, I thought I better enrol myself on a course and it started with a PDU which is a module in HNC. It was a bit more advanced than the basic and I managed that ok so then I enrolled on the HNC. There was no definite plan it was just I thought well I've achieved that and I'll try to achieve something a bit higher. It wasn't about doing it for a job with fantastic money. I was just doing it for me. I think when you're mature though you're more into that sort of thing really. You see it not just for a career but more of a learning opportunity".

Researcher: "So, if we put that information in the aspects, it all started with your brother giving you the computer which you couldn't work".

Interviewee: "Yeah, I suppose it's sensitive because it made me feel that I needed to learn. Also lingual because of understanding".

Researcher: "Then you were concerned about your children and using a computer".

Interviewee: "That is social".

Researcher: "So, the fact that you took a course and that lead on to a HNC and then the degree, does that fit into the aspects"?

Interviewee: "I'm not sure about that, is madness in there anywhere? No, I don't know about that one".

Researcher: "Ok, so as a mature student you think you are more realistic and it's not just about a job and money it's about the learning opportunity".

Interviewee: "Yeah, that's partly how you feel, so it's sensitive, and analytic, distinction. It's definitely not a necessity, it's not aesthetic".

Researcher: "If you think of this as a learning opportunity rather than a big career move, what's the most important thing you will gain from this"?

Interviewee: "Achieving a goal that I didn't think was within my reach, especially when I was eighteen. I didn't think I was clever enough to do a degree. I thought you had to be clever and now I look at some of these students and I wonder how they got here. Is that ethical, justifying it? Anyway, some of them don't look old enough, but mostly they don't seem to do anything and I don't know how they got through their A' levels. I think it was harder when I was at school because a lot of GCSE's are a lot of assignment work now. I think I'd have done a lot better with that. We didn't even have computers, I think they came in from the fourth year of school but we had a teacher who didn't know anything about it so nobody got a good mark because the teacher didn't know anything".

Researcher: "So, the most important thing for you is that you are achieving a goal which is something you couldn't do at eighteen. Where does that fit into the aspects"?

Interviewee: "Well, sensitive for my feelings, maybe analytic because of critical thought about myself".

Researcher: "Thinking about some of the differences you mentioned in relation to younger students, where would they fit in"?

Interviewee: "Well, they really do have a different attitude to work, they don't seem to get as stressed. They do a lot at the last minute, I'd have no chance if I did that. I don't know how they find time to party. I work and I've got two kids so the housework doesn't even get done. I'd love to stay at home and do housework and watch daytime TV".

Researcher: "Is that true? Because you can if you want to, it's your choice."

Interviewee: "Ah well, this is what I can't understand about some younger people. I think if you start something then you've got to do it. When I was at college a girl packed the course in a month before the exam. Why go through twelve months and then a month before pack it in? I just couldn't understand that, it's not logical reasoning. I would never like to look back say if I packed it in now, I wouldn't like to look back and wish that I'd carried on. I think you'd always regret it".

Researcher: "So, going back to younger students having a different attitude to work and not getting stressed. Does that fit into the aspects"?
Interviewee: "Sensitive and analytic, maybe part of culture as well, so formative. Definitely social the way they are, maybe a different kind of commitment, pistic. Maybe they plan differently and are committed in a different way rather than not at all. I was working with some younger students yesterday and one of them enjoys doing everything on the last minute and my brothers like that he'll just stay up all night until he's finished".

Researcher: "So, you are doing your degree and you work and you have two children as well"?
Interviewee: "Yeah, plus a husband, so you can say three children. So, that's social but commitment to the family which is pistic".

Researcher: "You made a point about starting something and feeling that you have to finish it".
Interviewee: "Yeah, pistic commitment but also sensitive because it's how I feel about it. Then its also analytic distinction which becomes a deliberate goal, formative. The other thing is that at the moment my work is beauty therapy, so people look at me and think because I do that, that I'm like thick, a bit stupid. I don't think they realise all the training that goes behind it. So, that's another reason, it's proving to other people that I'm not as daft as I look. Depending on your job I think people do look down on you. That's not the reason I started but now I think about it. Your job does make a difference but that's a different problem, they got rid of all the apprenticeships didn't they and people are pushed towards university so there are no plumbers, builders, electricians and the ones

there are charge extortionate rates. Maybe some of the people here should be doing plumbing. I think some of the younger ones have been pushed here by their family, not like mature students who choose to be here, it's not particularly what they want to do, they do it because that's what their family think they should do. That's why many of them haven't got the commitment. Definitely there are a lot of younger ones that I've spoken to who are doing the course but they want to do something else when they finish. One wants to be a pilot, someone else wants to be a journalist in the music industry and some other really unrelated areas that they want to work in".

Researcher: "You mentioned proving your abilities because others might not think beauty therapy is very clever, does that fit into the aspects"?
Interviewee: "Analytic and social".

Researcher: "Changes in society with the lack of apprenticeships linked with younger students perhaps not making their own choice to come into higher education".
Interviewee: "That's formative because of how things have developed. It's about society, social because they don't know what they want to do in society".

Researcher: "Do you know what you want to do"?
Interviewee: "Vague idea, I'm hoping to do a one year work placement even though some people think I'm mad because I'm a mature student. They think that mature students have got work experience but that isn't in the same field or even related in any way, shape or form. I'm trying to sort out my own placement. I'm hoping that will come off. I'm interested in systems analysis and project management, I'm not technical and I don't like programming".

Researcher: "So, you've done quite a lot of research on your own to sort out a placement".
Interviewee: "Yeah, I want to do it for the experience but also I might be able to use it for the final year dissertation. That's probably pistic because of the commitment, social and lingual communication".

Researcher: "So this is all part of you plan to get into work is it"?

Interviewee: "I've not started off with a plan it's just sort of developed. It's like a little tree it just seems to spread outwards. I've never had a master plan in life. I don't think you can plan but you should grab the opportunities when they come your way".

Researcher: "Although you've done a lot to help yourself into work, do you think there should be some help for you at the university"?

Interviewee: "Yeah, some more help but I don't know in what way. I suppose the ISI point of view is that they have close links with industry".

Researcher: "Is it apparent that they have close links with industry"?

Interviewee: "No, it's not. No-one has been in to talk to us except some students who are on placement at the moment. But none of the managers or anybody spoke, just the students. There are only seventeen out on placement this year and when you think about the number of students it is really bad. Most people just want to get the degree over and finished with others can't be bothered finding placements. I don't think students realise the benefits that it will provide, the younger ones especially have been in education for so long that they just want to finish and get out to work and earn some money and they don't see that a placement is an opportunity to help them get a better job really. That's because a lot of the stuff we learn in lectures quite honestly is unrelated to work. It's not easy trying to connect that to a job. It's not as straight forward as people think and practical experience is completely different to being here. People in industry say that they never do what they learn. They don't sit around doing a lot of diagrams. They have to have background knowledge but most of the people I know say they don't have time for diagrams and all that, they just have to get on with it".

Researcher: "You made a point about information in lectures not being easily transferred. How does that fit into the aspects"?

Interviewee: "Analytic thinking and social, lingual communications".

Researcher: "Also, you made a point about people not considering the benefits of placements and the difference between what is learnt at university and practical experience".

Interviewee: "Yeah, that's analytic thinking. They're probably thinking about the money from a job and not about being prepared for that job with experience".

Researcher: "Do you think you will be prepared and confident to go into work when you graduate"?

Interviewee: "I don't know at this stage. I'm not a very confident person in my own abilities with IT. That's probably because the job I do now I know inside out but I don't know about IT like that so I've got less confidence. I do feel I've got a lot of learning to do. But, practical experience will help with that, actually doing the job. Younger ones aren't like that they come out thinking they 'know it all' but because I'm mature and have working experience I know that isn't the case".

Researcher: "The fact that the younger ones think they 'know it all' and can just get into work, does that fit into the aspects"?

Interviewee: "Analytic, lingual, social and juridical 'what is due', a lot of the younger ones think because they've done a degree they're owed a good job and a good wage. They've got no idea that this is just the beginning of the learning curve".

Researcher: "You mentioned that you are not confident in your IT knowledge and you've got a lot to learn".

Interviewee: "Yeah, that's sensitive and analytic".

Researcher: "Is there any other information that you would like to add. It can be information about your learning experience or anything that you think is important"?

Interviewee: "I think the hardest bit is doing a lot of teamwork and that part of having to rely on other people for your grades. Because you don't always get a good group and you can get a clash of personalities. I think that's unfair that you are relying on other people. The other thing, for mature students, it is quite hard

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to settle in. A bit more thought should be put into it, maybe group meetings or something. I found it really hard because I came in as a second year direct entrant and a lot of people were already settled. Also some of the modules relate back to the first year, they need to address that problem. Maybe they should do separate sessions just going through things you need to know. Also, coming in as a mature student you haven't got that exam technique, haven't done exams for a long time and that was really difficult and even report writing as well. These are just taken for granted really. The only other thing is, I think we get too much work especially in the second semester and I feel we don't get enough time on each subject. You start a new subject and straight away we get the assignment so you tend to concentrate on that rather than actually learning and you're missing out. But it's the fact that everything is forced into a twelve to fifteen week slot. I think you are missing out on learning because you don't have time to do any background reading because you can only just keep up with what you've got to do. Because you have to concentrate on the assignment you haven't got time to sit and read and think about what you are suppose to be learning each week. Like strategy for organisations with (staff member) we only get an hour a week lecture on that and we've got to do a business analysis report which is six to eight thousand words plus a presentation but because they're on strike we've had to hand in a PowerPoint presentation and supporting notes. That's just one module, it's a ridiculous amount of work for one module. Then there's systems development which we have to do case diagrams for with menus and acceptance testing for a database plus we've got an exam. Then for the IS quality thing we've got two assignments and an exam. Just got loads, far too much to do. I feel that this semester especially we're not learning much".

It was noted that the interviewee had used all of the ten later aspects throughout the interview process. The researcher asked if there was any further information to place on the map. The interviewee decided that it was complete. A typed transcript of the conversation and a copy of the map were forwarded to the interviewee for validation.

IT/IS student 9 – Aspectual Map

Sensitive
Studied IT because of a progression from HNC.
All started with not being able to use brother's computer (a need to learn).

Lingual
Studied IT because of a progression from HNC.
All started with not being able to use brother's computer (understanding).

Concerned about

Social
Children learning about computers.

Ethical
Don't know how some of the younger ones got in.

Analytic, Social.
Proving abilities (not stupid).

Sensitive (feelings) and Analytic (self-critical).
Achieving a goal that I couldn't do at 18 (not clever enough).

Most important outcome

Sensitive, Analytic, Lingual (NOT Aesthetic).
Achievement important rather than job and money.
Mature students are more realistic about career and learning opportunities.

Difference between mature and younger students.

NOT Pistic
But maybe they just plan differently.

Sensitive, Analytic, Formative, Social and Pistic.
Different attitude to work.
Younger ones not as stressed about getting work done.
They work on the last minute and don't seem to plan.

Social, Pistic commitment
I have work, two children and a husband.

Pistic, Sensitive, Analytic and Formative.
If you start something you should finish it.
Don't want to look back and regret not finishing it.

Formative and Social
Younger ones want to do different things than they are studying for. The degree often isn't their decision.
They have no commitments. Changes in society mean no apprenticeships.

Concept Map – Student 9.

c = concept, v = value.

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┌─────────────┐      ┌──────────────────┐          ┌──────────────┐      ┌──────────┐          ┌────────────────────────────────────────────┐
│ c           │ ───► │ v                │          │ c            │ ───► │ v        │          │ c                                          │
│ Progress    │      │ No definite plan │          │ Learning     │      │ Goal     │          │ View of Others – younger students          │
│             │      │                  │          │ Opportunity  │      └──────────┘          │                                            │
└─────────────┘      └──────────────────┘          │              │      ┌──────────┐          └────────────────────────────────────────────┘
      │       ┌──────────────────┐                 └──────────────┘ ───► │ v        │
      ▼       │ v                │                        │              │ Ability  │
┌─────────┐   │ Understanding    │                        ▼              └──────────┘
│ v       │   │                  │                 ┌──────────────┐
│ Courses │   └──────────────────┘                 │ v            │
└─────────┘                                         │ Achievement  │
```

Progress → No definite plan; → Courses; → Understanding

Learning Opportunity → Goal; → Ability; → Achievement

View of Others – younger students

v Degree not their decision → v No commitments

v How did they get in?

v Different attitude

v Not stressed

v They plan differently

v They don't think about work placements

View of Self → Study → Start something and must finish it

v Work

v Family → v Children and Husband

Changes in Society → v No Apprenticeships

v Systems Analysis

Work Placement → v Experience; → v No Experience in the field

```
┌─────────────────────────┐          ┌─────────────────────────────┐
│ C                       │          │ C                           │
│ Lack of Confidence      │          │ Uni Link to Industry        │
└─────────────────────────┘          └─────────────────────────────┘
```

C — Lack of Confidence

v — A lot to learn

v — Practical experience is different

v — Work Placement

C — Uni Link to Industry

v — No link apparent

v — Lectures unrelated to work

C — Relying on Others (Teamwork)

v — Not always a good group

v — Clash of personalities

C — Fitting in (as a mature student)

v — Report writing

v — Group meetings

v — No exam technique

v — Not enough time to learn

Appendix B

Multi-Aspectual Knowledge Elicitation (M.A.K.E.) model
Interview Documentation - Student Reference 10
- **Interview Transcript**
  - **Aspectual Map**
  - **Concept Map**

IT/IS student 10

The researcher explained the aspectual suite with simple references and added that the first five aspects may or may not be overtly evident but that the interviewee was at liberty to note any aspects. As the following discussion took place the researcher built the aspectual map in reference to the words of the interviewee. The map was in full view of the interviewee at all times.

Interview notes:

Researcher: "Why did you choose to study IT/IS"?

Interviewee: "Because, originally I wanted to do Child Psychology and then I thought, I was thinking more ahead for my family, for my children and then I was thinking about IT. I went to Bolton Institute College and they told me that if I wanted to do Child Psychology well, this one person he had been studying seven years just to get to a certain level. So, then I thought no, because I needed something that's going to benefit us all from as soon as I graduate so then I chose IT".

Researcher: "It's quite a jump from Child Psychology to IT, what brought you to the definite decision"?

Interviewee: "well, the Child Psychology thing, I've always been interested in it, I like to help people, I like to work with disadvantaged kids. I'm a mentor at the moment for disadvantaged kids. But the link with that was because since I was sixteen. I've always worked on a VDU or computer so I knew basically what I were doing. I think I just wanted to progress then and I knew I could do certain aspects of it. I knew I could understand and fix computers. If something went wrong in the work situation other people would ask me and say 'this has happened, why?' so I knew I could relate to it. So, that's why I chose IT. I thought it would be easy, it's not".

Researcher: "So, although you really wanted to do Psychology you thought it would take too long and you wanted to do something else for family reasons and you decided on IT, is that right"?

Interviewee: "Yeah.".

Researcher: "Can you relate that to any of the aspects".

Interviewee: "Social and economic".

Researcher: "Why have you chosen the social aspect"?

Interviewee: "Because of the relationship to me and the role that IT has in society".

Researcher: "And why did you pick the economic aspect"?

Interviewee: "Because of the money and time I've invested, it's been hard. I've just had my first exam this morning so hopefully I'll graduate, if all goes well".

Researcher: "What is it you most hope to gain from graduating with an IT Degree"?

Interviewee: "A good job".

Researcher: "And where would you place 'a good job' in the aspects"?

Interviewee: "Social, pistic, sensitive, analytic".

Researcher: "When you relate 'a good job' to the social aspect, what does that mean to you"?

Interviewee: "That I'll get a role in society and build relationships through interaction with people".

Researcher: "And what about the pistic aspect"?

Interviewee: "That's my commitment to the job".

Researcher: "And the sensitive aspect"?

Interviewee: "You've got to be emotional haven't you, within your working environment"?

Researcher: "And the analytic"?

Interviewee: "How I'm going to plan my time and my children around my job and other things I need to look at".

Researcher: "So now that you've worked through three years of the degree so that you can get a good job, how do you feel about the degree that you've done"?

Interviewee: "I've hated it!"

Researcher: "Why"?

Interviewee: "I don't think I was prepared for University. I went on a course at college and they said they were preparing us to go on to University, and it's just been a nightmare. I've not enjoyed any of it. I don't think it's the fault of the University, it's me, I wasn't ready to take on such a commitment. University is not my first priority, my family and my kids are and I did it because my kids were young and I thought it would fill a gap in my life and it's too much of a thing to do just for that. And when you don't enjoy something then you get to hate it. But I've had to persevere with it and I have done and I just hope I don't have to re-sit anything. And, you don't get a lot of support neither. I don't like that. If I've got a problem or don't understand I like to get help. If you work in an office you say to the manager what's this, I don't understand, they will explain it to you there and then. If you do that here because you aren't used to something so you ask somebody they just say 'get a book from the library and read it'. What's all that about? They wouldn't say that if we were working for them, they'd make sure we could do it. ".

Researcher: "So, bringing you back to not being prepared for University, can you put that in an aspect"?

Interviewee: "Sensitive".

Researcher: "Because"?

Interviewee: "Because, it brought out a load of emotions and feelings in me that I didn't realise and it was totally interfering in my life. It was doing things to me that would not have bothered me before. Things that would have been water off a duck's back before, yet this was really stressing me and getting into my head and I wondered why I was doing it. ".

Researcher: "Is there anything in particular that occurred which explains what you were going through"?

Interviewee: "Last semester I got really stressed with my dissertation. I'd been planning my dissertation since last April. I'd been given team leader for September, I was confident with that, and done loads of planning and organising for it. But, when I came back to University I kept getting knocked back. What the tutor was telling me to do was like double Dutch. I wasn't producing what he wanted so I kept going back with pieces of paper saying we've done this and he was saying 'no, it's not right'. And I'm saying, well, why isn't it right? I was getting upset and I couldn't understand. It was like he was talking a different language, he couldn't come down to my level and say this is what I want. He really went round the houses and made it really difficult for me and then I didn't get such a good mark in the interim. And then the team leader thing, everything I'd planned and designed, because I didn't have the support of the tutor that just fell around me as well. I was totally disheartened and within weeks I made myself so ill and stressed that I was waking up in the middle of the night and being sick and all that, I lost a stone in two weeks. It all got to me and I was ready for walking in November, giving it all up. And (the course manager/student support) stopped me. She said 'no way'. But I couldn't understand how I'd let it affect me that way. I was stressed and depressed and it was no good because I had two kids at home and they were my priority. I couldn't see right for doing wrong."

Researcher: "So the fact that you felt you had no support, could that be changed"?
Interviewee: "Well I know the commitment that's involved now and what's involved and how people talk to you and that there's no point going to see lecturers and everything because you don't get anything out of it. The thing is as well that because I 'm a mature student I'd always been used to working and I'm thinking, they don't treat you like this in jobs you don't just do it this way or that. But I've worked for fourteen years and you don't just do things one way. But ask them a question and they just talk to you academically which is way up there so you don't understand and they're not able to come down to your level and discuss things with you. They just tell you to go and read a book".

Researcher: "The fact that you really haven't enjoyed your time here, can you place that in the aspects"?

Interviewee: "Sensitive, Biotic. My feelings and biotic because I was ill and getting panic attacks. I'd never experienced that before. It went on for about six weeks, waking up in the night and my nerves had just gone. It was like nothing else mattered. The only thing I could see was University and everything I was doing for it, I was doing wrong. Then I had to take a step back and think I'm not well, I knew that I wasn't well. And I had to be well for the kids because they're what's important and my health. So, I just picked myself up and thought well, I'll deal with this. I won't let it do this to me. I looked at the kids and my priorities changed and I knew that no matter if I finished University or not their love for me is never going to change so I thought 'stuff it', suddenly I didn't need it ".

Researcher: "So the point about University not being your first priority, can you put that into the aspects for me"?

Interviewee: "Pistic because of commitment to the kids and family".

Researcher: "And the strong point you made about the lack of support here, can that go into the aspects"?

Interviewee: "Lingual, because the communication just isn't there and the meaning and understanding isn't there. You are not important. I remember, there is one tutor who each time we came out of a lecture nobody knew what he was going on about and someone said this and he said 'I'm paid to lecture, I'm not paid to teach. If you want me to teach you I suggest you come to my night classes and I'll teach you then. So everybody, well just asked each other after that. Actually that's like the mentoring thing and I do agree with that. Now Third Years mentor First Years so they can talk about the problems they've got. So they've got someone to talk to rather than being on your own because there's nothing worse than that. It's been really emotional all this and its taken a lot away from me because I've always been a confident person but here I've just dragged myself in, gone to the lectures and gone home. And even though I speak to a lot of people I haven't made any great friends."

Researcher: "Are you a mentor or not"?

Interviewee: "No, it was only offered to people who were aiming for a first class degree, good academic record and all that which really was another annoying thing".

Researcher: "You've obviously had a very emotional time. But can you see the good that has come out of it for yourself"?

Interviewee: "The degree is for my job and so I can provide for my kids. Also it means I can pick and choose. I don't have to go for an admin job. ".

Researcher: "When you say provide for the kids is that just about finance"?

Interviewee: "No, as far as my kids are concerned they don't finish school until they are twenty-one. I didn't finish school so I had to do it later. I want them to have opportunities and be a lot more confident than me. When they started school I started University so they are used to seeing me do all this. They came to college with me then later they went to school and I came to Uni".

Researcher: "Do you think you're providing better educational opportunities for your children by showing them that Mum has her degree"?

Interviewee: "Yeah.".

Researcher: "Does that fit into the aspects"?

Interviewee: "Pistic commitment, me to them. Social as well because they will get into relationships in society that are different to what they would have done. I want them never to feel inferior to anybody, like I felt here. Maybe formative because it's a cultural thing as well".

Researcher: "You've said that you've felt inferior and not been treated the way you expected, but you want your children to have this opportunity. Do you think the University experience is different for mature students than younger students"?

Interviewee: "Yes, because the younger students have just come from doing their 'A' levels, they know more of what is expected and they know how to research and work of theories. Whereas for us it was a new thing, it was going too deep

for us. We knew about things but we didn't know who'd written about it. That's a major difference".

Researcher: "The differences between mature and young students, can you place those in the aspects?"

Interviewee: "Social and Pistic. The pistic one because mature students have more commitment than younger ones. I've been turning up for lectures through these years and the younger ones are sat around having a brew somewhere or they'll walk in half an hour late every time. And I think well, I'm here everyday, I've got two kids to sort out and if I can do it why can't they? But if Mummy and Daddy are paying it's not that serious is it?"

Researcher: "What about the social aspect."

Interviewee: "Well, I can remember feeling in the first year that I didn't have a right to be here because there were that many young ones".

Researcher: "So, if there were mature student classes only, would you have preferred that?"

Interviewee: "Yeah, definitely. Because that would have been like the access course I was on. Everybody was there for the same reason, they had either just had kids or they were trying to get back into work. You all wanted to do something. At the college they look after you, but here it's like they don't want you to do well. What's all that about? And then you get told that if you don't work hard they will knock you down but then if they want to improve the league tables they will put your mark up. What's all that? At the college it was nice community, they want to help you to get on and get a good job".

Research: "The point about 'the good job' has come up a few times. Do you have any concept of what it will be"?

Interviewee: "Well, I've started mentoring for kids before I came to Uni. I'm a great believer that kids don't just turn out bad, there is always something wrong if they act badly and I wanted to work with them. But when I came to Uni I had to give up the training, but I've started again now, it's a ten week course and I get a BTEC 3 at the end of it and I can go on to be a development worker for a

company which as a job is about eighteen hours a week and twenty grand a year pro rata. But then I'm thinking well you could have done that three years ago and then you didn't need a degree. But now I've got this degree so I've got to do something with it, something more.

Researcher: "So, before this whole process you were interested in mentoring children and at the end of the three year IT degree you still want to do some kind of mentoring work but you have the added pressure of using your degree".
Interviewee: "Yeah, exactly. But I got myself into a degree but the kids mentoring means a lot to me".

Researcher: "What the child mentoring means to you, can you put that into the aspects for me"?
Interviewee: "Sensitive because of all the feelings when you help someone and it goes well".

Researcher: "Although the mentoring work means so much to you and you were unhappy doing the IT degree you still managed to carry on to the end. What got you through"?
Interviewee: "I had something to prove. I had to prove that I wasn't just full of it".

Researcher: "Were you proving it to yourself"?
Interviewee: "Yeah,

Research: "Does that fit into the aspects"?
Interviewee: "Yeah, sensitive and pistic. Because of my feelings and because I had to be committed. I want to make a difference. I'd like to work for a charity like the NSPCC. Maybe it could be in their computer department but also do the other work so that I'm making a difference to somebody's life".

Researcher: "If you went into the NSPCC computer department you'd still want to do the counselling or mentoring"?

Interviewee: "That's what I'm thinking about is maybe doing eighteen hours a week working in child development and the other eighteen hours in computing".

Researcher: "If the opportunity came for you to do the social work side and no computer work would you prefer that"?
Interviewee: "Yeah and this is the focus of the jobs I've applied for, one is in the probation service. There are others like women's refuge. And I'll do the computer bit just for the money and to get my foot in the door I'm confident enough to get where I want to be, it's just getting in."

Researcher: "You've mentioned making a difference a few times. Can you put that into aspects"?
Interviewee: "Sensitive because of my emotions. Social because I can make a difference in society. Aesthetic because it's not about beauty or harmony because it's never going to be like that. This all goes back to the Child Psychology thing, so I've done it the wrong way round, story of my life".

The researcher advised the interviewee that the ethical and juridical aspects had not been used and asked if they could relate any further information to these aspects. The interviewee then added:

"Juridical for 'what is due' might be in the lectures. From our perspective lecturers might not give what is due but they are still getting paid for it, so they're alright. Because they are there to lecture and not to teach, apparently. And the ethical is the same about giving more to people. I've never got that from here except from (course manager/student support person). And now apparently they have said that students don't need support. Where are they getting that from? So, soon when a mature student who can't cope because they can't understand the academic tutors will be told to go and speak to an academic tutor"!

It was noted that the interviewee had now spoken about all of the ten later aspects. The researcher asked if there was any further insights that the interviewee would like to add. The interviewee then said:

"The problems are all to do with support or the lack of it. Students need the support and to know that they are not alone. I don't think they are interested in mature students, but then again I don't think they are interested in any students, a lot of them. You see you start a degree and get yourself into debt and change all your life about before you find out what it's really like. And then you can't let it go because it's like you've failed. And you've come so far and you're too old to give up now. If I'd have known how it would be and how it would turn out I never would have done it. Now I'll try to get into a job through the IT side just so I can try to do what I originally wanted to do in the first place."

The researcher asked if there was any further information or details to place on the map. The interviewee decided that it was complete. A typed transcript of the conversation and a copy of the map were forwarded to the interviewee for validation.

IT/IS student 10 – Aspectual Map

Social and Economic. Studied IT rather than the preferred subject of Psychology.

Because of possible gains

Social Good Job, role in society and interaction with people.

Pistic Commitment to the job

Sensitive Emotion in the work environment.

Analytic Planning time around children etc.

From the degree

Realised that degree was not first priority.

Pistic Commitment to children and family.

Biotic Illness and nerves.

Sensitive My feelings, not being prepared for Uni.

Carried on because

Due to lack of support

What good came out of this?

Sensitive The feeling when you can help someone (child mentoring).

Sensitive Own feelings about proving you can do it.

Lingual Communication and understanding not there.

Pistic (Mum with a degree). I want them (her children) never to feel inferior, like I felt.

Aesthetic It's not about beauty and harmony.

Social Making a difference in society

Sensitive Own emotions

Perspective on making a difference

Pistic Commitment to making a difference

Formative Culture.

Different experience for mature

Additional aspects noted

Juridical 'what is due'. Lecturers are there to lecture not to teach.

Ethical Giving more to people. I never got that here.

Pistic Mature students are more committed.

Social Feeling that I didn't have a right to be here.

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Concept Map – Student 10
c = concept, v = value.

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┌─────────────────────────┐                      ┌─────────────────────────┐          ┌──────────────────────┐
│ C                       │                      │ c                       │ ───────▶ │ v                    │
│ Choosing a subject      │                      │ Benefits of IT degree   │          │ Interaction with     │
└─────────────────────────┘                      └─────────────────────────┘          │ people               │
       │            ╲                                  │             │                 └──────────────────────┘
       ▼             ╲                                 ▼             ▼
┌──────────────┐  ┌──────────────┐          ┌──────────────┐  ┌──────────────┐
│ v            │  │ v            │          │ v            │  │ v            │
│ Preference   │  │ Persuaded    │          │ Good Job     │  │ Role in      │
│ for          │  │ to do        │          └──────────────┘  │ society      │
│ Psychology   │  │ I.T.         │                 │          └──────────────┘
└──────────────┘  └──────────────┘                 ▼                 │
                                          ┌──────────────────┐       ▼
                                          │ v                │  ┌──────────────────────────┐
                                          │ To provide for   │  │ v                        │
                                          │ my kids          │  │ Able to pick and         │
                                          └──────────────────┘  │ choose jobs              │
                                                                └──────────────────────────┘
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┌───────────────────────────────┐         ┌───────────────────────────────┐
│ C                             │─────────│ C                             │
│ Disadvantages of the course   │         │ Uni is not my first priority  │
└───────────────────────────────┘         └───────────────────────────────┘
   │          │         ╲                                          │
   ▼          ▼          ╲                                         ▼
┌───────────┐  ┌──────────────────┐                    ┌──────────────────┐
│ v I hated │  │ v                │                    │ v                │
│ it        │  │ Not prepared     │                    │ Children         │
└───────────┘  │ for Uni          │                    └──────────────────┘
   │           └──────────────────┘                             │
   ▼                    │                                       ▼
┌───────────┐           ▼                            ┌──────────────────┐
│ v         │  ┌──────────────────┐                  │ v                │
│ Emotional │  │ v                │                  │ Planning time    │
│ experience│  │ Lack of support  │                  │ around children  │
└───────────┘  └──────────────────┘                  └──────────────────┘
   │                         ╲
   ▼                          ▼
┌───────────────┐   ┌──────────────────────┐
│ v             │   │ v                    │
│ Stress and    │   │ No help from         │
│ illness       │   │ lecturers            │
└───────────────┘   └──────────────────────┘
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C Mature Student

V Prove you can do it

V Committed (always turn up to lectures).

V Feeling that I didn't have the right to be here.

V Haven't made any great friends.

V Accustom to working

V Accustom to being treated as a worker.

V Lecturers have a view of 'only one right way'.

V We (mature students) know things but not who have written about them.

V Lecturers won't teach.

C A good job.

C Doing a Access Course

V They want you to get on and get a good job.

V They want you to do well.

V Working with disadvantaged children

V Use I.T. degree to get into a charity that works with children

V They look after you

V Nice College Community

V Everyone is there for the same reason.

V Now doing a course toward this.

V Want to 'Make a difference'.

V They want to get back to work or they have just had kids.

Appendix C

Multi-Aspectual Interview Technique (M.A.I.T.) model

Interview Documentation - Student Reference 13

- **Interview Transcript**

IT/IS student 13

Researcher: "I'm asking for your perspective on being a mature student, why you decided to come back into education and what your hopes and aspirations are in relation to the study you are involved in"?

Researcher: "We will progress through each section (aspects) and I will note down the information you relate to each section".

Researcher: "Please begin by telling me about your feelings regarding the return to education and any other information you would place in this section".
(Sensitive Aspect – Emotions and Feelings)
Interviewee: "I made the decision to come back and I was happy to make the decision after working for a long, long time. I didn't know what it would be like and I didn't allow myself time to think about it because I didn't want to put myself off. I knew I wanted to come back and to learn. I want to work in the NHS, it's got nothing to do with the work I've been doing but circumstances meant that I couldn't do this before but now I feel I have done the right thing even though it's been hard".

Researcher: "Has it been hard"?
Interviewee: "Well, yes. For financial reasons and because of the children and the workload of studying I'm doing a diploma rather than straight to a degree. It's the same time of three years and after the diploma I will go for the degree but it will mean I can do it while working in the job I want to be in, so I feel the diploma is the best route for me right now".

Researcher: "What is the main concept in what you have told me? You mentioned coming back to learn, finishing work after a long, long time, particularly working for NHS. Is there a main concept"?
Interviewee: "No, no. It's the whole thing. First I had to do this access course because I didn't have the qualifications for university. I don't know about the concepts but years ago when I was at school circumstances meant that I couldn't sit O'levels. My mother

died and I had younger sisters to care for, so I wasn't able to go to school after that. So time went on and before I knew it I had my own children and then, well you begin to think you are a bit thick, you get like that because I didn't finish school so I thought I couldn't do anything else. So I got a job in an office but I never really wanted to be there, I was bored. Somehow I knew I always wanted to be a midwife and I started thinking, where do I have to go and how do I go about getting the qualifications and only last year by talking to one of the other Mum's at school I found out about this access course. I didn't know anything before that, I thought I would have to go back and do O'levels and A'levels. I think that would have proved too hard because of the time it would take but also the bad memories attached to that time. So this idea of an access course is just fantastic really, it's just ideal".

Researcher: "What can you tell me in relation to this section"?
(Analytic Aspect – Planning and Focus)
Interviewee: "In what way"?
Researcher: "Well, how did you plan for the course"?
Interviewee: "Well, it just came from chatting to another Mum at school. It's just a community thing really we talk about all sorts of things. She just told me that she'd finished this access course and started at uni".

Researcher: "Is there anything you focus on to keep you going"?
Interviewee: "Yeah, when I left work they bought me a nurse's fob watch. I wouldn't have bought myself something like that not until I had passed and I needed it but they bought it me as a leaving present. It shows their belief and I look at that and think 'I have to do this'. So in my mind I've always wanted to be a nurse or a midwife, I'm swaying between the two at the minute. But they see that I can do it and it's what I want so it keeps me focused. I still would do it if they hadn't have bought me that but it's a good reminder of what I want for myself and so what I'm doing it for".

Researcher: "Is there anything you can relate to development"?
(Historic Aspect – Development)

Interviewee: "My whole conversation is different when I speak to people now. I think differently and see things differently, I feel confident and this sounds silly but I feel clever, as if I'm worth more and better. I feel like I'm achieving something and I've never been able to say that. I brought children up and other people think that's an achievement but I don't feel like it is. Now this is achieving something for me".

Researcher: "What would you place in this section"?
(Lingual Aspect – Communication and Understanding)
Interviewee: "I've always worked in a customer-based environment so I find it easy to talk to people and I think that helps here in communicating with tutors and students. I don't find this hard at all, the tutors are approachable. In the first couple of weeks you do think that the tutors wonder 'oh, what have we got here'? But they're not thinking that at all. You're just a bit intimidated for a while because of a lack of confidence. Although I've always been confident I thought I was stupid".

Researcher: "Can you tell me about relationships and any other information you would place in this section"?
(Social Aspect – Relationships and Role in Society)
Interviewee: "My daughter is doing A'levels and my son's at college so now I have more of an understanding of what they are going through. I didn't appreciate before how hard it is for them. I knew they had to study and do this and that but I didn't have experience of it. Now I appreciate their workload".

Researcher: What can you tell me about managing the resources which are available to you"?
(Economic Aspect – Managing Resources)
Interviewee: "I have to watch the money because I'm not well off. Not that I was before but it's less now. Time isn't too bad, I had to manage my time anyway because I was at work full-time. Mostly the difference is in making yourself do things at home. You have to discipline yourself to do the study work instead of the ironing or other household things. It's making yourself say 'no' to those things because you have to use that time to

study. If the house needs doing and you are studying you feel as if you are just sat around and you should do the cleaning. If you don't someone might call when it's a mess, and they always do"!

Researcher: "Do you have any thoughts about how you balance your time between work and pleasure"?
(Aesthetic Aspect – Life Balance)
Interviewee: "I don't have time to myself but that's my fault because I'm a worrier and I worry about this assignment and that exam and the kids need something and the house stuff. But recently I have been thinking that this can't go on, that this has got to stop and I've spoken to people that I haven't seen since I left work and I'm actually going on a night out. I've just said that I need a laugh and I need to go out and just get away for a couple of hours. You've got to find a balance, you need to rest your mind. I think that probably helps your work, that's the conclusion I've come to".

Researcher: "What can you tell me about what is due to you and others, and what you consider important about rights and responsibilities"?
(Juridical Aspect – What is due / Rights and Responsibilities)
Interviewee: "You want to be spoken to at an even level, you don't want to be spoken down to. Oh, God, I don't know. But I remember that my boss at work could be quite belittling if she wanted to be and one of the other girls took that behaviour, she was maybe intimidated but I didn't take it. I wouldn't because I had children and she didn't so maybe she didn't see the connection but I just saw it as bullying. I wasn't afraid of her but I was weary because she had the advantage of position but I stood my ground. I did my work and that was that so she couldn't really do anything".

Interviewee: "In responsibilities, the people here have taken the time to teach me so I have to do the best I can".

Researcher: "What would you place in this section"?
(Ethical Aspect – Generous Attitude and Justification)

Interviewee: "The students are really helpful to each other to the point where you worry if it's allowed. It was so different at school, you couldn't copy and you couldn't share information, you weren't encouraged to talk things through. So now it feels like you shouldn't do it really. But it's ok to do that and we help each other out".

Interviewee: For justification, if the children were younger I would need to justify giving up a job and also using time where I could be with them. I'd be thinking that this is their time. Their Dad and Nana are very good, if I had to put the kids out here and there and they weren't with family then I would have to justify it more. But I do admire people who are strong enough to do that but I couldn't have done this when the children were young. I even felt guilty just for working, but it had to be that way, I didn't have a choice in that. There isn't enough help in child care, you don't want to pass them about and you end up feeling awful. But no I don't have to justify myself now, but I would have felt like that if the kids were younger.

Researcher: "What can you tell me regarding commitment and vision"?
(Pistic Aspect – Commitment and Vision)
Interviewee: "I'm doing the access course for a year, then a diploma for three years. After that I can go back into the workplace and do the modules in my own time towards the degree. But I'll be getting the experience at the same time. In the NHS they give you time to study because they like you to have your degree. But you're gaining experience and you're back in the workplace. I feel like if I did the degree, because it's much more academic, my motivation might not last, I feel I might give up. I'd rather do the diploma which will be hard enough but then get motivation from the work to carry on with the degree. I know people always say do the degree because you're all done then, but you're not because your always updating your skills, you never finish doing that. Also there's a lot more financial support for doing the diploma".

Interviewee: "My vision is to do the job and have that professional qualification, and that cap and gown, I can't wait for that. Just because I never thought, I never imagined I could. Right at the beginning I must admit to thinking 'who am I trying to kid', But I

know I can do it and it came about because of this other Mum telling me and since, I've met someone else again who wants to do this and I've passed the information on and because I'm here now I tell anybody that I think might be interested".

Researcher: "Please look at the information noted here and tell me if there is anything further you would like to add".

Researcher's note:
The interviewee decided that there was no additional information to add. A typed transcript was issued to the interviewee for validation purposes.

Appendix D

Multi-Aspectual Interview Technique (M.A.I.T.) model

Interview Documentation - Student Reference 17

- **Interview Transcript**

IT/IS student 17

Researcher: "I'm asking for your perspective on being a mature student, why you decided to come back into education and what your hopes and aspirations are in relation to the study you are involved in"?

Researcher: "We will progress through each section (aspects) and I will note down the information you relate to each section. Please begin by telling me about your feelings regarding the return to education".

(Sensitive Aspect – Emotions and Feelings)

Interviewee: "Well, the only reason I'm studying IT is because you've got to do it on the course. That's what they tell you to do. But it's access to University and I've always wanted my degree. But I didn't feel guided enough when I was younger, and I'm not being guided now, but I know my own mind. I feel that females get better jobs from college and I want to give my children a better future so I'm hoping to send them to private education if I can earn enough to do that. I would like the opportunity to give them a better standard of education than I had".

Researcher: "What can you tell me about planning in your life and any focus you have"?

(Analytic Aspect – Planning and Focus)

Interviewee: "I've been at home with both children and that is seven years. I wouldn't change that, I wanted to give them that time. But now that I can go back to work I don't want to go back to what I was doing before, working as an auxiliary. I need more than that".

Researcher: "What can you tell me about any development that you think relates to you"?

(Historic Aspect – Development)

Interviewee: "I've just lost two stone in weight so my confidence has just boosted anyway. I had depression as well. But that's all changed now and coming here is part of really moving on".

Researcher: "What can you tell me about communication and understanding"?

(Lingual Aspect – Communication and Understanding)

Interviewee: "I actually feel that the tutors enjoy teaching mature students and you get good feedback. Also there is no 'bitchiness' between students, nothing like that. Even if people make the odd comment it's never harmful, it's in humour. It's not like school, mature students together gel much better, its easy to relate and material things are not important either. That's not an issue. There's none of this, I've got this and you've not got that. I've noticed that, we are purely here to better ourselves".

Researcher: "This section is about relationships and your role in society":
(Social Aspect – Relationships and Role in Society)
Interviewee: "People here are friendly and we just get on with it".
Researcher: "What about the role in society part"?
Interviewee: "Well I've got different social circles. I've got friends that I've known a long time, then I've got other friends and the Mums at school and now I've got college people. So, it's just developing really all the time. But it's really enjoyable and I'm not fazed by it".

Researcher: "What can you tell me about managing your resources"?
(Economic Aspect – Managing Resources)
Interviewee: "It isn't difficult but the housework had to take a back step to enable me to get my brain back into gear. I am house proud and I do always clean and tidy but not all that I could do before. It is important to do that but it's not as important now. The work for here comes first".

Researcher: "Do you try to have a balance between work and pleasure in your life"?
(Aesthetic Aspect – Life Balance)
Interviewee: "I go out with friends on my own, that is how I relax and get away from everything. But then we are also in a good routine of teatime and bath time and then the children are in bed for about eight o clock in the evening and then I go into the toy room where the computer desk is and I like to do at least two hours study in an evening. So, eight till ten at least, I can work then because I've got planned blocks, first I've been in college so that's that block then at home that is that block done and then work in the

evenings is the final block, telly doesn't even come into it. I know my plan so I'm ready to work then. It's a lot of reading at the moment and looking at the internet".

Researcher: "What do you think is due to you and others and do you think it is forthcoming"?
(Juridical Aspect – What is due / Rights and Responsibilities)
Interviewee: "It's just so much easier to be taught as a mature student because we're treated with respect. You don't naturally realise it but you can step back and see that because of the way you are treated without a shadow of a doubt it makes it easier to learn. You don't realise when you're younger how important qualifications are, no-one explains that. But then again this is right for me because I wouldn't want to have a career from my early twenties right through to retirement and I wouldn't put my children into care just to go out and earn money, that wouldn't be me. I was probably ready to start all this a few years ago but it was the children that I was worried about".

Researcher: "Are there any important rights and responsibilities"?
Interviewee: "Be on time, it's just rude to come in late. When it happens I think well I got here so why are you so late. If I was a tutor I would have to have a general rule about that because I just can't understand it unless it is a proper reason. And on the work as well, you should get it done. I've had to dedicate myself one hundred percent".

Researcher: "This section is about having a generous attitude and also if you think any kind of justification is warranted for your return to education or anything else that comes to mind".
(Ethical Aspect – Generous Attitude and Justification)
Interviewee: "There is a generous attitude. People are just really relaxed. I think that's because we are all mature. I've seen the younger students around in the canteen and they swear a lot, they're noisy, they are very verbal, and it's all mouth. But it's their way of showing confidence and you don't know that person but it's just that teenage 'I know everything' attitude. I mean I can remember it myself and I just cringe, goodness knows

what I might have said, don't let's go there. I don't mind them, I can interact with all ages but I think it's better as a learning group for mature students to be together".

Researcher: "Do you have a view on any kind of justification"?

Interviewee: "I've had to justify this to my Dad, he's the most important person. I've told him 'I hope he's around to see me in the cap and gown'. I know it sounds an awful thing to say but it's important to me because he doesn't really know, he thinks you should just do a job and that's it. He doesn't think I can get on through these courses. So, it's: 'you're wasting your time' or 'you won't get on the course', that kind of attitude. But when I'm in a classroom with people and the tutor might say this is good and you've got a lot to offer etcetera. And you've just got to have goals that you set yourself. At the start I thought I had to justify all this to myself, but I've settled in now. I can say without a shadow of a doubt that I have done the right thing. I just can't wait for next year and to go to university. I've been for an interview and provisionally they've offered me a place. I couldn't believe it, I thought he must be talking to someone else. When I went out I felt like saying to complete strangers 'do you know what's just happened'. I was over the moon. I couldn't get home quick enough".

Researcher: "The final section is for your thoughts on commitment and vision".

(Pistic Aspect – Commitment and Vision)

Interviewee: "Well, my Mum was a housewife and my Dad was an electrician. And they don't mean to but they bring you down because that's what they were brought up to think about. There wasn't any drive from my parents to go to university but I want my children to have more than that. So, I want to do this for me, it has to be or I couldn't do it all. But, also it's an opportunity for my children, to give them a different insight. If I don't do it now I won't have any decent work options. It's like a big jigsaw and the last piece now is university".

Researcher: "Thank you for all that information. Can you just tell me something about the IT classes you attend"?

Interviewee: "Yes, it has been useful especially when something goes right but because you're only doing it for two hours a week you forget and then you get a work sheet asking you to do this and that. But what I've really learnt is that the computer can tell you what to do if you take notice of the messages and directions. Like the stuff on the toolbar, it's telling you what to do and I've shared some of that at home with the children but then other things they already know. I don't always enjoy the IT lesson but I did today. I've had to really apply myself and think about it, you can't not do things just because you're bothered, you don't realise at the time but these things come in later on because a computer is just a tool really so I need to use it".

Researcher: "OK, thank you. Please look at the information noted here and tell me if there is anything further you would like to add".

Researcher's note:
The interviewee decided that there was no additional information to add. A typed transcript was issued to the interviewee for validation purposes.

Appendix E

Authority forms completed by each student.

- **Interviews**
- **Observations**

AUTHORITY FOR MATURE STUDENT INTERVIEWS

PhD study

Student Name:

Year of study: 1, 2, 3

Information for the interviewee:

The researcher is studying mature students in higher education. The interview will be of an open structure allowing the opportunity to speak about all areas of the educational experience. The interviewee is at liberty to leave at any time and to refrain from answering any questions which they would prefer to avoid.

Consent Statement

I agree to an interview with the researcher. I am aware that this is a study of mature students and I have been informed that all information is private and confidential. In addition I am assured of anonymity.

Signature:

PLEASE NOTE:
If you wish to contact the researcher after the interview process please do so by visiting the PhD room in Newton Building or send an email to: s.c.kane@pgr.salford.ac.uk

Thank you,

Suzanne Kane.

AUTHORITY FOR MATURE STUDENT OBSERVATION

PhD study

Student Name:

Year of study: 1, 2, 3

I agree to the observational study which will take place between October 2003 and June 2004.

I am aware that the observations will take place at one session of teamwork per week and that I may be asked to complete a questionnaire and attend one interview with the researcher.

Signature:

PLEASE NOTE:
Any concerns should be raised with the researcher Suzanne Kane either by visiting the PhD room in Newton Building (F33b) at any team time or by email:
s.c.kane@pgr.salford.ac.uk

Thank you.

Appendix F

- **Spreadsheet Data**
  - **Graphs**

The following information and graphs show the data collected from the Further Education (M.A.I.T) interviewees and Higher Education (M.A.K.E) interviewees, in regard of each emergent generalisation. That is, mature student issues (MS), aspiration/potentialities (ASP/POT), information technology (I.T.) and Other.

	Sensitive MAKE	Sensitve MAIT	Analytic MAKE	Analytic MAIT	Formative MAKE	Formative MAIT
MS	32	0	12	0	14	0
I.T.	18	13	19	7	18	8
ASP/POT	50	87	54	80	59	84
Other	0	0	15	13	9	8

	Lingual MAKE	Lingual MAIT	Social MAKE	Social MAIT	Economic MAKE	Economic MAIT
MS	23	36	20	0	13	0
I.T.	13	7	17	0	22	0
ASP/POT	18	21	40	31	17	0
Other	46	36	23	69	48	100

	Aesthetic MAKE	Aesthetic MAIT	Juridical MAKE	Juridical MAIT	Ethical MAKE	Ethical MAIT
MS	0	0	16	25	22	15
I.T.	0	0	5	0	6	0
ASP/POT	58	8	26	63	28	0
Other	42	92	53	12	44	85

	Pistic MAKE	Pistic MAIT
MS	19	0
I.T.	4	0
ASP/POT	58	100
Other	19	0

SENSITIVE ASPECT

EMERGENT GENERALISATION

ANALYTIC ASPECT

EMERGENT GENERALISATION

FORMATIVE ASPECT

LINGUAL ASPECT

SOCIAL ASPECT

ECONOMIC ASPECT

AESTHETIC ASPECT

JURIDICAL ASPECT

ETHICAL ASPECT

PISTIC ASPECT