# Exploring the Role of E-learning Practices in Protecting Secondary School Education After Violent Conflict

## Case Study

## Secondary School Education in Libya



Thesis submitted in accordance with the requirements of the University of Salford for the degree of Doctor of Philosophy

## Hussein Essadi

## October 2021

# Table of Contents

# LIST OF FIGURES

# LIST OF TABLES

# ACKNOWLEDGEMENTS

Praise is to Allah the Almighty God of the Universe from whom I come and belong.

There are many people I would like to thank for a huge variety of reasons. Unfortunately, it is not possible to list everyone who has helped me in some way with this thesis.

But I want to express my deep gratitude to my supervisor Prof Zeeshan Aziz, whose commitment, persistent encouragement and invaluable advice have sustained me throughout the various stages of this research.

And to my Mother, I want to express my thanks for giving me constant encouragement and support. Lastly but by no means least, I acknowledge my wife and my children for their unending patience, kindness, and support.

# DECLARATION

The work presented in this thesis entitled Exploring the Role of E-learning Practices in Protecting Secondary School Education After Violent Conflict (Case Study: Secondary School Education in Libya) is to the best of the researcher's knowledge and belief, original.

I hereby declare that this thesis is my own work and effort. It has not been previously published or submitted for the award of any academic degree; nor does it contain the work of any other person, except for instances where due acknowledgment has been made in the text.

# ABSTRACT

**Background:** It is reported that approximately 2,000 schools in Libya were damaged between 2011 and 2013, and that within the month of November 2016 a further 477 schools were damaged and another 30 schools were destroyed in Tripoli and Benghazi. This poses a substantial threat to Libya's education system, since experts suggest that countries facing violent conflicts and warlike situations may require a period of 20 to 25 years before they are fully recovered.

E-learning is considered to provide a solution to the problem of how to educate in conflict situations since it dispenses with the need for physical buildings, and can compensate for the lack of teachers, learning materials and transportation facilities, and increasing poverty in the country caused by violent conflict. Additionally, it provides the opportunity through the use of ICT to keep up with the developed world.

**Aim:** The aim of this study is to provide a framework to elaborate how e-learning systems can address the financial, security and administrative challenges facing secondary school education during the Libya's post-conflict recovery period.

**Methodology**: Ontologically, the study is based in relativism to allow for an exploration of the multi-realities of conflict within the secondary education system in Libya. Epistemologically, social constructionism is used to explore the socio-economic, political and cultural meanings attached to the offer of e-learning to secondary school children in Libya. Semi-structured interviews are conducted with major stakeholders of secondary education in Libya; therefore, a qualitative research method and an inductive approach are employed for the study.

**Results:** The findings reveal inadequate financial resources, damaged infrastructure (school buildings, transport, roads, computer labs, electricity), poor security and safety as key barriers to the re-commencement of secondary school education in Libya. Additionally, they show that many teachers, students, and their families have lost their personal assets, lives, houses, and shifted in attitudes towards public school education through becoming homeless due to the violent conflicts. Furthermore, the number of disengaged students and unemployed teachers has risen as have their general feelings of insecurity. It is concluded that the Libyan government must accumulate financial resources to develop electricity supplies, the internet system, roads, and ICT infrastructure that can support e-learning in secondary education in the southern cities. In this respect, it should engage international donors in order to generate maximum funding for investment in the development of the ICT infrastructure for students in Libya.

**Contribution:** The study is the first to consider how Libya's violent conflict has influenced its educational system and how e-learning can represent a transition within that system during the post-conflict situation. It makes a significant contribution to academia and practitioners through its engagement with the major stakeholders of secondary education to ascertain the exact damage to that and the awareness of the need to recover the situation. Additionally, it provides a theoretical framework, developed from four theories, to underpin the introduction of an e-learning system as an alternative method of educating secondary school children in the aftermath of violence and conflict.

# CHAPTER 1 INTRODUCTION

## PREAMBLE

This chapter introduces the key themes within the study. It provides some background to the Libyan secondary school context as it has emerged through some years of internal violence and conflict, and some detail of the wider Libyan context. It also indicates the motivation for the study and sets out the research questions, which give rise to the study's aims and objectives. The contribution of the study is outlined and the chapter concludes with a diagrammatic representation of the study.

## 1.1 INTRODUCTION

The traditional pattern of face-to-face schooling often becomes difficult in violent conflict situations because both teachers and learners are likely to be unable to physically attend their schools. This has happened in Libya, and unfortunately, according to the country's Educational Minister, the re-commencement of traditional schooing faces many barriers, such as lack of infrastructure, funding and teacher training (Global Coalition to Protect Education from Attack [GCPEA]: Education Under Attack in Libya's War, 2018). Furthermore, dangerous and poor working conditions hamper efforts to restart education and enhance the growth of students (Khalil & Halis, 2017).

The repercussions of armed conflicts have serious implications for a country including loss of lives, social loss, migration, loss of houses leading to emigration, and loss of education, and it is estimated that recovery from such losses takes on average between 20 and 25 years (Akbulut-Yuksel, 2014, p. 635) because of the many different resources required to rebuild the public infrastructure. Given this estimate, concerns about children's education are particularly pertinent, as there has been no progress on its restoration since the comment was made by Boduszyński & Pickard in 2013, that Libya had not even entered its recovery phase because of the remaining armed conflict in different regions of the country.

Previous studies (Fagan, 2009; Blattman & Annan, 2010; Bair, 2011; Amusan, 2013; Valente, 2014; Collelldemont Pujadas, 2015; Khan & Hyndman, 2015; Elsafti et al., 2016; Paksuniemi, 2016; Haer & Böhmelt, 2017) have highlighted the immoral impacts of the civil war and conflict, one being the involvement of children within it since they have not been engaged in full-time education. Hence, there is an urgent need to study the best way to provide secondary

school education in conflict zones in an effort to disengage children from such violence. At the same time, it is necessary to remember that recovery is some decades away, and therefore, as noted by Akbulut-Yuksel (2014), there should be an alternative way of delivering children's education during the interim period to safeguard the intellectual development of a generation. One way of doing this is to switch to a remote learning model, using e-learning as a means of reaching children in their homes. Indeed, the coronavirus pandemic has shown that globally, schools are now using e-learning in environments where schools are closed and children are exposed to gaps in their education (World Economic Forum, 2020; Hefnawi, 2021).

Specifically, the educational gaps experienced by children in conflict situations, can be seen to be linked theoretically which include lack of literacy and involvement of children in conflict, Cremin & Guilherme, 20016). Violent conflict is known to damage the physical fabric of schools (Fetouri, 2016; Vandewalle, 2018) which cannot be repaired due to damage to public infrastructure (Fetouri, 2016), weakening community support as people migrate in their thousands to safer cities (Justino, 2016), and loss of education funding as this is redirected to ensure supplies of arms (Lai & Thyne, 2007). Children are also denied education when their schools become inaccessible as they are occupied as military bases (O'Malley, 011; GCPEA. 2014), and teachers may join the armed forces, thereby depleting the skills base in the education sector (Akresh & De-Walque, 2008; Jones & Naylor, 2014). The outcome for children is seen as caused by a series of interlinked factors therefore, leading to a lack of continuity in education, and the children's inability to build complete conceptual frameworks in different subjects.

In the specific case of Libya, Amusan (2013) has suggested that children's education be addressed through new legislation, international collaboration, and the introduction of an alternative education system but so far, no concrete educational solutions have been proposed. This failure would seem to be in line with the literature on the aspect of education in conflict regions, which whilst increasing rapidly (Bensallah et al., 2000; Anderson et al., 2006; Davies, 2004; Seitz, 2004; Salomon, 2004; Bekerman & McGlynn, 2007), is mostly concerned with the actual education in physical schools, the reconstruction of public education, and improvement of inter-group understanding and dialogue at primary and secondary school levels.

Given the evidence of successful e-learning during the coronavirus pandemic (Hefnawi, 2021; World Economic Forum, 2020), this would seem to be a potential way forward in the Libyan environment which is now devoid of physical education facilities and infrastructure.

As a concept, e-learning has developed from the idea that formalised teaching can be improved by electronic resources, and in this respect Haythornthwaite and Andrews (2011) note that

computers and the internet are integral parts of the concept, enabling learning to occur both inside and outside the class. E-learning also brings the potential for delivering education and skills development to endless numbers of students at different times (Clark & Mayer, 2016), and indeed is unbounded by geography or classroom size. In many cases, educational programmes can be provided entirely online (Littlejohn & Pegler, 2007), with or without a teacher present, providing a distance learning (Allen, 2007) opportunity, or a live experience which enable interactions in real time (Politis, 2008). However, Wright (2007) has observed the need for some sense of responsibility among students using e-learning platforms, and in any Libyan adoption of such a model, this must be taken into account. Likewise, it must be recognised that local socioeconomic, cultural and political circumstances must be considered (Hongcheng & Minhui, 2010; Quilley, 2018; Sparks, 2014; Rivauzi, 2015; Rivauzi, 2015) and in this respect, the detailed background to the Libyan context is now presented. Given the evidence of successful e-learning during the coronavirus pandemic (Hefnawi, 2021; World Economic Forum, 2020), this would seem to be a potential way forward in the Libyan environment which is now devoid of physical education facilities and infrastructure

## 1.2 BACKGROUND

Under the leadership of Al-Qadafi, Libya had a long history of conflict with the USA, but since the leadership crisis which removed Al-Qadafi, there have been many other challenges such as lack of security, safety, and damaged infrastructure (Bellamy & Williams, 2011; Elabbar, 2016), as violent conflict among armed groups increased across the country (Vandewalle, 2018). Mindful of the impact of this conflict upon education, there have been some plans to integrate ICT into education (Vandewalle, 2018; Elabbar, 2016).

It is understood that government support, collective efforts, training of teachers and students are major factors for a successful national education system, and specifically in the case of Libya it is clear that these factors are not present as the conditions of schools and universities in the south and east of the country are not to the same standard as those in the west. The rising incidence of violence in Libya has made it impossible for teachers and students to remain in schools (GCPEO, 2018), and the threat to life has forced migration from one city to another or to refugee camps in attempts to be protected from different armed militia (Vandewalle, 2018).

Absence from school is understandable in these ever-changing circumstances of conflict, and in prolonged conflict there is a need to prioritise efforts to introduce a new education system with the help of stakeholder collaboration (Raji, 2017) that enables Libyans to compete in the

employment market at home or internationally (Benamer, et al., 2009; Mohsen, 2016; Ibrahim, 2017). Without such prioritisation, the education gap will prevail for many years, since as noeted by Amusan (2013), Libya's recovery from civil war and conflict is not guaranteed and this is impacting negatively upon Libyan children. Other scholars give the same message, arguing for social and legislative measures to facilitate educational change (Goldstein, 2011; Ignatieff, 1998: Cohn, 2013; Zack-Williams, 2012; Dallaire, 2010). This is emphasised by the fact that the closure of private schools has forced more than one million children normally educated in that sector to turn to Libya's public (free) schools (Fetouri, 2016), meaning the need for more efforts in the area of alternative delivery.

## 1.3  IMPORTANCE OF THE STUDY

Previous studies have highlighted that e-learning platforms are useful in post-conflict situations because they protect children's education, offer security in a risk-free environment, can engage the maximum number of students, and can offer quality education when traditional education facilities (e.g. school buildings, trained teachers, supplies of books and writing materials) are not available (Ananga & Biney, 2018; Al-Azawei, Parslow & Lundqvist, 2016; Rajab, 2018). This study is therefore important because of its exploration of e-learning as an alternative to the physical education infrastructure within post-conflict zones. In particular, it investigates the specific situation of Libya, whose the post-conflict recovery period as yet, has no envisaged end.  In this case it is important to establish how the best practices in e-learning within the developed world could effectively be transferred to post-conflict zones within developing countries, since so far there is a lack of understanding in this respect.

The current study will provide rich insights regarding the viability of e-learning in the context of security and safety threats in developing countries. It is is expected to make a significant contribution to academia and practitioners in several ways. For example, the study uses four theoretical bases (AMO, TOE, DOI, and Institutional Theory) as a framework for understanding how e-learning can be feasible and effective at the individual and institutional levels. It shows how educational practitioners within Libya can create alternative education systems that require less resources and prove effective especially when uncertainty about security and safety is high, and when the absence from school/education generally has become prevalent, and the educational offering varies from region to region, creating inequalities in access and opportunity. Hence, the study contributes to the literature by exploring e-learning effectiveness and offering a comprehensive Post Conflict E-Learning Model.

The study also makes a contribution to practitioners' understanding as in proposing the e-learning solution as an alternative to the physical education infrastructure during the post-conflict recovery period of the country, it provides concrete help to head teachers, administrators, teachers, researchers, and students regarding how to deliver good secondary education in the presence of damaged public infrastructure.

## 1.4 RESEARCH QUESTIONS

Based on the previous discussion, and the identified knowledge gap relating to the lack of understanding of the adoption of e-learning approaches within post-conflict zones, the following main research questions are established:

1. What are the infrastructure requirements for, and barriers to, the introduction of e- learning as an alternative education system within post-conflict zones?
2. What are the major advantages of offering e-learning as an alternative education system for secondary schools in Libya?
3. What are the key learning challenges for secondary schools within post-conflict zones, particularly in Libya?
4. Can e-learning systems prove to be effective as an alternative education model within post-conflict zones?

## 1.5 AIM AND OBJECTIVES OF THE STUDY

The major aim of this research is to develop a theoretical framework through which to explore how e-learning can support secondary education in a post-conflict zone, particularly Libya. To achieve this aim the following objectives are identified:

1. To identify the key challenges in secondary education within conflict zones through a critical literature review, with particular reference to Libya.
2. To critically evaluate the existing infrastructure and barriers to the introduction of e-learning as an alternative education system in post-conflict zones with a specific emphasis on Libya.
3. To undertake a qualitative empirical study to establish the views of stakeholders.
4. To present a decision support framework to facilitate the introduction of an e-learning system.

## 1.6 RESEARCH PROBLEM

According to Unicef (2018), the post-conflict situation in Libya has left 1.1 million individuals in need of humanitarian support, and of these there are 378,000 children requiring primary facilities (e.g. hygiene, sanitation, safe water, and education), and 343,200 children are looking for shelter, security, and protection. Whilst some basic education facilities for children in refugee camps have been arranged, these are limited (Unicef, 2018; Unhcr, 2018), and essentially the education of all children has been negatively affected as the post-conflict humanitarian effort has focused on the provision of food, shelter, clothing, water, and health facilities (Fetouri, 2016; Unicef, 2018; Unhcr, 2018). Indeed, over 115,000 students have been deprived of their education (Zinhau, 2020), not least because as indicated by Unicef (2020), 90,000 children had to move from their homes in 2019, tens of thousands of whom have lost their traditional place of education. This has brought the specific problem of needing to explore the role of these key influencers on children's education, and consequently, this study focuses on this issue within the context of post-conflict zones, with an emphasis on Libya.

However, there is a lack of literature regarding the effective deployment of e-learning practices in post-conflict zones in developing countries facing the unique challenges of lack of funding, security risks, damaged infrastructure, migration of citizens, and other crises (i.e. the provision of food, shelter and hospitals is a top priority). Previous studies (e.g., Alkabashi & Wu, 2009; Loops, 2016; Gadour, 2006; Khalil & Halis, 2017; Fetouri, 2016) have summarised the various factors that negatively influence the introduction of e-learning systems into a school setting including for instance, the lack of adequate infrastructure and digital device accessories, non-availability of skilled people who can facilitate, manage and maintain the deployed digital facilities, limited professional training programmes, cultural barriers and resistance to the change.

In this respect, it is known that resistance exists to the idea of changing the traditional pedagogical method for a new and innovative delivery method, that the government sector dominates in the field of education thereby reducing the contribution of the private sector, and that the ineffective reward system for teachers and other education stakeholders deters individuals from wanting to innovate. Indeed, such barriers to e-teaching and e-learning have been understood for over a decade (see e.g., Assareh & Bidokht, 2011).

However, even if these strong demotivators did not exist within the Libyan context, there is still the very immediate and important problem of the widespread lack of understanding of how to

offer an alternative technology-based education school system in a post-conflict period. This presents a real problem for the effort to implement e-learning as an alternative education learning method.

Additionally, it is essential to recognise that the local context of Libya ceates a uniqueness of circumstance that might mean models of e-learning implementation that have been successful in the wealthy environments of the advanced countries will be unsuccessful in Libya's post-conflict situation. Therefore, it is important to fully understand the local context of Libya by engaging local stakeholders whose opinions are helpful in exploring the enablers, challenges, and barriers regarding the existing educational system and proposed changes. This should help solve the problem of how Libya can respond to the educational needs of secondary school students by introducing an e-learning education platform that does not require transportation, the physical availability of teachers and students, travelling time and associated costs, school uniform or other expenses associated with study materials.

## 1.7 CONTRIBUTION OF STUDY

The current study contributes by offering an alternative platform for secondary school students in Libya who are being denied education by virtue of the many post-conflict difficulties already mentioned. It does this having considered the major academic theories underpinning technology adoption and institutional behaviour. The study is the first to demonstrate how violent conflict on a national scale can negatively influence the educational system and how e-learning can prove effective in the transition from the original/traditional educational system to a newly-constructed one. Practically, the study makes a contribution in standing as a model highlighting how stakeholders can engage and introduce an e-learning system that can be effective in the local cultural setting in Libya.

The overall recommendation is based on the academic theories, with Institutional theory (Oliver, 1991) and AMO theory (Wright & Grant, 2010) being used to deal with the institutional setting, and the TOE framework (Tornatzky and Fleischer, 1991) and DOI theories (Rogers, 1995) being used to deal with technological implementations at the institutional level. Therefore, the proposed framework takes account of both the institutional and technological perspectives necessary when introducing a new e-learning schooling system in Libya, thereby making a contribution to the literature, that being the Post Conflict E-Learning Model. The current study can support institutional, individual, political, educational leadership and technological perspectives, all of which have a bearing on the recovery or transition of

educational systems in the post-secondary school setting. The propose d framework has been validated with the group discussion of the 6 participation and these participation were selected during the first stage of data collection of semi structured interviews

## 1.8 STRUCTURE OF THE THESIS

**Chapter 1 Research Introduction:** This chapter introduces the key themes within the study. It provides some background to the Libyan secondary school context as it has emerged through some years of internal violence and conflict, and some detail of the wider Libyan context. It also indicates the motivation for the study and sets out the research questions, which give rise to the study's aims and objectives. The contribution of the study is outlined, and the chapter concludes with a diagrammatic representation of the study.

**Chapter 2 Literature Review:** This chapter explores the literature of relevance to the research study. It includes a conceptual analysis of conflict, distinguishing it from war for the purposes of the study. The precise situation of how violent conflict impacts upon school education is considered and e-learning as a potential learning platform is also analyzed to show its differences from other learning concepts. It then discusses the stakeholders in the system. This chapter provided broad coverage of the literature appropriate to the study, considering conflict theories as a conceptual framework, the impact of conflict with a focus on education, and e-learning as a concept that has something to offer nations whose educational provision has been severely damaged by conflict.

**Chapter 3 Education in Conflict: State of the art review:** This Chapter presents a review of the literature relating to education in conflict. It highlights the impact of the violent conflict in Libya on the educational infrastructure of secondary schools. Furthermore, it examines whether any technological initiatives have been taken to address the educational needs of secondary school students. Various conflict theories that have been discussed have highlighted how violent conflict can damage infrastructure, education, health, economic development, employment, and the basic human rights of residents. After reviewing the information available on violent conflict in Libya, the present study has described how the seven year long violent conflict has damaged the school infrastructure, time spent in education, and the learning opportunities of secondary school students.

**Chapter 4 Research Methodology:** This chapter presents the philosophical underpinnings of the research, the overall methodology and details of the precise methods used. It also indicates how the research was conducted. Social constructionism lends support to the idea that people

are bringers of change in education therefore, qualitative research methods and tools have been justified in this chapter.

**Chapter 5: Identification of the Challenges of Education in Libya:** This chapter focuses on the results obtained from the face-to-face interviews with the 44 different employees of the Ministry of Education. It presents the main findings, explains these, and discusses the significance arising from them. This chapter has highlighted the details of the thematic analysis from which three major themes were extracted, these being: the main challenges for secondary school students, the current infrastructure and barriers to introducing e-learning, and the enablers and benefits of e-learning in situations of educational crisis. From the perspective of the main challenges for secondary school students, the analysis revealed that life threats, murders, kidnapping, and children trafficking are high for students at secondary school level.

**Chapter 6 Proposing a framework for the implication of e-learning in Libya:** This chapter discusses the main findings reported in the previous chapter. An explanation of the key results is given, and the most significant findings are discussed with respect to the findings of previous studies.

**Chapter 7 Conclusion and Contribution:** This chapter will focus on the conclusion and recommendations as well as presenting the most important scientific contribution in the study field of learning and e-learning.

## 1.9  SUMMARY

This chapter has introduced the research study focusing on the background to the study, the research questions that highlights, the aim and objectives of the research, and the rationale that exists for wanting to pursue these. It also briefly considers the theories in which the study is grounded, and the contribution its outcomes make to academia and practitioners.  A review of literature on conflict on the one hand, and e-learning on the other follows.

# CHAPTER 2 LITERATURE REVIEW

This chapter explores the literature of relevance to the research study. It includes a conceptual analysis of conflict, distinguishing it from war for the purposes of the study. The precise situation of how violent conflict impacts upon school education is considered and e-learning as a potential learning platform is also analyzed to show its differences from other learning concepts. It then discusses the stakeholders in the system.

## 2.1 CONCEPTUAL ANALYSIS OF CONFLICT, ITS TYPES, AND IMPACT

### 2.1.1 Conflict definition

Conflict is a phenomenon comprised of three elements: attitude, incompatibility of goals, and behaviour (Mingo, 2016). The incompatibility paves way for a conflicting situation to arise (Mitchell, 1981), with the parties or actors in that situation believing that the other side is blocking the realization of the goal (Zannier, 2017; Beitelmal et al., 2017). This provides the starting point for the conflict to arise. It is from this point onwards that all the elements of conflict begin to interact with each other to constitute Mitchell's Conflict Triangle Model (Demmers, 2016). Goals are regarded as the desired results, end states, or conditions which are intrinsic in nature. Another element in a conflict is the attitude of the parties (Tajfel & Turner, 1979), which represents the psychological state of mind of those parties. As such it comprises emotions, attitudes, and evaluation as well as the misperception (Amusan, 2013). However, it is important to note the difference between cognitive process and emotional orientation (Engström, 2016). Cognitive process comprises tunnel vision and stereotyping whereas emotional orientation comprises distrust, angry feelings, fear, resentment, envy, and suspicion of others (Conteh-Morgan, 2004). Behaviour is the third element in the concept, and this refers to the action which one party undertakes in a situation against another party so that the other party modifies its goals (Elsahati et al., 2017). The triangle model of conflict shows that conflict is a dynamic process whereby attitudes, incompatibilities and behaviour change constantly as parties try to influence each other (Ezeoha & Ugwu, 2015). The formation of conflict may transform and widen thereby drawing in new issues and actors. It can also give rise to secondary conflicts with outsiders and main parties (Murray, 2019). There is also a strong link between conflict elements and dialectics (Sowers et al., 2017; Yılmaz, 2012; Bowsher et al., 2018).

## 2.1.2 Nature of Conflict

The literature also confirms that the nature and impact of violent conflict has different social, economic, infrastructural, educational, cultural and other effects which vary among situations and countries (Cremin & Guilherme, 2016; Cohn, 2013; Pherali, 2016; Hojbotă et al., 2014; Zack-Williams, 2012). Some studies, for example, have investigated the impact of violent attacks on schools and suggested the introduction of feasible curricula (Cremin & Guilherme, 2016; Pherali, 2016; Hojbotă et al., 2014), but the situation is different where school buildings are destroyed, families migrate, uncertainty about life risks is present, there is a lack of financial and other resources, and people are unmotivated and afraid to continue schooling. According to previous studies, it is not easy to motivate and re-engage stakeholders in the busines of returning to school in violent conflict situations; hence, it is essential to understand social, economic, political, and educational realties before suggesting any proper solution (Cremin & Guilherme, 2016; Pherali, 2016; Hojbotă et al., 2014). Additionally, there is no guarantee that violent conflict will not recur, and as noted by Akbulut-Yuksel (2014), it is therefore necessary to devise strategies that can work in uncertain situations.

Mitchell (1981) argued that conflicts are never static because the underlying reasons are many and varied, including for example, human rights abuse, historical resistance, and socio-economic marginalization (Spassov, 2014). Where conflicts become violent, they are seen to be based on two significant elements: transcendent goals, and emotional involvement (Engström, 2016). Specifically, conflicts come to embody violence when people are emotionally caught up in them, and such involvement can increase with group interaction that in itself gives rise to moral boundaries around the goals and values of the group (Lund, 1996). The more an individual is involved in a group, the greater is the influence of that group's values on that person, and the greater the potential for conflict to turn violent (Engström, 2016; Tajfel & Turner, 1979).

Three factors of the social aspect in nature constitute the foundation of violent conflicts in a society, these being: the organization's technical/social/political conditions, the manner of regulating disagreements in a society, and the deprivation level (Engström, 2016; Jeong, 2017). These give rise to three conditions associated with whether a conflict escalates into violence; specifically, the more a group has met social, political, and technical conditions the less likely it is that it will become violent (De Jong, 2010).

There is also a negative relationship between violence and legitimate ways of regulating conflict, meaning that if there are legitimate ways of regulating disagreements in a society it is less likely that a conflict will arise (Williams, 2017) because the parties tend to resort to resolve their issues through judicial or political mechanisms where such paths are available (Jeong,

2017). However, this route is only possible when both parties recognize the cause of the conflict even if the desired outcome is different (Jeong, 2017).

### 2.1.3 Violence impact on education system

To identify and assess the different violence types prevalent in the education system, the current study employed Galtung's (1990) Violence Triangle which allows structural, direct, and cultural violence to be highlighted. Galtung (1990) defines violence as an (avoidable) impairment of survival, freedom, wellness, and identity. If a need can be fulfilled but remains unsatisfied, that situation can give rise to violence, but that violence can be avoided (Cremin, & Guilherme, 2016; Pherali, 2016). Direct violence occurs when there is an immediate relationship between its recipient and perpetrator, as for example in the murdering of teachers or school staff or school attacks (Cremin & Guilherme, 2016; Pherali, 2016; Hojbotă et al., 2014). Structural violence on the other hand takes place when the perpetrator of violence cannot be easily identified as for instance in the case of unequal opportunities in life occasioned by the urban-rural gap, public policies, and poverty. And cultural violence is seen when a culture is employed to legitimize violent actions in a direct or structural form (Cremin & Guilherme, 2016); it represents the legitimization of structural or direct violence based on existing values and norms against an ethnicity, linguistic group, or religion (Galtung, 1990; Pherali, 2016). Moreover, the Violence Triangle of Galtung (1990) shows that structural and cultural violence can give rise to direct violence which in itself represents the behaviour which reinforces the cultural or structural violence in a triangle (Galtung, 1990). The roots of direct violence are found in cultural violence or structural violence (Cremin & Guilherme, 2016; Galtung, 1990). Often the reason underlying conflict and violent conflict is the sense of deprivation stemming from a particular culture or structure of the society. When this sense of deprivation remains unaddressed it can give rise to violent conflicts.

## 2.2 THEORIES OF VIOLENT CONFLICT

### 2.2.1 Social Identity Theory

Tajfel and Turner (1979) observe that three mental processes are involved in evaluating whether someone is 'one of us' or 'one of them' (i.e. whether someone belongs to our group or not). The first of these processes is 'categorization' in which an attempt is made to determine people's identity and understand them (Herriot, 2014) after which they are classified as falling into one group or another. McLeod (2008) notes that this is done in order to understand the social environment, and that the categories we use comprise ethnicity, colour, background,

religion, social status, employment status, among others. Such categorization is also used to understand things about ourselves (McLeod, 2008; Herriot, 2014). Behaviours are ascribed to people according to categorization (Dahrendorf & Collins, 2006) such that the observation of particular behaviours prompts a classification, and conversely the attribution of a classification prompts an expectation that individuals in it will behave according to the stereotype. At a given point in time a person may be categorized into various groups simultaneously.

The second process is that of social categorization (McLeod, 2008) which concerns the identity of the group. For example, if an individual identifies him/herself as a student, s/he is likely to begin a personal alignment with what is expected of students, and this brings some emotional significance in the form of emotional attachment to the group. Consequently, self-esteem is raised as the sense of belonging to a particular group is enhanced (Herriot, 2014).

The third process is that of social comparison, which as noted by Dahrendorf and Collins (2006), occurs after an individual has categorized him/herself as belonging to and identifying with a group, and involves a comparison being made with other groups. For self-esteem to be maintained, that comparison must be favourable. This is the point at which prejudice arises with respect to one's group or that of another group (Fetouri, 2016); once two groups identify each other as rivals, they start to compete to maintain their self-esteem (Herriot, 2014).

Hostility and competition among groups is, therefore, not only an issue of a fight for resources, but also one of fighting in a bid to assert identity. And in Libya, several groupsy such as the LNA, Tebu, Tuareg, GNA allied forces, Islamic State forces, and various other unknown factions, are fighting for precisely that aim (Vandewalle, 2018). Some groups are even recognized by foreign and national governments while others are declared terrorist organizations (Fetouri, 2016; Vandewalle, 2018); and some may act informally such as for local town protection or for the protection of particular ethnic groups. To support their cause financially, these groups tend to resort to public funding, smuggling, kidnapping, extortion, etc., and it is noted (see Elabbar, 2016; Fetouri 2016) that they can even become strong enough to control the public infrastructure such as oil fields, water or electricity infrastructure. These groups thrive through a policy of juvenile recruitment, often targeting teenagers who are easily emotionally exploitable. The consequence is that the groups can then become violent, and as the overall security of the country weakens they can resort to destroying the public infrastructure such as roads, buildings, water sanitation, gas pipelines, schools, colleges, etc., similarly to what is happening in Libya (Bellamy & Williams, 2011; Elabbar, 2016; Fetouri 2016).

### 2.2.2  Conflict Theory

According to Morissette (2013), conflict theory argues that human society is always in a state of unending conflict that is mainly due to fierce competition for restricted resources. This theory postulates that it is the domination of one group through its possession of resources that holds sway and is thus able to maintain social order through that power instead of by seeking consensus as well as conformity (Fuchs & Dyer-Witheford, 2013). Those amassing wealth as well as power aim to exercise authority by whatever means necessary, but mainly through subduing the poor as well as powerless (Neesham & Dibben, 2016). The idea is embedded in this theory that individuals as well as groups within a society strive to capitalize on maximum benefits (Ypi, 2014). Using this premise, conflict theory holds that conflicts arise from the opposing groups constituted by human behaviour in different social contexts (Paredes Goicochea, 2018).

Conflict theory finds its origins in the studies by Karl Marx in the middle of the 1800s (Bond, 2013). Human society was perceived by Marx to embody multiple conflicts, arising from within different social classes, and particularly concerning those with access to economic production and those without (Pradella, 2017). Succeeding thinkers have developed different versions of conflict theory building on the common theme that there exists inequality of power among different social groups within a society, and that struggle ensues to gain control of more of those resources that are limited and unequally distributed (Kangal, 2016). And this theory can be deployed to delineate different human behaviours in various situations, such as in educational practices where one or the other strives to maintain or challenge the status quo (Ricciardi, 2015).

### 2.2.3  Defying Conflict Theory

Conflict theory is helpful in shedding light on how deeply-rooted social phenomena precipitate situations of war, revolution, unequal wealth, poverty, discrimination, and domestic violence (Raekstad, 2018); and can be used in analyzing some of the major problems of democracy, the struggle for civil rights, and situations where the idea is to control the masses rather than seeking to maintain social order as a heartfelt desire (Memos, 2013). The theory finds reality in concepts around social inequality in the allocation of resources focusing on the existence of conflicts between classes. Additionally, it enables the description of different kinds of conflict (Sing & Younes, 2013). A number of theorists like Marx believe that intrinsic conflict drives society towards progress and development. Others seek to curb conflict by developing co-operation among different types (Krätke, 2018).

### 2.2.3.1 Class Conflicts

As presented by Marx, conflict theory presents the conflict confronting both primary classes, the bourgeoisie as the affluent class of the society, and the proletariat as the working as well as the indigent class (James, 2014). When capitalism emerged, it was theorized by Marx that a minority section of the populace, i.e., the bourgeoisie, behaves as a parasite in coercing the majority of the population, i.e., the proletariat (Casal, 2015). The prevalence of this kind of thinking has developed a peculiar image of conflict theory-oriented models that address society; clinging to the philosophy of managing a pyramid that illustrates the dictat of a small section of elites exercising control over resources and power bases, and imposing their terms and conditions on larger segments of society (Goicochea, 2018). This ideological coercion serves to preserve the unequal distribution to ensure that the smaller bourgeoisie do not find themselves in the position of being forced to accept revised conditions at the hands of the proletariat (Ross, 2015). Logically, therefore, the theory proceeds with the contention that elites will establish systems based on laws and traditions along with other structures of society not only to reinforce their dominance but to also preclude others from creeping into their ranks (Rustin, 2008). Marx held the belief that as devastating as the conditions in society were, the mutual consciousness of society can overcome the fate of the working class and the poor and the inequalities promoting that, through an uprising of the majority. If the prevailing circumstances address the problems of the proletariat, the conflict reduces (Coulomb & Bellais, 2008).

Many social theorists have undertaken studies based on Marx's conflict theory, seeking to reinforce and develop it. Antonio Gramsci, a forward-looking Italian scholar considered the unanswered question of whether Marx could see the revolutionary growth of his theory during his lifetime (Comninel, 2013). In this respect, it is believed that the theory was ideologically immense way beyond the realization of Marx, and more research work is considered necessary in a but to counter cultural hegemony (Athens, 2012). Critical theorists such as Max Horkheimer and Theodor Adorno responded to this belief in initiating research from the platform of the Frankfurt School focused on investigating the causes of mass culture that produce art, media and music on mass levels, whilst contributing to maintain cultural hegemony (Lafferty, 2016).

Ganev (2015) notes that Wright Mills used conflict theory to examine the factors leading to the emergence of a the small 'power elite' comprised of economic, military, and political personalities that has ruled America since the 20th century. And many researchers have used conflict theory to germinate new theories in the area of social sciences, e.g, in feminist theory,

postmodernism, critical race theory, post-colonial theory, post-structural theory, queer theory, and theories on globalization along with world systems (Furner, 2014). Although in its beginning conflict theory focused on class conflicts particularly, it went on to borrow with the passage of time from among the other types of conflict including gender, race, sexuality, culture, religion, and nationality as a section of prevailing social structures and the way these affect our lives (Pradella, 2016).

### 2.2.3.2 Competition

Conflict theorists are of the belief that competition is referred to as a persistent and over-riding factor that makes it an integral part of human bondage and interface. Competition comes into being on account of the tussle to gain control over limited material resources like money, property, and commodities (Adler, 2012). Another form of conflict arises over the control of intangible resources among individuals and groups, such as leisure time, hegemony of social status, dominance, sexual partnerships, and several other allied factors. It is further assumed by conflict theorists that competition exists in the form of a default setting instead of co-operation (Piterberg and Veracini, 2015).

Conflict theorists assume that, revolution is the ultimate outcome of conflicts arising among the social classes (Buchowski, 2015), since their belief is that problems among groups cannot be solved by an evolutionary adaptation of power dynamics. The results of such conflicts are the germination of conflict and a sprinking of effects among the groups (Jonna & Foster, 2016) and rapid changes in the power dynamics are demanded on a vast scale being taken abruptly rather than moving gradually and in evolutionary form (Smith, 2018). Additionally, conflict theory vehemently assumes that inequalities in human relationships as well as social structure are attributed to power disparities (Renault, 2013), seen in the fact that many groups and some individuals gain access to power and rewards whilst the majority do not (Hedrick, 2014). In the aftermath phase, those groups and individuals who continue to receive benefits from a particular society's structure work to strengthen that structure in order to maintain and augment their power (Weston, 2012).

### 2.2.3.3 Conflict Theory: Marx's Visions on Capitalism

Marx envisioned capitalism in the wake of the evolutionary progression of different economic systems envisaging it as rooted deeply in commodities highlighting a number of things either purchased or wholesaled (Polillo, 2011). For instance, he regarded labour as a form of commodity. But as labourers have no means to exercise control or exhibit power in the prevalent economy due to lack of means, materials or factories, their worth as a commodity is diminished

(Fuchs et al., 2013), thereby allowing for inequity between business owners and their workers, and setting the scene for social conflicts. These problems, according to Marx can only be resolved by a socio-economic revolution (Brown, 2014).

Also considering Marx's conflict theory, Max Weber subsequently refined the concept to develop several of its dimensions (Giouras, 2014) to embody the idea that conflict arising from property does not remain confined to one particular scenario. Rather, Weber believed conflict to be found in different forms and layers at any one given time in society (Parrotta & Buck, 2013). Whilst Marx focused on framing the conflict found among owners as well as workers, Weber made an additional contribution in the form of adding an emotional element to his thought process about conflict (Horowitz, 2014). Furthermore, as Horowitz (2014) argued, this emotional element augmented the power of religion, integrating it within the state power thus making it an important ally and enabling the transformation of classes into affluent groups and treating the territorial communities in the same manner under the name of legitimacy (Salerno, 2018).

The belief system adopted by Weber looked beyond Marx and suggested the inclusion of some new kinds of social interaction in the domain of conflict, spawning beliefs and producing harmony among groups and individuals inside a society (Tomba, 2013). Individuals' perceptive reactions to inequality may be different with regard to their respective groups; they may for instance, consider powerful elites to be lawful (Coe, 2017). Through the lens of conflict theorists, war tends to clean or unify societies (Struna, 2009), and culminates following the grossly increased conflict among groups as well as individuals, and permeates entire societies (Fuchs, 2017). However, whilst the contextual conditions of war necessitate the unification of a society in many ways, conflict persists within different factions of society; and as noted by Buchowski (2015), may even lead to the destruction of a society.

Conflict theory generally seeks to provide a scientific explanation of general forms of conflict which take place in a society, how conflicts begin, and the effects of different conflicts (Hintjens & Žarkov, 2014). The central focus of conflict theory is the unequal distribution of power and resources (Lund, 1996), yet different theorists of this paradigm have approached the 'resources' fom different angles (Jeong, 2017). Nonetheless, the starting point is often the same, that being the three-stratification model of Weber comprising status, class, and power (Lund, 1996). Power is generally seen by conflict theorists as the central pillar of society; society is not regardedas being held together by collective agreement on cultural standards. Fundamental to any conflict is the location of power, and the person who exercises that (Fetouri 2016), and

17

when approached this way, power is not regarded as bad but rather as a regulatory factor in society. Power politics represent the idea that the distribution of interests and powers or an alteration in such a distribution can give rise to instability and conflict (Elabbar, 2016). This is evidence of this from the conflicts occurring place in Libya among different groups which are all striving to draw the lines of authority and redraw the judicial system (Vandewalle, 2018).

Additionally, there is a psychological need on the part of individuals to engage in conflict and solve it (Conteh-Morgan, 2004). Hence, a society must provide for the mechanism of conflict resolution.  Sometimes the need to engage in conflict to resolve an issue or draw the line of authority can become explosive (Engström, 2016). Much of the debate taking place about power is from the aspect of power as the enabler of social actions and also the preventer of social action.

It is the two issues of politics and power that underpin the current wars in Libya among different groups. Due to the lack of political consensus and the absence of any conflict resolution mechanism, there are two parallel civil wars occurring in Libya between eastern and western factions (Vandewalle, 2018), fuelled by the political vacuum left after the four decade-long dictatorship of Muammar Gaddafi who held absolute control of the nation's wealth and power in the country (Vandewalle, 2018).

Marx's conflict and social identity theory with its emphasis on power, social, and economic conflict, has particular relevance in the Libyan context and can provide an understanding of how violent conflict has occurred and how it has influenced the public infrastructure, society, and children's education in secondary schools in the country. According to Morissette (2013), Marx's social conflict theory highlights that people in society always try to control the resources especially when they are scarce and the poverty level is high. Likewise, it is documented (see Fetouri, 2016; Vandewalle, 2018) that several armed groups within Libya, such as the LNA, Tebu, Tuareg, GNA allied forces, Islamic State forces, and various other unknown factions have become popular because their participation in violent conflict has been with the purpose of proving their power, authority, social identities, and control over the resources for their personal objectives.

In their actions, these social groups have exploited schoolchildren and made weapon training accessible to them, thereby swelling their ranks in a bid to maintain their control over the public infrastructure and fear in society. And it is due to these groups that most of the school buildings in Libya's southern cities have been damaged, resulting in families and teachers moving away into safe and secure places. According to Morissette (2013), when armed groups use power to

maintain authority over resources and indeed people, then people become afraid and are willing to surrender their freedom in order to save their lives. Moreover, Libya is no stranger to conflict, having a long history of political conflicts and wars with neighbouring as well as developed countries (Bellamy & Williams, 2011; Elabbar, 2016; Obeidi & Obeidi, 2013; Vandewalle, 2018), resulting in poor relationships with the governments of these countries after Libya's expulsion of their workers. Unsurprisingly, this mutual hostility resulted in Libya's neighbours (Egypt, Tunisia, Chad and Sudan) making no efforts to mediate in order to resolve the country's problems. At the same time, these neighbouring countries have limited their imports from Libya and are not using Libya's ports for importation and exportation purposes, both actions negatively influencing the country's economic development and sending a negative signal to foreign investors who have become uninterested in investing their money in a country which has political instability, chronic conflict, poverty, and no control over the resources. These lower levels of investment and exports, coupled with the enduring political instability have substantially reduced Libya's earnings, meaning that spending for social and educational programmes has also been cut (Bellamy & Williams, 2011; Elabbar, 2016; Obeidi & Obeidi, 2013; Vandewalle, 2018). Consequently, international aid organizations have appealed for funds to improve the limited shelter, food, health, and water facilities as the Libyan government has insufficient resources to remedy this situation by itself.

## 2.3  DIFFERENCE BETWEEN CONFLICT AND WAR

Having analyzed the concept of conflict, it seems important to contrast this with the concept of war, especially since the term 'civil war' has been used (see Vandewalle, 2018) to describe the events in Libya in the early years of the conflict. One basis on which the distinction is made is the death toll.

According to historian Spencer R Weart, battle deaths of less than 200 is an indication of a conflict rather than a war (Buvinić et al., 2014), but Harvey (2001) believes that battle deaths of less than 100 deaths is a more appropriate figure for failed states. And Patel et al. (214) suggest that deaths occuring due to violent conflicts cannot be evaluated this way because they vary with the magnitude of population affected or distressed. Using this assumption, some researchers have adopted the stance that instead of taking death tolls as an absolute benchmark, it should be the proportion of the total population that is negatively affected that is taken as a benchmark (Buvinić et al., 2014).

Uncertainty persists about defining war by the direct effects left by it, and not on the basis of its salient features, causing patterns or purposefulness of functional logic. This defining aspect is widely recognized when war is qualitatively defined (Cunningham & Lemke, 2013). The Working Group for Research adopts this definition for researching the causes of War (AKUF) at Hamburg University, where the inspiration for the definition is that suggested by the Hungarian peace researcher Istvan Kende (1917–1988), who declared "war" to be a "violent mass conflict".

Both sides in a conflict must have at least central control among fighters particularly as one commits controlled armed defence or premeditated assaults in the form of guerrilla operations, partisan war, and so on (Gartzke & Gleditsch, 2006,) but Libya represents a critical region where there is no central control over the fighters on individual sides as the conflict has intensified in local government areas and involved the general public. Armed operations persist, and clashes do not occur occasionally or spontaneously; in other words, a planned strategy enables both sides to wage war irrespective of it happening in either of the societies and its indefinite duration (Cunningham & Lemke, 2013).

President Barack Obama identified a mistake made in 2011 in the handling of the issue of Muammar al-Gaddafi which was done in an unplanned manner, subsequent to which Libya became a victim of anarchy. The Obama administration quickly moved a resolution in the UN that gave the impetus to wage the US-led NATO military action under the pretext of protecting civilians in Libya (Charlson et al., 2014). Rebels eventually killed Gaddafi, and hundreds of civilians were killed as a result of air strikes agsinst Libya by four nations, becoming a combat flashpoint (Zannier, 2017). With the assistance of the United States, the GNA executed strikes against ISIS as well as al-Qaeda. Four states - France, Egypt, the United Arab Emirates (UAE), and the United States along with three native Libyan groups, the Libyan government recognized as the GNA, and a rival group commanded by Field Marshal Khalifa Haftar, executed air strikes (Beitelmal et al., 2014). Considering the concepts of 'war' and 'conflict, as defined above, it is evident that conflict is underway between rival groups in Libya, each of these which carries its respective dominant objectives in different parts of the country. Based on all this background information, in this study, the Libyan situation is defined as a conflict and not a war. Therefore, it will be addressed as the Libyan conflict throughout the thesis.

## 2.4  THE IMPACT OF VIOLENT CONFLICT ON SCHOOL EDUCATION

There are complex and numerous examples of theoretical links between education and violent conflicts (Cremin & Guilherme, 2016). Researchers have shown that violent conflict may disrupt the provision of education as schools can be damaged in conflicts (Fetouri, 2016; Vandewalle, 2018), and the provision of education can also become disrupted due to the occupation of schools as military bases (O'Malley, 2011; GCPEA, 2014), and the recognition that schools could no longer function as educational establishments as was seen during the Ruwanda genocide when all schools there were completely shut down (Akresh & De-Walque, 2008). The repair and maintenance of schools may also not be possible during or after the conflict due to damage to public infrastructure (Fetouri, 2016) and lack of public monies; and as observed by Justino (2016), the upkeep of schools may also become difficult due to fading community support during resulting from the mass exodus that takes place during conflicts. The provision of education may also become disrupted due to teachers leaving their profession to join the armed forces (Akresh & De-Walque, 2008), and the consequent gap in skilled labour in the education sector (Jones & Naylor, 2014). In the case of Libya, separate UN documents confirm that armed groups were using schools to launch attacks in the Warshafana area and the Nafusa Mountains in Libya between March 2014 and January 2015 (GCPEA, 2018).

Moreover, the conflict situation may promote a reduction in education funding as new financial priorities emerge which re-direct monies towards the purchase of arms (Lai & Thyne, 2007) or as the overall economic decline in the country takes its toll (Blattman & Miguel, 2010). This makes it impossible to spend on education as the resources are earmarked for security measures. For example, in Pakistan the public spending on education dropped by 3.1% to 11.4% during conflicts; the same fell by 2% to 6% in Nigeria (Jones & Naylor, 2014). Even the demand for education can fall during conflict situations. In a literature review conducted by Justino (2016), it was argued that there are different mechanisms which contribute towards lessening of demand for education during conflict situations. The first is juvenile recruitment by military groups which use influence, coercion or simply provide an attractive proposition, and the second is the purposeful choice of young people not to attend school because of fear of harm (O'Malley, 2010; Lai & Thyne, 2007).

There is also an interrelationship between conflict and other areas such as public health, and the economy (Blattman & Miguel, 2010; Lai & Thyne, 2007). In health terms, the overall health of children decreases due to poor nutrition, and as documented by Justino (2014), this affects their

ability to attend school regularly and to learn effectively. Evidence of this is found in a study of school outcomes for rural Zimbabwean children by Alderman et al. (2006) who reported that due to conflict and drought, early childhood nutrition was affected resulting in children being admitted to schools at a later age due to poor health. This also led to general low attendance in schools.

The economic well-being of a household is also affected by conflicts (Blattman & Miguel, 2010) since the average household income falls during these times and parents are less likely to afford education for their children (Jones & Naylor, 2014). At the same time, the roles of responsibility in a family may also shift during conflict situations as children may be taking up jobs to meet the needs of the household. This can affect the level of education within a household and subsequently overall literacy rates at a national level (Dryden-Peterson, 2009). Furthermore, in a conflict situation there could also be discrimination among communities which can further affect attendance at school (Ferris & Winthrop, 2010), and also give rise to gender inequalities in society (O'Malley, 2010). For example, girls could be the first to stop attending school due to fear of sexual assault and kidnapping, and research does confirm that there is greater harm to girls during conflict situations than to boys (Buvinic et al. 2013). However, boys can also lose their opportunity to attend school due to forced recruitment in military groups (Justino, 2010). Indeed, Lai and Thyne (2007) observed that civil war severely affected male enrolment in schools for this precise reason. On 8 September, 2016, local media in Libya reported that, according to a military source in Sirte, IS forces had transferred prisoners from a social security building to the 17 February High School for Engineering Science in the Aljezza Albahria area of Giza (GCPEA, 2018).

According to researchers, the conflict situation widens the gap of educational opportunities between wealthy and poor families as poor households are generally economically vulnerable (Dryden-Peterson, 2009; O'Malley, 2010). In a descriptive analysis of 25 countries, the UIS (2012) found that wealth division contributes towards the inequality of opportunity to education, and that as conflict diminishes, the poor households which are already suffering from damage to property may still find it impossible to educate their children as their focus switches to restoration of their homes. In such circumstances, parents are unable to afford education for their children (Chamarbagwala & Moran, 2011; Shemyakina, 2011).

In the case of Libya, several revolutions have occurred within the country, each of which has influenced the education sector (Khalil & Halis, 2017), which has grown tremendously over the four decades prior to 2011. Free basic education is provided by the Libyan government to all

citizens and secondary education is also compulsory in the country (Khalil & Halis, 2017). Clearly, the advancement of any country depends on the development of education, which in turn relies on political and economic stability (Almansuri & Elmansuri, 2015; Rhema & Miliszewska, 2010). However, the favourable academic situation in Libya changed after the removal of Gaddafi, and the country became engulfed in a civil war (Almansuri & Elmansuri, 2015; Rhema & Miliszewska, 2010). And the protracted crisis since 2011 has damaged vital education infrastructure, and impacted on the education system's delivery, outreach, coverage, retention and quality (OCHA, 2018, p. 29; UNESCO, 2017, p. 1).

All that said, it is true that even in the decades of Gaddafi leadership when education was given much attention, it remained influenced by tradition as Quranic schools and mosques were the main providers of education in the country (Gadour, 2006; Alhmali, 2007; Rhema & Miliszewska, 2010). And as noted by several scholars (see Alkabashi & Wu, 2009; Khalil & Halis, 2017; Fetouri, 2016), despite the initiative of few blended modern schools in Libya, the number of students who have benefited from these is very low.  Alkabashi and Wu (2009) have argued that developing countries such as Libya suffer from a lack of professional development and training, a lack of infrastructure to deliver ICT facilities locally, and a lack of the experts required to maintain high tech facilities. Inexperienced management is another problem, standing as one of the major factors that negatively influence the performance of students and teachers in primary, middle, and secondary schools in Libya. Furthermore, the literature has indicated major deficiencies in Libyan schools such as: improper methods of determining the regulations for schools administrations, poor levels of management expertise and performance, lack of supervision policies for school administration, lack of technology usage in schools, injustice in the selection and assigning of duties among teachers, lower levels of qualified as well as trained teachers, lack of financial and non-financial benefits for teachers, lack of planning to overcome the present situation of teachers, lack of parental support and follow-up for performance improvement, and a higher number of student attrition in Libyan high schools (Loops, 2016; GCPEA, 2018; Gadour, 2006; Khalil & Halis, 2017; Fetouri, 2016). On 9 July, 2017, Libyan armed forces found 10 unidentified decomposed bodies in a National School in the Sabri area of Benghazi, and 15 unidentified bodies in the Fatima al-Zahra Engineering Science School for Girls, after having retaken the area from armed groups that reportedly used the schools to bury opposing fighters (GCPEA, 2018).

It is critically important to determine how these serious challenges to the delivery of secondary school education can be addressed by considering other constraints, e.g., financial limitations, government priorities, security, and infrastructure.

## 2.5 E-LEARNING AND ITS USEFULNESS

E-learning as a term was introduced by Jay Cross in 1998 (Cross, 2004), who then founded the Internet Time Group which soon became popular across the globe. The rapid inclusion of ICT has given rise to a new dimension of learning known as e-learning (Liaw & Huang, 2013), which is regarded by many as an innovation that increases the access to education for various students and teachers by enabling them to access teaching and study material from remote areas. It has also improved the quality of education as a range of different study materials are available online through e-learning portals (Sun et al., 2008). E-learning is also referred to as interactive learning whereby the content of learning is available online via the internet and students are also able to secure feedback online on their learning activities (Almansuri & Elmansuri, 2015; Sun et al., 2008). Khan (2001) observed that e-learning is regarded as anything which involves interactivity with technology in support of education and communication among people for learning and training purposes. Furthermore, he stated that e-learning can be understand as web-based learning (WBL), advanced distribution learning (ADL), internet-based training (IBT), and online learning (OL). Any learning system which is established based on formal teaching but is dispensed with the help of internet and electronic technology is regarded as e-learning (Selim, 2007). While traditional teaching occurs within a formal classroom setting, e-learning is a computer and internet technology which makes it possible for the student to access education from anywhere (Ariana et al., 2016; Laadem, 2017; Zhang et al., 2004). It is totally independent of the concept of classroom attendance.

E-learning is also regarded as a network-based transfer of education and simultaneous delivery of education to different people across the globe (Zhang et al., 2004). It is reported that the earlier phase of e-learning attracted criticism from teachers and researchers for its lack of human element which was argued to be essential for education and training purposes (Lytras & Pouloudi, 2001). However, with innovations in technology and advancements in systems of learning, the concept is now well-understood and accepted (Laadem, 2017; Sun et al., 2008), and the mass production of computers giving people access to internet technology was one of the main reasons behind its popularity. Now there are Tablets, Smartphones, and Laptop devices with internet facilities, meaning that e-learning can be accessed by students from anywhere in the world (Mohseni, 2014; Garcia et al., 2018), an already these electronic devices are replacing the books used in traditional learning environments. Nowadays it is possible to share knowledge and information through the internet and this can be done around the clock globally (Liaw & Huang, 2013; Garcia et al., 2018).

Collins and Halverson (2018) refer to e-learning culture as the just-in-time learning culture, where learners can access their learning materials flexibly and via a range of resources. This is a culture that is now popular as indicated by Rose et al. (2015) who have argued that most learners prefer to complete their education using the e-learning system. The evidence from the literature suggests that e-learning allows for the distribution of learning materials in a more cost-effective manner (Bartley et al., 2004; Simonson, 2011; Moreno & Mayer, 2007; Mouri, et al., 2018; Huang et al., 2012; Hsu & Lin, 2017; Gomoll et al., 2017; Stein et al., 2011). Additionally, the literature confirms that e-learning permits teachers to reach out to all students by using minimum resources whilst maintaining equivalent standards of learning quality (Harasim, 2000; Means et al., 2013; Simonson, 2011). However, whilst the advantages of online education are extensively documented, researchers have failed to indicate how e-learning can be used as a useful educational delivery system in areas undergoing conflict or crisis (Jaggars et al., 2010; Harasim, 2000; Jung et al., 2000; Yamani, 2014). This is an omission since e-learning may expand educational access to inaccessible groups, rural populations, busy jobholders, and female students in countries such as Libya where violent or criminal activities are at peak.

E-learning has revolutionized the way of imparting education to children (Adavbiele, 2017). Unlike traditional teaching methods (i.e., chalk and board), e-learning makes learning easier, simpler, and effective (Ariana et al., 2016; Adavbiele, 2017). Moreover, today's learners want mobile, relevant, self-paced, and a personalized approach towards learning, and this desire is satisfied with the online learning mode (Mohseni, 2014; Garcia et al., 2018). Additionally, students learn at their preferred pace with e-learning methods, and this may improve learning outcomes as it caters for those with slower processing ability. Moreover, in e-learning students can learn through videos, animations, and slides, which may be more motivational and promote more effective learning. The nature of e-learning also enables parental interaction by allowing them to see the material projected at their children for learning purposes, and this may make many parents feel greater comfort with the school curricula. There is evidence that e-learning makes it easier for students to learn essential vocabulary and interact with the contents of the learning (Adavbiele, 2017; Eickelmann, 2018), and that different sections online on study portals such as FAQs, make it easier for learners to derive follow-up information (Anderson, 2008; Eickelmann, 2018). Indeed, it can be understood that there are numerous advantages of e-learning as derived from the literature including: on-demand availability, flexibility of access, timely delivery of the content, personalized instructions, standardization of content, self-pacing, increased convenience, self-accountability, interactivity, and confidence (Rosenberg, &

Foshay, 2002; Anderson, 2008). Other benefits include the consistent delivery of materials, reduction in the cost of education, and increases in tracking for educational institutions (Anderson, 2008; Eickelmann, 2018). Overall, the engagement and achievements of students are maximized with the help of e-learning (Kahu, 2013) and in a conflict situation where students have become uninvolved, this is a critical benefit.

## 2.6 SIMILARITIES AND DISSIMILARITIES BETWEEN E-LEARNING AND OTHER LEARNING CONCEPTS

### 2.6.1 E-learning

E-learning is a learning system that finds its basis from formalised teaching that seeks assistance from electronic resources. As teaching gives importance to learning both inside and outside the class, computers as well as the internet have formed major parts of e-learning (Haythornthwaite & Andrews, 2011). E-learning can be regarded as a network that facilitates the transfer of skills along with knowledge and the delivery of education that can be consumed by recipients in large numbers simultaneously or at different times (Clark & Mayer, 2016). Initially, e-learning was not embraced seriously as the human element was found missing (Clark, & Mayer, 2011), but with its encouragement of electronic technologies to make more use of the educational curriculum, beyond the traditional classroom boundary, it has become attractive. In most cases, it denotes a course, or degree programme provided entirely online (Littlejohn & Pegler, 2007).

Usually e-learning is not characterized by learning via DVD or CD-ROM, using a TV channel or video tape as this mode is referred to as distance learning (Allen, 2007). With e-learning a live service is provided in which electronic facilities enable interactions in real time, supported on other occasions by pre-recorded lectures (Politis, 2008). However, the use of pre-recorded lectures is known to be more effective in higher education than at the secondary school level due to varying degrees of responsibility and sensibility among these younger teenage students (Wright, 2007).

Nonetheless, e-learning uses a comprehensive set of technology-based methods to enhance student learning through the provision of assessment feedback, as well as tutoring and instruction (Table 2-1). Learning that utilizes technology is different from learning through technology (Jaques & Salmon, 2017). The former infers that the technology offers one method out of a multitude of other methods, whereas the latter suggests that the technology provides the solitary channel that enables students to receive instruction and communicate with the

instructor (Littleton & Light, 2012). E-learning has the support of many media as well as technologies. For instance, the World Wide Web provides a communication medium to liberate the learner while also helping learners to to bond with others simultaneously to establish communities of learning (Jaques & Salmon, 2017).

*Table 2-1:Similarities and dissimilarities between types of learning platforms*

| Types of learning | Difference | Learning | Use of digital tools to facilitate learning |
|---|---|---|---|
| Difference between e-Learning and Blended Learning | Blended learning offers a blend of conventional classroom learning as well as virtual learning mediated by a video conferencing tool while e-Learning utilizes internet connection only for the purpose of learning any course (Robertson & Fitzgerald, 2013). The disadvantage of blended learning is that students must attend the physical educational establishment for part of their course (Younie & Leask, 2013). | ✓ | ✓ |
| Difference between e-Learning and Distance Learning | E-Learning along with distance learning have similar features focusing on delivering the same learning facilities to students who are not physically present in the classroom. Students can do their learning wherever they are, at home or in another location (Dekker et al., 2013). | ✓ | ✓ |
| Difference between e-Learning and Classroom Learning | E-Learning provides the students with the option to access education by remaining in their homes thereby avoiding the need to physically attend the educational establishment (Littleton & Light, 2012). | ✓ | ✓ |
| Difference between e-Learning and Digital Learning | Digital learning represents a blend of online, e-Learning, and blended learning, enabling offline digital learning via the use of local conferencing software as well as digital cameras. E-Learning, on the other hand, enables learning using only the internet (Bach et al., 2014). | ✓ | ✓ |
| Difference between e-Learning and Virtual Learning | Virtual learning enables students to have a face-to-face interaction with the teacher via Skype or ez-Talks Cloud Meeting using video conferencing software while with e-Learning, one can use the internet for learning (Donnelly et al., 2012). | ✓ | ✓ |
| Difference between Online Learning and Distance Education | Both online learning and distance education provide students with the opportunity to access learning from home, thereby allowing them to remain in their comfort zone (Jaques & Salmon, 2017). However, online learning can take place within the classroom if desired as part of the curriculum delivery, whereas distance education cannot and there is no meeting with instructors or peers. Additionally, online learning involves the presence of a teacher whereas distance learning requires no such presence (Dicheva et al., 2009). Lastly, online learning adds on teacher guidance as a supplement, whereas distance learning relies on built-in premeditated instructions for guidance (Pilar & Oscar, 2014). | ✓ | ✓ |

### 2.6.2 Online Learning

The main characteristic of online learning is its provision of a learning experience through the use of an internet connection (Clark, 2012). As they participate in the learning experience, students are required to employ specific tools such as ezTalks and Cloud Meeting that have been developed specifically for online delivery of courses (Wankel & Blessinger, 2013). The use of such educational tools that are manageable via the Internet is imperative to underpin the delivery, and as noted by Dekker et al. (2013), this delivery has to be capable of providing access through these tools anywhere and at any time, essentially to provide learning experiences from home (Dekker, et al., 2013). In addition to the obvious advantage of online learning when educational establishments are close because of conflict, online learning also brings benefits in peacetime situations as many individuals wishing to advance their careers need to enrol for professional courses at the same time as they are holding down a full-time job (Donnelly et al., 2012), and may be suffering from work overload prohibiting them from attending an evening class in an educational institution. Professional courses lend themselves well to online delivery, allowing busy people to study when their lives provide them with space to do that, and to work towards promotion to higher ranks as they accumulate more qualifications. Online courses are valuable in these circumstances since they save the adult learner time, money, and energy (Bach et al., 2014).

A distinct feature of online learning lies in the autonomy of the learner in being able to research from among the courses available, and then consider how to fit the home study into the existing lifestyle. In these circumstances, an individual can still develop via an online course despite a hectic schedule (Hubbard, 2013). However, online delivery may not permit any interaction with the course staff and this can hamper student progress when there is a need for an answer to a question (Littleton & Light, 2012). To overcome this particular problem, alternative platforms such as e-mails, online forums and chatrooms are offered where students can find live resolutions to their queries (Gibson et al., 2007). That said, these platforms are not convenient for schoolchildren which is why e-learning is not a preferable method for them children (Jaques & Salmon, 2017), because it is widely believed that live interaction with a teacher provides the best opportunity to learn as it is collaborative in nature and facilitates two-way communication (Clark & Mayer, 2011). For schoolchildren, synchronized online courses are more beneficial.

It is true that students at all levels can look for more knowledge via the internet using popular search engines such as Google and Bing, but to do this on a regular/preferred basis may discourage them, and children especially from reading physical books. Searching on the internet carried the distinct disadvantage there there is a multitude of information about all subjects and

issues, and this can present information overload for the student (Dicheva et al., 2009), resulting in adverse performance.

### 2.6.3 Digital Learning

Digital learning provides a blend of learning delivered via online, e-learning and blended modes. It can be executed offline by the installation of software enabling local conferencing and using digital cameras (Pilar & Oscar, 2014) and therefore does not rely on an internet facility. However, it does embrace online learning which further includes blended and e-learning (Buckingham, 2013). Digital learning enables students and teachers to develop mutual communication online (Whitton & Moseley, 2012). The result is that many schools are converging on e-learning as part of their digital learning drive, to supplement the learning achieved within classrooms (King & Alperstein, 2015). For instance, an online setting can be made for homework and quizzes for other classes. This novel type of learning was found to meet the needs of the majority of learners whether at school-age or in adulthood (Aberšek et al., 2014). However, Palacios & Evans (2013) indicate that digital learning is a complex learning platform which makes it unsuitable for school-level children. So there are differences in opinion regarding the degree of sophistication which schoolchildren can cope with.

### 2.6.4 Distance Learning

This form of learning is now taken as a substitute for online learning (Hughes, 2016), and as a form of learning it has become popular in universities with those who satisfy the entry criteria for a course but who may not be able to physically be there. For instance, a student residing in America may study on a course offered by a European university but be able to do that without re-locating (Moller & Huett, 2012).

### 2.6.5 Blended Learning

Blended learning is a form of virtual learning built on the blend of traditional face-to-face learning from the instructions of a teacher and instructions given online from a remote teacher using a software tool for the purpose of video conferencing (Estelami, 2013; Watson, 2008). Hence, this type of learning involves instructions that originate from two sources (Salmon, 2013). When learning from one of these sources, students pursue a fixed learning schedule requiring them to attend certain classes at an educational establishment, whereas when learning from the other they engage with the remote teacher using a given platform of virtual conferencing (Lehman et al., 2010). Blended learning thus presents a model involving learning at some distance from the educational institution, and learning from within that institution in

the actual classroom (Goodfellow & Lea, 2017), and the overall schedule is fixed meaning that there is no flexibility to do the distance part of the learning in one's own time. However, as noted by Garrison (2017) in such models, most of the learning, coursework and assessment is in fact done online.

The rationale for blended learning programmes rest on observations about how learning takes place which as observed by Zhang et al. (2004) has traditional depended on recitation and memorization of facts. This is a constructivist approach that develops three essential skills among learners, these being: problem solving, decision making and critical thinking (Guri-Rosenblit, 2005; Thorne, 2003), and it is an approach that is inherently classroom-oriented in which there is interaction between the learner and the instructor (Zhang et al., 2004). In the distance part of blended learning, the learner interacts with the instructor in the same way but via the internet (Ariana et al., 2016; Laadem, 2017), and in this situation both teacher and learner do not have to be present at the same time, as the tutor may have pre-recorded a teaching session.

The tools required for the distance element of blended learning are tested during the class proceedings (Robertson & Fitzgerald, 2013) to ensure their viability since students must be capable of using them for the blend of classroom and distance learning to be effective (Younie & Leask, 2013).

### 2.6.6 Classroom Learning

Classroom learning in the traditional notion requires both teacher and learner to be in the classroom together where they can interact and share physical resources. It is possible for teachers to record a lesson given in this traditional way and upload the recording onto a learning portal so that any one of the learners can access it at a later time to consolidate the work done in that particular class (Anderson, 2008). In fact, all of the types of learning described in the preceding sections distance learning, online learning, digital learning, blended learning, and virtual learning can be effectively combined with classroom learning (Hameed et al., 2008; Bates, 2005; Watson, 2008).

### 2.6.7 Virtual Learning

Virtual learning as a term relates to all the types of learning discussed in the foregoing sections that are not accessed in the physical setting of the classroom (Kosturko et al., 2015). As a concept, it brings equal chances for students and teachers to communicate with each other

wherever they are, provided there is an internet facility, and the appropriate software. In all types of virtual learning, students are able to utilize paper-based offline materials as a response to teachers using only the internet connection (Cook et al., 2016), and can communicate their responses by sending screenshots to their teachers online (Major, 2015). This represents learning where students can have online interactions with their teachers without the requirement to visit a classroom physically (Cremin, 2015), and hence they may be elsewhere in the same institution (e.g., in the library) or at home, or in a different country.

It is important to note that virtual learning (e-learning) is effective in transferring both skills and knowledge through its capitalization upon Web and computer-oriented learning, virtual classrooms and digital collaboration (Kearns, 2016), and that all the various electronic applications embodied within it are designed to initiate learning (Hills & Howard. 2017). Delivery of content is made possible using the internet, satellite TV, intranet/extranet, CD-ROM and audio or video tape (Allen et al., 2016), all allowing the learning achieved to be comparatively more extensive that might be possible in a classroom (Facer, 2011). In the case of online learning, however, the internet is the major element that is employed.

Virtual learning relies on the employment of online tools for the purpose of learning (Roffe, 2004) which can occur via the provision of lectures, assignments, and tests (Salmon, 2002), all elements within a virtual learning environment (Palloff & Pratt, 2007). Moreover, when students connect with their teachers online, there is scope for them to improve their writing skills (Jones et al., 2014), thereby enhancing their overall development of their communication ability. Distance learning and e-learning are often used interchangeably as both learning opportunities do not require classroom attendance (Guri-Rosenblit, 2005).

## 2.6.8 Needs in the Traditional Classroom and in Virtual Learning

As already discussed, the needs in the traditional classroom centre on bricks and mortar, the presence of a teacher, furniture and learning resources in the form of books, charts etc., which learners share. In virtual learning, the needs to underpin delivery rely extensively on technology. Where a blended learning model is used, an online portal is required for video conferencing, but where the e-learning mode is employed, the entire learning process may be online, requiring an internet connection (Watson, 2008). To determine which method is the most suitable, it is important to compare the advantages and disadvantages of each (Khan, 2001). Digital learning comprises the combination of online learning, blended learning, and e-learning (Anderson, 2008; Thorne, 2003). Some researchers show a preference for offline digital learning which uses software that allows local conferencing and digital cameras.

However, others note that e-learning which is entirely internet-based does not require a camera (Guri-Rosenblit, 2005; Thorne, 2003). In both, videos are possible.

In a conventional classroom setting, it is communication skills that are required in addition to the needs already mentioned, but in an online environment, as noted by King and Alperstein (2015), teachers and learners need IT skills and the confidence to participate (King & Alperstein, 2015). Learners must be able to understand how to navigate, evaluate and create information by utilizing diverse technologies (Bowen & Lack, 2013). They need to be able to operate software relating to basic word and numerical processing (Jung & Gunawardena, 2014) but are not expected to understand programming languages; rather they have to become acclimatized to emerging applications and trends of information management (Martín-Monje & Bárcena, 2014), and to facilitate this acclimatization, online instructors need to ensure they deliver guidance in how to use the tools of an evolving technology through tutorials (Wheeler & Gerver, 2015). Fortunately, there are many software options from which an instructor can make a selection to help students produce their assignments (Reinders et al., 2013).

The instructor's role is also different in as much as in a conventional classroom setting, s/he must function as the overriding authority, who supersedes the learning process entirely (Connell et al., 2015). However, in an e-learning platform classroom setting, the instructor shifts this authority to a mentor who provides guidance on each step (Wellington & Ireson, 2018), and this reduction in supervision enhances student autonomy, and paves the way for greater individualized learning which is the epitome of online learning (Boettcher & Conrad, 2016), and possibly the biggest difference between e-learning and conventional learning (Deane & Guasch, 2015). Essentially, e-learning encourages a greater learner orientation (Clark & Mayer, 2016) and therefore holds more potential in a situation where the learner is separated from other learners and has to rely more on him/self for validation than would be the case in a physical classroom. It would seem therefore, that e-learning has much to offer as an alternative to physical schools in the recovery and post-conflict period of Libya.

### 2.6.9 E-education or E-learning?

In order to address the confusion surrounding the terms e-education and e-learning, a definition of both is given here. Clark and Mayer (2016) note that education is referred to as acquiring knowledge through a systematically progressed instruction procedure. It is acknowledged as an indispensable ingredient for the advancement of society. Hence, it is obligatory in most countries at least up to a certain age (Hoffman, 2011; 2010). Indeed, education has become a fundamental human right, and is delivered in a formal and structured environment where

students meet with a properly trained and certified teacher, and with other students (Jensen, 2015). This brings not only aims and objectives from an academic perspective, but also from a social viewpoint. The term education usually refers to that provided at primary, secondary and tertiary levels (Bergom, 2015), and embodies all the formal and informal activities in school. It is, therefore, a broad concept extending outside of the classroom situation into the recreational areas of a school, and as can be understood, the informal activities cannot be delivered through electronic platforms, and that accounts for the outcome of electronic platforms to be recognized as being limited to the term learning (Hewett et al., 2015). An educator teaches students under a fixed curriculum in all of the educational formal settings (Pullman & Baotong, 2016).

Although students do not always demonstrate immense interest, they are nonetheless required to learn the content of their lessons in order to pass their examinations, thereby giving their learning an extrinsic value for them. And therefore, the measurement of what they achieve cannot be measured purely according to its intrinsic worth which is the hallmark of education. Rather, it is measurable by demonstrations of the acquisition of knowledge and skills, the modification of behaviours and the improvement of existing values (Wellingon & Ireson, 2018). Figure 2-1 depicts the differences between learning and education).

Learning improves through schooling, formatted lessons, personal development, training and practice. It moves intentionally and unintentionally (Robinson, 2016), not following a confined parthway or applying to a certain age or place within an individual's lifespan. Rather, it occurs during the course of our entire lives. Listening to and embracing the teaching imparted in an educational institution does not necessarily signal learning is taking place; it is comprehending and practising that provides that evidence (Wellington & Ireson, 2018). Here it is worthwhile noting that not only humans but plants, animals and even machines have the capability to learn. An individual learns out of curiosity deriving from his/her intrinsic motivation (Deane & Guasch, 2015). E-learning reflects learning by the use of computer skills and emerging technology (Clark & Mayer, 2016), and has gained maturity, providing two-way communications between teachers and students.

Consequently, the term e-learning is used in this research study, and for that purpose is defined as: computer and internet technology-based education which makes it possible for students to access education from anywhere using flexible time schedules and comparatively lower costs than class-based education (Ariana et al., 2016; Laadem, 2017; Zhang et al., 2004). This definition is totally aligned with the aim and objectives of the study because the school infrastructure has been destroyed in Libya's major cities, and many students and teachers are

now living in refugee camps or have moved to safer cities and are unable to gather at the previous physical location due to the seven-year old violent conflict. The rebuilding of Libya's infrastructure is a long-term project and as identified by international organizations, children's schooling has suffered and will continue to do so until the infrastructure is properly repaired (Unicef, 2018; Unhcr, 2018; Fetouri 2016). The definition of e-learning adopted for the study is intended to reflect the need for safe access to education via internet technologies by Libya's schoolchildren from anywhere, thereby allowing them to remain safe and secure.

### 2.6.9 E-learning: Advantages, Disadvantages, and Challenges for Secondary Schooling

Clearly, there are many advantages to e-learning but equally there are disadvantages, and even if these are outweighed there remain challenges to its implementation in the secondary school context.

In terms of the benefits it brings, Kenney et al. (2005) observed that e-learning is helpful in cutting the costs associated with the provision of education, and with its administration since less human resources are required for this. Additionally, e-learning is student-centred from the viewpoint that any student can access it from their current location, and often at a time convenient to him/her (Jando et al., 2017). This means that learning could be undertaking during the evening or weekends, thereby reaching out to a wider population and including people who are otherwise engaged during the traditional working day (Garcia et al. 2018). And another important advantage is that unlike classroom teaching, e-learning offers the opportunity for individuals to access the same content multiple times (Zhang et al., 2004), ensuring synchronization between the learner and the lesson (Guri-Rosenblit, 2005; Thorne, 2003). E-learning also makes it easier for the learner to access updated content, and the instructor to make such updates (Palloff & Pratt, 2007), and it has the benefit of being a quicker way of imparting education because the learner does not have to adhere to strict timings as happens in a traditional classroom setting (Bates, 2005). E-Learning is also beneficial in communicating and creating new training concepts, policies and ideas (Bates, 2005; Jando et al., 2017); and as observed by Garcia et al. (2018), it ensures that all learners irrespective of location have the same access to education. Learning can be delivered in a more cost-effective way than in the traditional environment, and it is not restricted to the 'learner' as instructors can also receive training and updating via the same medium, being able to access the learning material and lectures repeatedly (Broadbent, 2002). Skills, both mental and physical can be practised under self-imposed deadlines/conditions with e-learning, and as noted by Bates (2005), it also plays a

valuable role in improving the tests, scores on certifications, and other evaluation strategies as the opportunity for repeat is in-built in the system. Moreover, it is also helpful for those students who are managing both studies and work (Anderson, 2008; Palloff & Pratt, 2007; Watson, 2008), and whose only opportunity for self-development lies outside the normal working/education day because these people can engage with the learning material at their convenience, meaning no interference with their work schedules, and the ability to keep their studies private from their employer if need be. Furthermore, since e-learning represents paperless learning, it improves the environment (Broadbent, 2002; Bates, 2005). Indeed, it has been found that e-learning is environmentally friendly as it generates 85% less carbon dioxide and consumes 90% less energy in comparison with the traditional classroom settings, therefore being eco-friendly (Hameed et al., 2008). Different governments are supporting e-learning because of lifelong learning, economic competition, accessibility, social equality, cost efficiency, and geographical reasons (Bates, 2005; Jando et al. 2017; Palloff & Pratt, 2007; Watson, 2008).

Watson (2008) notes that e-learning has made it possible to provide education on a mass scale in virtual classes, thus dispensing with the need to provide traditional classrooms in different locations. And hence, the considerable amount of funding required to finance the bricks-and-mortar schools is substantially reduced with an e-learning system (Rana & Lal, 2014). At the same time, much educational growth can be achieved by combining the blended and virtual learning methodologies (Hameed et al., 2008; Watson, 2008), and universities are already introducing online learning features and facilities in the provision of education (Kanwal & Rehman, 2014; Tselios, Daskalakis & Papadopoulou, 2011). The successful implementation of e-learning at university level should also encourage high schools to gradually introduce e-learning in their curriculum (Adavbiele, 2017; Kanwal & Rehman, 2014; Tselios, Daskalakis & Papadopoulou, 2011), as a means of preparation and familiarisation of secondary school pupils for the world of higher education.

As mentioned, however, there are some disadvantages to e-learning but they are few, when separated out from the challenges. Specifically, the disadvantages can be identified as the inability of e-learning to properly address the lack of social experience. Cavanaugh (2001) observe that parents are concerned regarding the scial development of their schoolchildren. In an online virtual environment, students learning in a socially-isolated setting limiting their opportunity to interact freely with other learners and teachers. The outcome of this arrangement may be that the sense of isolation grows during the e-learning process (Johnston et al. 2005).

Aycock et al. (2002) observed the need for new ways of interaction to be embodied in e-learning such that students can be engaged in online conversation to stimulate social conversation among learners and can be asked to participate in online live meetings, or encouraged to provide video tutorials on the lessons they have followed (Patronis, 2005; Johnston et al. 2005; Vaughan, 2007). Such adjustments would have the effect of motivating learners towards e-learning. Similarly, various scholars have suggested combining the e-learning medium with the classroom learning method as a means of preserving the social development of students (Brown, 2001; Appana, 2008; Cavanaugh, 2001; Vaughan, 2007).

In addition to the advantages and disadvantages just discussed, there is also the matter of the many challenges to the implementation of e-learning and here these obstacles will be identified. One such challenge is the lack of precision in analysing the educational needs and matching those needs with the features of the electronic system which can cause unpredictable flow in the educational system (Rana & Lal, 2014; Watson, 2008). This situation can become even more problematic if the school staff are inexperienced in the concept and pactice of e-learning, and that is a common situation.

Another major challenge is identified by Rhema and Miliszewska (2010) who refer to the various technological challenges that have engulfed Libya because the country has no adequate technological infrastructure. Indeed, one of the main concerns highlighted by researchers is the digital divide evident in Libya, whereby part of the population has no access whatever to the internet and lacks basic IT skills. This makes it difficult to introduce e-learning on a compulsory basis, and it is a problem well-recognized by governments across the globe that are focusing on the task of providing equitable access to internet. Consequently, while there are computer laboratories in Libyan universities, there is no proper network to allow these computers to act as the hardware for e-learning. Essentially, in these cases the internet facility is not widely available because of the disruption caused to it by the general lack of technological infrastructure in the country. So even with a comprehensive e-learning system in place, it is likely that students in some areas will be unable to access it, thus producing more inequalities. Furthermore, there is a limited collection of educational software packages in Libya and the technical support for those packages that are available is not easily found. This scarcity of software for educational purposes is further complicated by a lack of leadership, lack of e-learning culture, and lack of an e-learning strategy in the country (Almansuri & Elmansuri, 2015). Hence, despite the success of e-learning in other countries, the Libyan education sector is not guaranteed to follow suit.

In fact, Kearsley (2002) pointed out that e-learning is not suitable for everyone, and for many countries. Common problems are highlighted by various studies regarding the new skills needed for enabling teachers and learners to utilize and benefit from, models of e-learning (Anderson & Gronlund, 2009; Rozgiene et al., 2008; Picciano & Seaman, 2007). And other scholars have pointed out that different skills as well as experience are needed to achieve the true potential of e-learning. The skills in using platforms such as blogs, wikis, virtual meetings, discussion forums, and video conferences are essential for successfully implementing the e-learning method (Hadad, 2007; Appana, 2008), and these skills are not in evidence in Libya, thereby presenting an important challenge. Anderson and Gronlund (2009) and Al Araibi et al. (2016) also identify the readiness of instructors and learners, together with technical challenges and organizational problems as barriers to the implementation of e-learning in different countries. Likewise, in their study of the factors influencing the recognition and acceptability of e-learning among higher education instructors in Sri Lanka, Thowfeek and Hussein (2008) reported readiness among instructors and learners, awareness, confidence, training, recognition of need for e-learning, institutional support, infrastructure, incentives, motivation and the system of e-learning itself. On the same theme, So and Swatman (2006) evaluated the readiness of primary and secondary school teachers in accepting e-learning technology as a vehicle for delivering education in Hong Kong finding that male and female teachers from both primary and secondary schools did not feel ready to operate confidently in this way. And Shraim and Khlaif (2010) found in their quantitative study in Palestine that neither teachers nor students felt themselves fully ready to start education through the e-learning method because of the digital divide, lack of e-learning skills, limited reach of network, lack of autonomy, poor infrastructure, language barriers and workload pressure. Adavbiele (2017) observed that the lack of facilities was the main challenge to e-learning in Nigerian schools. The percentage among Nigerian teachers who are technologically literate was reported to be lower in comparison with other developing countries. In order to successfully implement e-learning, it is imperative that the readiness of technology is assessed by the education provider so that the barriers to the introduction of e-learning can be reduced (Al-Araibi et al. 2016). In fact, researchers have pointed out that the more widespread the internet technology in a country, the more likely it is that e-learning would be prevalent there (Rozgiene et al. 2008; Anderson & Gronlund, 2009; Picciano & Seaman, 2007).

Previous studies have highlighted that at times of violent conflict, the delivery of programmes must be designed in a way that can reduce the negative impact in uncertain conditions (e.g. lack of food, no transportation, lack of uniform, limited teachers and study material) (Serneels &

Verpoorten, 2015; Cerra & Saxena, 2008; Bove et al., 2016; Nam & Schumacher, 2014; Ajdukovic et al., 2013; O'Reilly, 2014) and enhance the level of positive development (e.g. quality education, safe environment, requires limited resources, and flexible hours) (Davies 2003; King, 2017; Haider, 2014; Khan, 2016). In Libya, some private schools are still trying to provide traditional education despite the conflict by charging a comparatively high price for transportation and tuition fees (Fetouri, 2016), while the areas of Benghazi, Tripoli and Al-Margab have the highest proportion of high schools reporting barriers to accessing education (19.9%, 13.6% and 13.5% of HHs respectively) (REACH, 2017).

Tripoli's state schools, however, are still functioning but are overcrowded because this area is safer than other areas and has attracted migration from elsewhere, thereby jeopardising the education of local children (REACH, 2017a, p. 49). It is known that victims of violent conflict face difficulties in accessing water, sanitation, food and health facilities and consequently cannot pay for their children's education (Unicef, 2018; Unhcr, 2018; O'Reilly, 2014). Hence, it is important to formulate and design an educational system to address these adverse conditions (Collelldemont Pujadas, 2015; Paksuniemi, 2016; Khan & Hyndman, 2015; Bair, 2011; Haer & Böhmelt, 2017).

Due to the major factors affecting the education of secondary school children in Libya, e-learning is proposed as the solution for the post-conflict and recovery period in the country as shown in Figure 2-1.
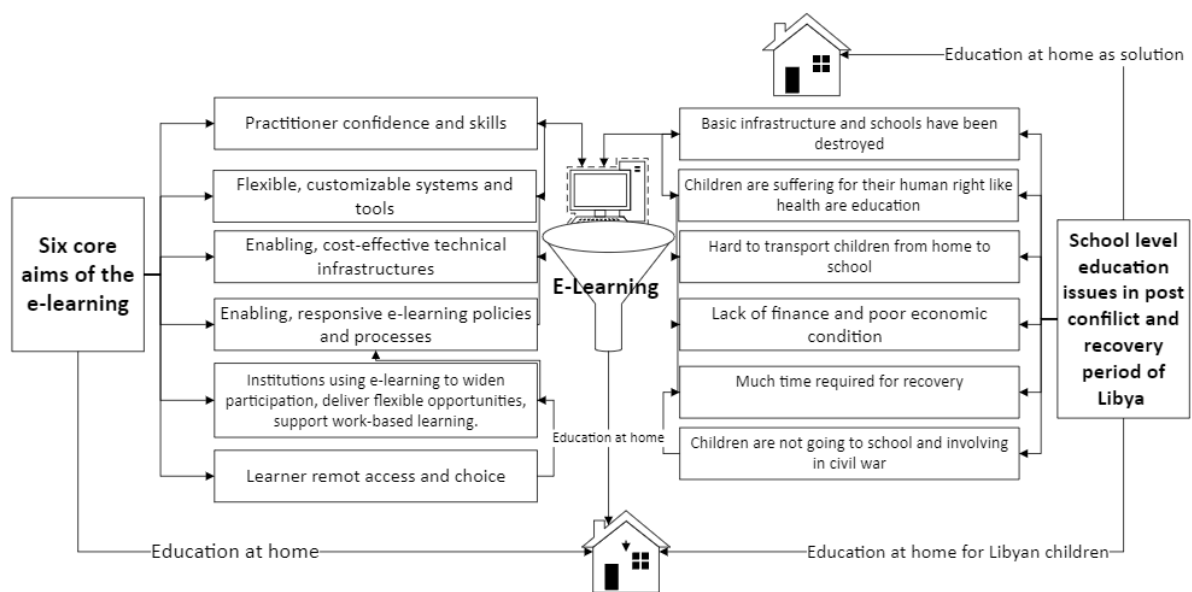


*Figure 2-1: E-learning as a solution for secondary schools of Libya*

## 2.7  E-LEARNING STAKEHOLDERS

National governments have been impressed by indications in the literature of the many stakeholders who would theoretically benefit from the implementation of e-learning (Alaugab, 2007; Al-Shehri, 2010; Mupinga, 2005). Advantages such as reduced overall costs and the fast implementation of e-learning when compared with traditional education are also attractive to governments (Moreno & Mayer, 2007; Mouri et al., 2018; Huang et al., 2012). Furthermore, Mouri, et al., (2018) suggested that people who live in remote areas or females in countries with gender restrictions, single parents and people with a long history of illnesses or injury can fulfil their educational needs by using e-learning systems (Kong et al., 2014; Mesfin et al., 2018; Macfadyen & Dawson, 2012; Bell & Federman, 2013; Maxwell & Mucklow, 2012; Li et al., 2011).  Additionally, people can easily develop their technical and professional skills which is a major advantage for those who are surviving in unsafe and war-torn countries (Anderson et al., 2008; Garrison, 2004; Deepwell, 2007; Khribi et al., 2009; Rohleder, 2008). Therefore, considering its value to the many stakeholders in the educational process, e-learning is believed to be the most suitable for Libya during the post-conflict recovery period.  Despite the interest and potential benefits of an e-learning system, there are challenges in formulation and implementation which vary from culture to culture, region to region, developed country to developing country, language to language, and individuals to individuals (Al-Azawei et al., 2016; Milton 2013; Rajab, 2018).

According to Tamtam (2011), most educational programmes are designed and presented in Arabic because that is the official language of the Libyan state. However, this provides a language barrier to professionals from UNICEF and other international organizations who are unable to communicate and deliver training to teachers and students using their local language (Hweissa & Su, 2018; Elaiess, 2017; El Obeidy, 2016; Busnaina & Woodall, 2015). Moreover, the centralized power structure of the country combines with the language barrier to hinder the implementation of e-learning and the provision of the basic human right to education for Libyan children. On the other hand, it is a fact that the costs associated with e-learning facilities are less than those required to operate the traditional educational system (Ananga & Biney, 2018; Mupinga, 2005; Rajab, 2018). There are different stakeholders in a country who may influence the adoption and implementation of an e-learning system. According to previous literature on ICT in schools, these stakeholders can be teachers or/and headteachers, policy-makers in the education department, students, and parents (Ahmed, 2015; Adavbiele, 2017; Adeyemi & Olaleye 2010; Alhmali, 2007; Alkabashi & Wu, 2009). Therefore, it is crucial to analyse their roles and contribution in the successful implementation of the e-learning system. In this respect,

Alhmali (2007) has conducted various surveys to gather data regarding the perception, attitude, and belief of middle and high school students in the education system in Libya. He also conducted interviews with teachers to compare the findings with the results obtained from the student survey.

Alkabashi and Wu (2009) have also undertaken research with head teachers and teachers in basic schools in Libya finding that the lack of training, lower levels of technological infrastructure, and lower levels of the English language are the main barriers in the implementation of ICT in such schools. They also highlighted that the Libyan government has taken the decision to invest money in ICT in order to improve the knowledge and skills of teachers and students in basic schools. Emotional and behavioural difficulties are also known to influence performance in Libyan schools (Gadour, 2006), and it is known that violent conflict motivates such difficulties. Andersson (2008) also conducted a study in a country that has been much impacted upon due to internal violent conflicts, concluding an important role for e-learning. In that study, data was collected from staff and students of educational institutions to indicate the challenges in the implementation of an e-learning system, and suggestions to improve e-learning effectiveness were offered. Reporting on Libya, Hamdy (2007) noted the introduction of mobile classrooms with the purpose of delivering education in those areas which are harder to reach but these initiatives are not prevalent. Akresh and De-Walque (2008) gathered data from school children to examine how their educational achievements are influenced by civil conflict. Findings revealed the need for students to be given another chance to allow them to complete their school education.

Panter-Brick et al. (2009) conducted a survey with a sample of teachers and students in a country that has been in a war situation for many decades. Their findings reveal that the mental health and academic performance of school students is negatively affected due to extreme violence. In Nigeria, Adeyemi and Olaleye (2010) gathered random data from headteachers and teachers of randomly-selected secondary schools finding that ineffective management, lack of capital, and irregular electricity are the major barriers to ICT implementation in secondary schools there. And more recently, also in Nigeria, Adavbiele (2017) collected data from 300 randomly-selected students to determine the challenges of e-learning programmes in the country's secondary schools. Lack of e-learning facilities, irregular electricity, and lack of teaching skills in computer usage were found to be the major barriers in the successful implementation of the e-learning system. Exploring the outcomes of introducing ICT in the secondary schools of an Arab country, Ahmed (2015) questioned headteachers, reporting

improvements in both teacher and student performance after the successful implementation of ICT in those schools.

The existing literature has indicated that previous studies on e-learning have mainly focused on gathering data from the headteachers of primary and secondary schools (Alkabashi & Wu 2009; Adeyemi & Olaleye, 2010; Ahmed, 2015). A principal reason for this choice has been the need to analyse the success or otherwise of their experiences, planning, monitoring, and implementation of ICT within school settings. Consequently, the present study will also collect data from headteachers of secondary schools in conflict areas to provide a clear picture regarding the steps to be taken for the successful implementation of the e-learning system into the school setting of Libya. Some studies have identified that the Libyan government invested money to foster ICT in schools prior to the extreme violent conflict (Alkabashi & Wu 2009; Hamdy 2007), but these studies also indicated that the investments and plans to build an online educational infrastructure were low and only involved a few cities. The present study will also collect data from the educational officers in conflict areas to determine what actions the government has taken to restart education in schools and what further actions are required to improve the educational needs of those students who are negatively influenced by the violent conflict in Libya. School students are excluded from this study because most of them are under 18 years old and may not be able to provide significant feedback regarding the proposed aim and objectives of the study. Nevertheless, the student role is important to determine levels of motivation in future studies.

## 2.8 SUMMARY

This chapter has provided broad coverage of the literature appropriate to the study, considering conflict theories as a conceptual framework, the impact of conflict with a focus on education, and e-learning as a concept that has something to offer nations whose educational provision has been severely damaged by conflict. It is understood from the chapter that conflict has a direct impact on the economic, social and political circumstance of a country inflicting so much destruction that it can be a generation (20-25 years) before its infrastructure is repaired. Additionally, the chapter emphasises the deeply-rooted nature of conflict and how the local context is important in this respect, illustrating that every conflict is different from another. The way in which the research progresses is shown in Figure 2-2.

| Research Introduction | **Literature focus on following** |
|---|---|
| | Conflict theories offer explanation regarding how violent conflict takes place in a society, how it begins, and its detrimental consequences for public and government. |
| **Conflict Impact on Education** | Conflict theories have highlighted how violent conflict can raise unequal distribution of power and resources, human rights abuse, historical resistance, and socio-economic marginalization in any society. |
| Literature Review | Various conflict theories that have been discussed in literature highlighted how violent conflict can damage infrastructure, education, health, economic development, employment, or basic human rights of residents. |
| Case Study | **Rationale** |
| | Outcomes |
| Research Methodology | There is need to answer the following questions to solve the school education problem in Libya. |
| | What is the current situation of Libyan conflict in context of school education? |
| Analysis and Results | What are solutions of the school education to offer education facilities for the school children in Libya? |
| Discussion | How and why new learning system required in Libya? |
| Conclusion | |

*Figure 2-2: Thesis progress*

# CHAPTER 3 EDUCATION IN CONFLICT: STATE OF THE ART REVIEW

This section presents a review of the literature relating to education in conflict. It highlights the impact of the violent conflict in Libya on the educational infrastructure of secondary schools. Furthermore, it examines whether any technological initiatives have been taken to address the educational needs of secondary school students.

## 3.1 CHALLENGES TO SCHOOLING DURING THE LIBYAN CONFLICT PERIOD

The Libyan conflict has brought many challenges to schooling as mentioned previously, and consequently some researchers have examined these challenges to determine whether e-learning might be implemented in schools and what factors must be present for its successful implementation in schools. In this respect, a consideration of the national culture is required since Libya has a hierarchal society that has many diverse cultural features which are lived with such as inequalities, power distance, centralization, uncertainty avoidance, and heavy more government control (Obeidi & Obeidi, 2013; Vandewalle, 2018). Additionally, Libya has been in crisis since 2011 when violent conflict among armed groups increased across the country (Vandewalle, 2018).

Libya has a long history of internal and external conflicts that have negatively influenced educational activities and the working environment in schools, colleges, and universities. Currently, however, the educational issues and needs of secondary school students is an important issue since without qualified secondary school students, there will be no university cohorts. One factor which has negatively influenced the process of schooling in Libya is the migration from one city (region) to another by families and teachers who feel threatened by insurgence and violent conflict (Vandewalle, 2018). Another is that kidnapping is common, Fetouri (2017) and parents are expected to pay a ransom. Indeed, the OHCHR reported that at the end of 2015 an 11-year-old boy was abducted while on his way to school. His kidnappers demanded a ransom, and the boy was found dead on 24 February, 2016, after 68 days, bearing marks of torture. Therefore, teachers and parents are afraid of sending their children out of their homes and into school, meaning that these acts of extortion have also resulted in very low school attendance (Fetouri, 2017).

Such low attendance due to the high violence and security risks, together with a lack of teachers has negatively influenced the process of schooling. Furthermore, it is also reported that car bombs, aerial bombings, grenades, and other explosives have destroyed hundreds of schools

and universities in Libya (GCPEA, 2018). And the armed groups responsible for the kidnapping of children as just mentioned, have also included teachers, professors, and students in college and university, in order to fund their activities.

Anxiety about kidnapping and rape, also fuel the existing situation of gender inequality in Libyan society (O'Malley, 2010). For example, girls could be the first to have to forego their attendance at school due to fear of sexual assault and kidnapping, and boys could lose attendance due to forced recruitment in military groups (Justino, 2010). On 3 December, 2015, armed men reportedly kidnapped a girl and her two brothers while they were on their way to school with their mother, according to a media report (Fetouri, 2017). A few studies have indicated that violent conflict also negatively influences the psychological conditions of students due to which performance declines as Libyan schoolchildren find themselves under stress, and subsequently fail to attend school (Raji, 2017; Fetouri, 2016).

Researchers have also stated that violent conflict may disrupt the provision of education as school buildings are damaged by violent groups in Libya (Fetouri 2016; Vandewalle, 2018); and it is not only buildings that have been demolished; many people have lost their lives, many people have been displaced, and the capital and public infrastructure in southern cities of Libya have been lost (Vandewalle, 2018; Unhcr, 2018; Fetouri, 2016). Gunmen allegedly opened fire on Othman Abdeljalil, the Education Minister of the Libyan GNA, on 3 July, 2017, when he was monitoring final examinations in Sabha city. He was unharmed in the attack but other have not been so fortunate, for example, the UN Support Mission in Libya (UNSMIL) reported that a 7-year-old boy was killed, and an 11-year-old girl was injured on 10 November, 2017, when they were caught in crossfire as they were leaving school in Salmani, Benghazi. It is seen that lack of infrastructure (i.e., destruction of roads, internet infrastructure, electricity, transportation facilities or school buses, and other facilitating technology), non-availability of teachers, lack of financial resources, high security risks, and fear in parents are major barriers in delaying the schooling of children in Libya (Unicef, 2018; Unhcr, 2018; Fetouri, 2016).  Given the observation by Akbulut-Yuksel (2014) that countries facing violent conflicts and war situations may require a period of 20 to 25 years for full recovery, it is important to address the challenges being encountered by the education sector to enable future economic development of the country.

According to Fetouri (2016), 250 schools in a single city of Libya are completely out of use and the remaining few public schools have overcrowded classes and some are being used as shelter homes for those who have lost everything in violent conflicts. Furthermore, Fetouri (2016)

reports that teachers have been protesting for many years about low salary levels which have also negatively impacted upon the timings of school classes. According to OCHA (2017), 558 schools are partially or fully affected due to violent conflict and 279,000 students are not attending schools in the cities of Benghazi and Tripoli alone. Furthermore, this report also revealed that approximately 40% of schools in Libya were damaged during the violent conflict between the years 2011 and 2015. An unequal situation has also developed in respect of private schools that are receiving 300% more income than public schools because the latter are in a state of destruction of disrepair and not considered safe even if they are supposed to be open. Wealthy parents are prepared to pay to keep their children educated in the relatively safe environments of private schools, which according to a report in 2012) accounted for the education of 10.5% of students (Libya MoE, 2012, p. 10). This means that most students are dependent on public schools as they are unable to afford the high costs of private schools in Libya. It is reported that about 2,000 schools have been damaged in the period of 2011 to 2013, additionally, within the month of November 2016 approximately 477 schools were found to be damaged while 30 schools were destroyed in Tripoli and Benghazi (GCPEA, 2018).

According to UNICEF (2016), 64 schools were damaged and turned into IDP temporary shelters in the cities of Sirte, Tarhuna, and Bani Walid. These 64 schools represent almost 17% of the schools in the three cities. According to Unicef (2016-18), children require education in public schools because they are unable to afford necessities (food, medication, water) due to the control exercised by armed groups over the public infrastructure, particularly in the southern cities. The existing literature has predicted that well-formulated and effective e-learning educational programmes may allow educational institutions to offer cheaper tuition fees and high-quality education specifically in those areas where there are many infrastructure challenges due to natural disasters and war (Anderson, 2008; Broadbent, 2002; Eickelmann, 2018; Rajab, 2018). According to Fetouri (2016), the provincial governments of western cities have resources for printing and other useful resources, but they are not ready to share those with southern cities due to the poor relationships between the regions and the of co-ordination. And although the Libyan government can try to provide these educational materials online, the unreliable electricity supply, lack of investment in ICT, and poor administration remain major barriers (Alkabashi & Wu, 2009; Fetouri, 2016).

Akbulut-Yuksel (2014) has argued that education can be continued through the use of e-learning methods in the aftermath of the conflict. This would seem to be an aim to pursue since although mobile classrooms were initially introduced to deliver education in areas which are harder to reach, such initiatives were limited (Hamdy, 2007). Moreover, despite the innovation

of modern schools, there are very low numbers of students who have been able to benefit from them (Alkabashi & Wu, 2009; Khalil & Halis, 2017; Fetouri, 2016). Some studies have also confirmed that the Libyan government invested in the introduction of ICT into schools, but this was prior to violent conflict (Alkabashi & Wu 2009; Hamdy 2007). Furthermore, all the studies mentioned comment on the limited investment made and the inadequacy of the planning in respect of the desire to build an online educational infrastructure for schools in Libya. This is unfortunate since as noted by Fetouri (2016), e-learning is definitely a solution to the situation where public schools are overcrowded with students, there are insufficient numbers of teachers to cope with the demand, books and transportation facilities are in short supply, and parents are unable to afford the higher fees and costs of transportation for private schools due to the high levels of poverty they are facing after the conflict.

Milton (2013) has argued that because of Libya's geographical position in a high-risk region, its inherent lack of security and safety, and long history of conflict with the USA, the country has faced substantial obstacles in integrating ICT within education because these prior conditions have resulted in a general lack awareness and funding. Furthermore, the literature has indicated that the major deficiencies in Libyan schools include: low levels of management experts and performance, lack of supervision policies for school administration, lack of technology usage in the curriculum, injustice in selection and assigning duties among teachers, low levels of qualified as well as trained teachers, lack of financial and non-financial benefits for teachers, lack of planning to overcome the present situation, lack of parents' support and follow-up for performance improvement, and higher numbers of student dropouts (Loops, 2016; GCPEA, 2018; Gadour, 2006; Khalil & Halis, 2017; Fetouri, 2016).

Previous studies have summarised the factors that negatively influence the efforts of e-learning systems in school settings, mentioning: lack of adequate infrastructure and digital device accessories, non-availability of skilled people who can facilitate, manage and maintain the deployed digital facilities, limited professional training programmes, cultural barriers and resistance to the change (Alkabashi & Wu, 2009; Loops, 2016; Gadour, 2006; Khalil & Halis, 2017; Fetouri, 2016).

## 3.2 CONSEQUENCES OF CONFLICT IN THE CONTEXT OF EDUCATION

Human capital is devastated by armed conflicts as also is the education process. As already noted, armed conflicts lead to the destruction of the general infrastructure, which includes the

school infrastructure and the death or displacement of students and education administrators. By changing the household labour allocations and reconsidering the need for education, parents revise their opinions on the value of sending their children to school (Buckland, 2005; Abdi, 1998). And the decision en masse to keep children at home significantly reduces the chances of long-term growth of the country and its chance of recovery. Education reverses the causal chain and helps people overcome poverty as it opens doors to economic opportunities. By investing in education, countries can escape the probability of instability in the future (Blattman & Miguel, 2010). Therefore, it is crucial to guarantee education for people in conflict regions. However, this is unfortunately never easy as such regions suffer from damage to the education infrastructure resulting in poor education facilities (Ichino & Winter-Ebmer, 2004; Akresh & de Walque, 2008). In conflict regions, a large proportion of the male population, including young boys dies. Therefore, efforts made should focus on both male and female populations. Even the patriarchal societies have been found to focus on the education of girls during and after times of conflict due to losses in the male population. The empirical studies have often ignored the (negative) relationship between conflict and education, one reason being the absence of quantitative data on human capital indicators (Barakat & Urdal, 2009). However, even in areas where data exists, the focus of the studies has been on the impact of conflict on economic growth and macroeconomic indicators. The rate of education is calculated by taking into account the years of schooling, and enrolment rates whereas the rate of armed conflicts is measured by conflict incidents and civilian deaths.

The economic consequences of conflict were empirically tested by Collier (1999) who evaluated the impact of civil wars on the composition and growth of gross domestic product (GDP). Specifically, it is seen that a negative correlation exists between post-conflict growth rate and duration of war. In this respect, Weinstein and Imai (2000) demonstrated that conflicts negatively influence private investment and since that declines, so too does the growth rate. Stewart et al. (2001) conducted a holistic overview of the socio-economic cost of war in different countries using data from the 1990s, finding that conflict worsened tnot only the macroeconomic situation but also the level of human development. Likewise, Ichino and Winter-Ebmer (2004) conducted a cross-country analysis of the impact of World War II on the number of completed years of education in Germany and Austria, reporting that this negatively influenced the education rate, GDP, and earnings. De Walque (2004) observed the demographic effect of genocide during the Khmer Rouge period, also noting that the the enrolment rate in schools declined during that conflict; and focusing on the 1994 Rwandan genocide, Akresh and De Walque (2008) utilized two cross-sectional household surveys and established that

following this atrocity, the educational accumulation dropped sharply. Hence, it is seen that there is a robust negative relationship between armed conflict and education even under different circumstances.

More recently, Wharton and Oyelere (2011) found no significant difference in enrolment and education accumulation between the Colombian children in high and low conflict areas. However, a difference of a little over half a year was found when non-migrant children were compared with internally-displaced children. Dabalen and Paul (2012) utilized data from Cote d'Ivoire and found that when victimization increases, the education decreases for school children. Using a time series dataset in the context of Guatemala, Chamarbagwala and Moran (2011) evaluated the effect of the three periods of Civil War, finding a negative correlation between conflict and enrolment rates among school children in rural areas. And Singh and Shemyakina (2013) conducted an India Human Development Survey to determine whether there was a significant negative impact of the Punjab Insurgency on students going to school, reporting that student attendance did indeed decline during the conflict period.

It is important to note that with the increase in availability of data from conflict regions, the literature on gender-related issues in conflict regions is also increasing. Poirier (2012) utilized cross-sectional data relating to Sub-Saharan African countries to confirm the belief that conflicts negatively influenced the enrolment and attainment of education generally but particularly in respect of girls. Likewise, Shemyakina (2011) employed panel data and found that enrolment of girls in primary schools during conflicts in Tajikistan was negatively correlated with the degree of violence. Both these studies showed the significance of analyzing gender differences when evaluating the attainment of education for children during armed conflicts. Such studies also propose alternative solutions for education in conflict periods.

## 3.3  EDUCATION IN CONFLICT ZONES

The literature on the aspect of education in conflict regions is ever-growing (Bensallah et al. 2000; Anderson et al. 2006; Davies 2004; Seitz 2004; Salomon 2004; Bekerman & McGlynn, 2007). In the main, it focuses on education in schools, the reconstruction of public education, and improvement of inter-group understanding and dialogue at primary and secondary school levels.

To help practitioners and educator share their knowledge and experience in such cases, different networks have been established, for example the Inter-Agency Network for Education in Emergencies (INEE) which is steered by a group of committees such as UNESCO, UNHCR,

International Rescue Committee, UNICEF, CARE USA, and Norwegian Refugee Council, and the World Bank (UNHCR, 2006). This large body of organisations is also supplemented by UNESCO's Education in Situations of Emergency, Crisis and Reconstruction Programme, and the Commonwealth Secretariat Conference on Promoting Education in Crisis and Post-Conflict Reconstruction in Africa. Various non-governmental organizations have recognized the significance of the role of education in establishing and promoting sustainable peace in conflict regions. There are also international donors who are supporting and funding peace education programmes. It is within this field that the current research is located (Tomlinson & Benefield, 2005).

## 3.4 THE RELATIONSHIP BETWEEN CIVIL CONFLICT AND EDUCATION

Several researchers have contributed to the literature by studying the relationship between civil conflict and education, but there is a dearth of empirical work in this regard. One empirical study that has been conducted and that explored the quantitative analysis of the effect of civil conflict on academic achievements (Rodriguez & Sanchez, 2010) shows that this area remains understudied. Hence, there is a gap in the literature which the current doctorate thesis will fill. Conequently, the existing literature on the subject will be reviewed to contextualize the topic and justify the relevance of this study. In undertaking this review, the various studies reported are grouped according to themes and patterns.

Swee (2008) utilized the municipality level data related to war casualties from the Bosnian War (1992-95) and analyzed the variation in the intensity of war and birth cohorts of children, to identify the impact of civil war on schooling attainment. It was determined that the individuals in cohorts affected by war were less likely to finish their secondary level studies if they resided in those municipalities where intense war was taking place. However, no significant impact of war was found on primary schooling. By employing these results, Swee (2008) argued that due to youth soldiering, the Bosnian war negatively influenced school attainment and that there was no other direct mechanism affecting the school attainment e.g., exodus of teachers or damage to education infrastructure (Collelldemont, 2015).

Hager (2009) also discussed different mechanisms that might have negatively influenced which school attainment during war time such as the physical and mental health of individuals, damage to housing units during wartime, and migration.

In their research examining the effect of the Rwandan genocide on children's human capital investment, Akresh and De Walque (2008) employed two cross-sectional household surveys to collect data about the situation before and after the genocide. Specifically, their data covered whether children's school enrolment was affected and whether or not a particular grade was completed. Children who were exposed to conflict were compared with children of the same age groups but who were not exposed to conflict. They found that civil war and particularly genocide was the most destructive of the social phenomena, particularly for school-going children. The researchers also found a drop in educational achievements of one-half year of children who were exposed to genocidal conflict, and that such children were also less likely to complete the third or fourth grade. Further, the results of the study showed poor primary school education among Rwandan children of conflict region, which contrasts with the results of Swee's (2008) study of Bosnian children.

Bellows and Miguel (2006), studying the aftermath of civil war in Sierra Leone, a conflict that lasted for a little over a decade, i.e., from 1991 to 2002, obtained similar findings to Swee (2008), reporting that civil war significantly influences enrolment in a negative manner, and creates a fear of going to school among communities. By employing the governmental data from the Institutional Reform & Capacity Building Project (IRCBP), the researchers studied local institutional and socio-economic outcomes in 2004 and 2005.

As indicated earlier, Bellows and Miguel (2006) observed that there was no substantial impact of war on school enrolment in 2004 and 2005. They also indicated that the areas suffering from violence showed better outcomes after the war was over but the effects were not significant enough. In essence, Bellows and Miguel (2006) pointed out that following the results of their research there was no evidence of civil war causing adverse impact on the local institutions but there is evidence that the local government and stakeholders required extensive efforts to deliver education to school children. However, the impact was aggregate in nature on the living standards.

Lai and Thyne (2007) also studied the impact of civil war on enrolment and expenditure on education, using UNESCO education data. They adopted two causal mechanisms to explore these impacts, finding support for the results of Akresh and de Walque's (2008) research. Specifically, Lai and Thyne (2077) focused on the 'loss of people and infrastructure' and the 'loss of funds to military expenditure', finding evidence of the destructive impact of civil conflict on the educational system due to a decline in expenditure and a decline in the enrolment rate during the civil war.

It is important to point out that the studies conducted by Swee (2008), Lai and Thyne (2007), Bellows and Miguel (2006), and Akresh and de Walque (2008) showed no clear consensus in the existing literature regarding the relationship between civil conflict and educational enrolment. This understanding could indicate the possibility that the effect and characteristics of civil war differ from one region to another, and such a possibility justifies the need to undertake further research to explore the relationship between civil war and education in the context of the countries experiencing such conflict, in recognition of the fact that it seems impossible to generalise in any absolute way. Bundervoet (2012), Dabalen and Pau (2012), and Merrouche (2006) have attempted to explore the relationship between education and civil conflict by utilizing different identification strategies. Dabalen and Paul (2012) estimated the causal impact of civil war on years of education in a cohort of students in Cote d'Ivoire, calculating the average impact by taking into account the 2008 household survey and data on local instances of conflict from the Armed Conflict Location and Event Database (ACLED). They used two different identification strategies. In their first strategy, the department and year of birth were taken to determine the exposure of an individual to war and then used to quantify the differences in years of education for school-going children living in war areas. In their second strategy they used victimization indicators to implement the propensity score matching technique to minimize selection bias. Their results showed that war had a devastating impact on education.

Bundervoet (2012), in line with the approach of Dabalen and Paul (2012), also examined the relationship between the years of education and conflict in the context of Burundi. The study examined the effect of poor childhood health induced by war on educational attainment by using a panel of children to determine whether the health-related impacts of war negatively influenced schooling in later life. Bundervoet (2012) found that malnourished children on average had less education compared to children of the same age but who were healthier; but that the relationship was stronger among those children who were exposed to conflict for a long time.

The observed results could be explained by the enrolment effect, i.e., malnourished children at baseline were not likely to be enrolled in school, and by drop-out or grade repeating effect. Bundervoet's (2012) findings revealed a micro-level pathway between civil conflict and poor longer-run economic performance meaning that if children experience ill health in their early childhood due to civil war, they can experience poor school performance and continue to be impacted upon later in life.

51

Also studying the relationship between years of education and conflict, Merrouche (2006) used instrumental variable regression and a difference-in-differences approach to identify the impact of landmine contamination on years of schooling by utilizing data from Cambodia. The researcher found that there was an average loss of 0.4 years of education due to exposure to landmines in Cambodia. Three possible factors underpinning the loss of education years were identified as: the downgrading of educated people during the regime, the destruction of technological delay and physical structure, and the direct impact of landmines on the returns to education. Although different empirical strategies have been adopted by different researchers (Dabalen & Paul, 2012; Merrouche, 2006; Bundervoet, 2012), the results of these studies led to a similar conclusion, that being: conflict negatively influences years of schooling.

Some researchers such as Kecmanovic (2012), Annan et al.  (2011), Shemyakina (2011), Valente (2011), and Justino (2011) focused on the relationship between conflict, education, and gender. Annan et al. (2011) studied the gender-based effect of war by employing a quasi-experiment conducted in Northern Uganda. These researchers found that the abduction led to a significant negative impact in human capital for male population but not for the female population. The male population could get 0.51 less years of education for each year of abduction. Annan (et al. 2011) stated that the differences between the male and female population arises because of the abduction alternate used against females. This is made further complicated by low educational investments in females, lack of employment opportunities for females, and in some instances total lack of education for females.  However, the researchers observed that females who were forced to give birth to children during their time of abduction had more than a year less of education as compared to other females. Although educational opportunities were limited for females, the lower probability of returning to school also arose because of forced motherhood (Annan, et al. 2011).

Annan & Blattman (2010) found similar results for Uganda with respect to a group of children. These researchers found that the male youth which was abducted received 0.75 year less of education. This result is of paramount significance given the fact that lower education levels lead to lack of transferrable skills and a deficiency in human capital. This ultimately lessens the lifetime earning ability (Annan & Blattman, 2010).  Shemyakina (2011), Valente (2011) and Justino (2011) found that armed conflict negatively influenced the enrolment rate and education accumulation. They analysed with respect to heterogeneous impact by gender. Shemyakina (2011) examined whether or not the exposure to conflict, negatively influenced the possibility of completing mandatory schooling. Results were collected with respect to studying Tajikistan as the country was previously part of USSR and was involved in violent civil war (1992 to

1998). The results of their study showed that the exposure to conflict negatively influenced the school enrolment rate for girls and little negative influence was also found in the enrolment rate for boys (Shemyakina, 2011).

It is important to note that the results of Shemyakina's (2011) study were different from those of studies conducted by Annan et al. (2011) and Annan an Blattman (2010). Some researchers do, however, support the findings obtained by Shemyakina (2011). Valente (2011) explored the Nepalese context which experienced civil war from 1996 to 2006 due to insurgency by Maoists. Violence data from individual districts were used to study the war's impact on education and marriage. Valente (2011) found that the intensity of conflict had a small positive impact on educational attainment among females but no significant negative impact among male students. Sheymakina's subsequent research with her co-author Singh (Singh & Sheymakina, 2013) confirmed the findings obtained earlier by Sheymakina (2011). Particularly, Singh and Sheymakina (2013) explored the gender specific long-term impact of insurgency in the Indian Punjab on the attainment of education of students aged 6 to 16 years of age when the insurgency took place. They found a statistically significant and substantially negative impact of terrorism on the attainment of education for girls; the women from the affected cohort received 0.60 to 0.69 less years of education as compared to women who were not exposed to conflict. These numbers are substantial given the fact that women in the Indian Punjab usually only had 4.83 years of education on average. Singh and Sheymakina (2013) observed that the results arose because of the decrease in household income due to which households reduced their investment in girls' education comparatively. This showed that when armed conflicts precipitated decreased parental resources, the preference was to educate male children.

The research by Justino (2011) found evidence in support of the findings obtained by Annan and Blattman (2010) and Annan et al. (2011) in the long term. Justino (2011) researched the short-term effect of conflict in Timor Leste with respect to education among girls and boys. The effect of the 1999 conflict on school attendance among girls and boys in 2001, and its long-term effect as established in 2007 were charted, demonstrating mixed short-term effects but definite long term effects with a negative correlation between the conflict and attainment of education among boys. Additional support for these findings comes from the studies by Annan et al. (2011), Kecmanovic (2012), and Annan and Blattman (2010). Kecmanovic (2012) studied the impact of the Croatian war of independence (1991–95) on education, employment, and income. The male cohort selected for this research was that of 1971 as it was assumed by the researcher that the male population born during 1971 was most likely to have been drafted in the army. The researcher used the occurrence of war and the following impact of war as a

natural experiment and applied various techniques to determine the effect war had on attainment of education. Kecmanovic (2012) found lower levels of education among the male cohort of 1971 in comparison with the female cohort of the same period and highlighted the likelihood of males being drafted into the armed forces as the cause. When all empirical studies are summed up, it can be seen that there exists a significant gender- oriented effect in the relationship between war and the attainment of education but that the balance changes according to circumstance as in some regions it is boys' educational attainment that is retarded whilst in others the attainment of education for girls is significantly negatively influenced. This inconsistency in findings confirms there is no legitimacy in generalisation, i.e., a significant negative influence of one cohort in a particular region cannot be used to predict the outcome in another. Hence, there is justification and motivation to conduct further research so that the relationship can be explored in more detail.

It can be seen that the focus of the aforementioned empirical studies has been on collecting evidence from developing or underdeveloped countries but it is also possible to collect data and conduct similar research within the developed countries, as many of those countries have suffere from what are now historic conflict such as World Wars. Akbulut-Yuksel (2014) and Ichino and Winter-Ebmer (2004) presented evidence from one such country (Germany) to explore the relationship between conflict and education. Akbulut-Yuksel (2014) employed the same methodology as that adopted by Akresh and de Walque (2008) to study the long-term impact of large-scale physical destruction on the attainment of education, health status, and labour market outcomes for German children after World War II, while Ichino and Winter-Ebmer (2004) used WWII as an instrumental variable to provide evidence on the causal impact of education on earnings by comparing Germany and Austria (where the civilian populations were heavily impacted) with Sweden and Switzerland (where civilians were not directly affected) by the conflict. Both researchers found that those Germans who were in the school cohort at the time of WWII received less education compared to their counterparts.

Akbulut-Yuksel (2014) showed that German children who were of school-going age at the time of WWII received 0.4 years less of education in adulthood. The researcher highlighted that a significant mechanism causing the effect was the absence of teachers and destruction of schools. Ichino and Winter-Ebmer (2004) found that individuals who were aged 10 years during or immediately following WWII received less education and were subsequently forced to accept lower-level jobs due to poor education in adulthood compared to other cohorts in Austria and Germany, and compared to children of the same cohort in those countries which were not affected by WWII. The researchers also argued that individuals were affected by war because

it deteriorated their human capital. It is worth noting that results from the studies by Ichino and Winter-Ebmer (2004) and Akbulut-Yuksel (2014) were not in line with those obtained by Swee (2008) and Bellows and Miguel (2006) regarding the relationship between educational attainment and conflict in developing countries. It is also important to note that the findings of Swee (2008) and Bellow and Miguel (2006) were different from those of Ichino and Winter-Ebmer (2004) and Akbulut-Yuksel (2014) as the former researchers found that conflict did not significantly negatively influence schooling but rather affected the progression of educational development in country. Consequently, it is seen that the impact and characteristics of conflict differ from one case to another, and again there is justification for more research in this field for a better understanding of the relationship between conflict and rate of education in different conflict cases around the world.

In analyzing the existing empirical studies on the effect of violence on access to and level of education achieved, Justino (2010) highlighted that the limited understanding generated on this issue in conflict zones, essentially because of the scarcity of empirical attempts to research into this area. Not surprisingly, Justino's (2010) own study suggested that there was still room for further research in the field and the current study is a response to that call. Moreover, given the variance in the findings of previous research studies, associated with the diversity of regions, this study makes an effort to create a unifying factor in the wider debate by considering the potential of e-learning as a means of redressing the balance, however that balance falls.

## 3.5  POLICY ON EDUCATION IN ARMED CONFLICT

The review of the Policy literature on the subject shows that since the Universal Declaration of Human Rights 1948, the international community has committed itself to achieving universal education. This commitment is reflected in different declarations of the UN such as the World Declaration on Education for All (by UNESCO, 1990), the Convention on the Rights of the Child (UN, 1989), the Convention on the Rights of Persons with Disabilities (UN, 2006), and the Dakar Framework for Action (UNESCO, 2000). There are also other policy documents which are non-binding but still highly persuasive in nature which reaffirm the commitment to education for everyone, such as the 2000 World Education Forum Framework for Action Promoting Education for All, the 1990 Jomtien Declaration, and the 2000 Millennium Development Goals (MDGs). These documents indicate that all children must have access to education. For example, article 28(a) of the Convention on the Rights of the Child provides that primary education must be made compulsory by the state and must be made available free of cost to all. McCowan (2010) observed that there is still a vague conceptualization of education

when article 28(a) is scrutinized because numerous questions emerge when the article is applied to children who are in conflict zones.

These questions address whether school is the best thing for children; whether the needs of children are being met safely by schools during times of conflict; and, whether there is any purpose to education during conflict times. And any attempt to answer such questions highlights the tension between inclusive education and education for all (Trani et al. 2011; Miles & Singal, 2010). The position has been re-echoed in literature from governmental agencies, practitioners, NGOs, education networks, and UN agencies (Molteno et al., 2000; INEE, 2010). While it is argued by some practitioners that inclusive education is difficult to achieve, others argue that it is, nevertheless possible (Pinnock & Hodgkin, 2010). An attempt to clarify this has been made by Miles and Singal (2010) who stated that inclusive education highlights the problems related to social justice.

By the year 2000, there was visible but slow progression towards universal education. This resulted from the second MDG on universal primary education (UPE) that made inclusive education one of the chief strategies for addressing exclusion and marginalization (Peters, 2009; Delamonica et al. 2004; UNESCO, 2011). Although globally 52 million additional children were enrolled in primary schools in the period of 1999 to 2008 with a 1/3$^{rd}$ increase in sub-Saharan Africa (UNESCO, 2011), there still remained 58 million children out of school as of 2012 (UNESCO, 2015). The evidence shows that it is imperative to accelerate progress in education as this is crucial for achieving wider MDGs in areas such as child survival, poverty education, and maternal health (UNESCO, 2011). Researchers such as Trani et al. (2011) have pointed out that Education for All emphasises education for disabled people in conflict regions.

A great wealth of literature shows that disabled children experienced marginalization, invisibility, discrimination, and exclusion, not only in emergency situations but also in educational settings (Bush & Sartarelli, 2000; Bensalah, 2002; Trani et al. 2011; Reilly, 2010; UNESCO, 2010, 2015; World Vision, 2007). This was apparent in the Dadaab camp where disabled children were subjected to verbal and physical abuse (Reilly, 2010). Similarly, in Darfur disabled children were excluded from both formal education and informal education, recreation, and socialization (Trani et al., 2011). UNESCO (2011) warned that continuous marginalization of children with disabilities can increase the likelihood of failing to achieve the goal of education for all. In essence, these policy contradictions have prompted the conduct of this research around issues of education for children during armed conflicts for disabled children and all children in Libya who are unable to access education.

## 3.6 THE PRACTICE OF EDUCATION BEFORE, DURING AND AFTER ARMED CONFLICT

The final revelation from the literature is associated with the different practice issues impacting upon education in conflict situations (UNESCO, 2011, 2015). Though the provision of education is the responsibility of the government, evidence suggests that education in conflict situations is also overtaken by rebel movements, or civil society organizations, or NGOs, and even by criminal networks (Obura, 2003; Boyden & Ryder, 1996; UNESCO, 2011; Sommers, 2002). This leads to an appreciation of the various impacts of conflict on education, highlighting that it is not just teachers who are involved in dispensing education in conflict zones but also the civil leaders, humanitarian workers, and even the rebels and army officials. This directly influences the curriculum and education programming. Boyden and Ryder (1996) recommended that the most effective eduction curriculum is one that is relevant to the everyday life of children. Smith (2005) observed that the stage approach is utilized widely in programming education in conflict settings. Given these perspectives, this study employs the main stages of conflict highlighted by Byrne (1996), Seitz (2004), and Brahm (2003) to map out education provision.

The findings from the literature are summarized in Table 3-1, which shows the four stages in conflict situations in which education takes place. In the pre-conflict stage, the ordinary curriculum dominates the educational offering, and this usually comes from the government in power. In most African countries this curriculum is inherited from the colonial empires and is focused on numeracy and literacy using foreign textbooks and a centralized system of examination (Kelly & Odama, 2011). Since the nature of the African curriculum was colonial, it did not incorporate conflict prevention. In the conflict stage, the emergency curriculum dominates education, being founded on the basis of the protective purpose of education, and it adopts the one-size-fits-all approach, as seen for example in refugee education in Dadaab and Rwanda (Obura, 2003). It is standardized by the INEE (2010).

*Table 3-1: Educational programming*

| Stage of armed conflict | Dominant curriculum | Silent conflict |
|---|---|---|
| Pre-conflict | Ordinary | Silent curriculum |
| Conflict/emergency | Emergency | |
| Recovery | Peace with resistance, lack of infrastructure | Online education curriculum |
| Post-conflict/Reconstruction | None | |

However, Nicolai and Triplehorn (2003) observed that in Chechnya, schools were bombarded during class hours, and Rwandan schools also presented the same image of atrocities during the 1994 genocide. In order to prevent such recurrences, the INEE released its 'Protecting education in countries affected by conflict resource pack' (INEE, 2012) which spelled out how education should be sustained and protected.

In the recovery stage, peace education dominates, promoting the development of the skills, knowledge, values, and attitudes required to bring about changes in behaviour which enable the prevention of conflict and conflict resolution, and simultaneously lays down the foundation of such conditions which are supportive to peace (Harber & Sakade, 2009; Fountain, 1999). Although various organizations endorse peace as the gold standard of education in conflicts, some researchers have challenged it on the basis of representing a flawed understanding of human psychology (Boyden & Ryder, 1996), but research is needed to test this assertion. And with respect to the last stage, a dominant curriculum emerging in the post-conflict stage, the literature suggests that different curricula exist. For example, Stabback (2004) observed that in Bosnia and Herzegovina, there are three parallel curricula representing the heritage of three peoples: Croats, Bosniaks, and Serbs, which emerged during conflict times. Winthrop (2009) in her doctoral thesis, highlighted the tension between two policy positions, one arguing for rapidly restoring the curriculum from pre-conflict times, and the other advocating expressive activities, the aim of which should be psychosocial support. This position of difference highlights the uncertain nature of curricula during post-conflict settings which must be investigated in the local context of the country. Traversing all conflict stages is the silent curriculum but how this curriculum could be delivered remains questionable. This has been explained as being in addition to the official curriculum (Meighan & Siraj-Blatchford, 2003).

The silent curriculum is unnoticeably related with informal education which might become subjected to colonial education in the public domain but there is a need to understand and to explore the method of delivery of its delivery. This silent curriculum could also be positively and negatively related to the stage of conflict and may be delivered by different individuals present in the conflict situation. Due to it being hidden, there is little substantial research conducted on the silent curriculum in conflict settings (Meighan & Siraj-Blatchford, 2003). Therefore, there is a need for collaboration between 0the government, public educational institutes, and leadership to deliver an alternative curriculum during conflict.  Harber and Sakade (2009) claimed that that silent curriculum could be delivered at the initial stage of the conflict, but that if left until for example, to start after a 5-year period of conflict, it would be very difficult to implement, which is one for the current study's focus on introducing an online

education system via the school curriculum in Libya. Some work has been undertaken on the silent curriculum but there is still a lack of research on the delivery of education through e-learning at second school level in conflict zones; hence this study addresses that shortfall.

## 3.7 INSTITUTIONS AND LEADERSHIP TO DELIVER EDUCATION IN CONFLICT

Recent literature on the subject of leadership has revealed that the agency of school leaders, and the institutional setting approaches employed in practice can only be understood by evaluating the context (Clarke & O'Donoghue, 2013). Fundamentally, across different educational contexts, the school leadership continues to be associated with the transformation of the education system, e.g., it is expected that leaders will adopt a purposeful and moral approach towards leadership, challenging the practices which marginalize or exclude others from education (Shields, 2014; Ruairc et al., 2013). Similarly, there are also calls for transforming the leadership of schools in ways which create room for shared responsibility and creativity among teachers to develop innovative education systems for schools (Edmunds & Macmillan, 2010; Ainscow, 2011).

However, the role and practice of school leadership in schools serving the communities in conflict regions go beyond such commonplace reforms to involve reversing the impact of war/violence for teachers, students, and their communities. The twin mandate of reform and reconstruction by the World Bank (2005) provides an opportunity to societies emerging from conflict. Therefore, it is vital to have committed leadership to facilitate the transformation of fragmented communities by introducing an alternative schooling system in conflict zones. That said, educators are often trapped in overbearing and dysfunctional systems in which teachers have to bear the ills of society in their day-to-day encounters with members of the affected community even when teachers themselves are affected. Therefore, it is necessary to consider security as a major element in the introduction of a new education system in the country. The purpose and interest of the current study is on understanding and exploring how teachers and headteachers perceive and develop the participation of teachers in the leadership practice of school when responding to the complex learning needs of children from areas affected by the conflict, and how they promote e-learning practices as an alternative in post-conflict schooling in Libya. Therefore, there is a need to understand the context in the institutional, organizational and individual (teacher) context before proposing e-learning as a workable substitute for the traditional education system in Libya. The various theoretical frameworks to enable this understanding are covered in this chapter.

## 3.8 INSTITUTIONAL THEORY IN EDUCATION

It is now widely known that some educational systems can have better organizational memories as compared to others and it is also possible for some to be better at organizational learning comparatively (Levitt & March 1996). Moreover, March (1999), from the perspective of organizational memory and learning, argued that just as some individuals are better learners than others, so to are some organizations better learners than others. Therefore, institutional educational changes may be resisted by incompetent professionals yet facilitated in their introduction by the capable individuals in an organization (Zhang et al, 2014; Stensaker & Meyer, 2012). Finelli et al. (2019), recognizing such a phenomenon, indicate the need to understand the institutional forces commonly used for the implementation of change in the institutions. Two questions which need be addressed when exploring the differences in capacities between organizations are: (1) what are the barriers which make it difficult to bring significant educational change? And (2) under what circumstances can significant change be brought about? These questions can be answered with the help of institutional theory.

A key question related to institutions is that as to why the same institutions exist in almost all societies (schools, government, military, hospitals), and the answer is basically that all societies face similar problems, such as illiteracy if people are not adequately educated, poor healthcare if healthcare facilities are not provided, vulnerability to crimes if the police and military are not maintained, and lack of organization if the government is not formed. However, even when the societal needs are the same, the manner of addressing them can be different. For example, the Japanese system of education is entirely different from the American, but there are similar major stakeholders in both; the educational institutions have the same denominators at the conceptual level. Scott (1995) provided the following definition: institutions comprise normative, cognitive, and regulative activities and structures which provide meaning and stability to social behaviour. There are various carriers which provide momentum to institutions such as cultures, routines, structures, and these operate at multiple levels of jurisdiction.
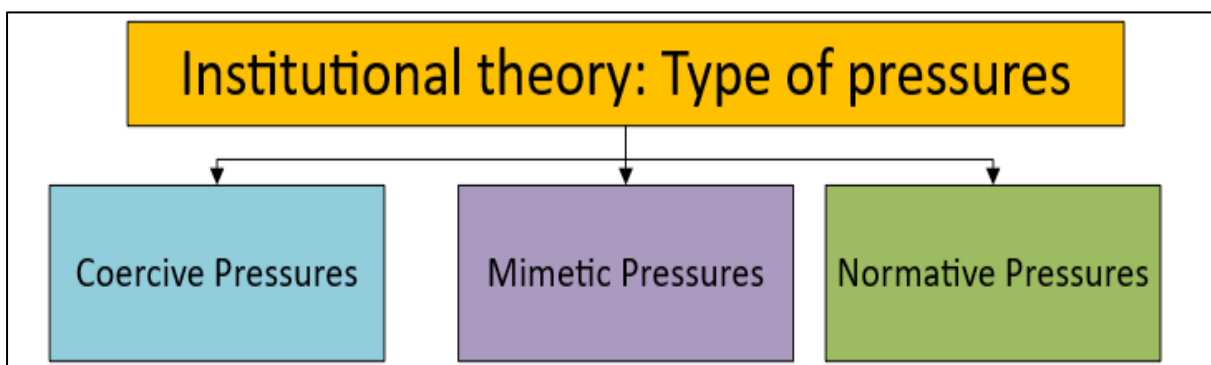


*Figure 3-1: Institutional theory: Types of pressures; Source (Scott, 1995)*

When this concept of institutions is disaggregated it can be seen as providing three pillars: the normative, regulative, and cognitive (Scott et al., 2000). The regulative pillar describes the actions through informal and formal rules to establish, monitor, and sanction activities of the institution e.g., professional standards, rules, and regulations (Harris & Ellis, 2019). The normative pillar places emphasis on norms and values about how valued ends should be pursued by educators through legitimate means e.g., a coach should teach good sportsmanship instead of lust for winning (Frolich, 2013). And the cognitive pillar provides the filter through which reality is viewed by people and which enables them to give meaning to their interpretation of the world (Jepperson, 1991). Institutional theory holds that there are major forces commonly used by public institutions that create resistance to change (Tuner & Angulo, 2018).

## 3.9 THE INSTITUTIONAL ENVIRONMENT AFFECTING EDUCATIONAL ORGANIZATIONS AND CONFLICT

The 1960s saw a compelling momentum towards recognizing organizations as open systems which can interact with their internal and external environments (Katz & Kahn, 1966). This model with its throughput, input, feedback emphasis, and output depicts the organization as being inextricably linked with its external environment, rather like a life-support system (Macfadyen & Dawson, 2012). In the educational organization, the school's external environment is regarded as providing inputs such as instructional materials, teachers, and state laws, whereas the outputs comprise the educated students who progress to employment or Higher Education (Glazer et al., 2019). The feedback comes in different forms such as test score information, acquired experience, parental support, and new tax dollars (or lack of such) (Bray & Russell, 2018).

Scott (1991) recommended an open system model which acquired acceptance in the 1960s but was dubbed as having a narrow focus because it concentrated on the technical aspects and flow of resources vital for supporting the process of production to change inputs into outputs. The open system model was met with criticism by Meyer and Rowan (1977), who argued that the focus of the open system theory was on changing the nature of organizations as they purported to establish productive and effective exchanges with their respective environments, whereas the focus of institutional theory was on constraints in the organizational environment which limited the ability of the organization to change (Powell & Solga, 2010).

In the process of theory building, the open system theory became a sub-set of institutional theory. Scott (1991) pointed out that one of the chief contributions of institutional theorists was

the study of organizations in the context of reconceptualizing the organizational environment. This reconceptualization began with the awareness that educational organizations co-existed with all other organizational types in the organizational field (DiMaggio & Powell, 1991). The organizational field refers to those institutions which constitute an acknowledged area of institutional life such as key suppliers, regulatory agencies, resource and product consumers, and other organizations which produce similar products or services (Schubert et al., 2016). For example, the organizational field of schools includes teacher training agencies and programmes, accreditation agencies, state boards, courts, state legislatures, parent groups, universities, and textbook producers (Russell, 2011; Nguyen et al., 2019). However, whilst this concept of 'fields' provides a framework for bounding and locating the interest, it must not be assumed that such fields are static and unproblematic (Scott et al. 2000). The field surrounding the educational system with all its ties binding the players in the field has its own rules and expectations regularly rising on the horizon, and consequently, any change in education at the institutional level must consider the local context in which it operates (Frølich et al., 2016).

The informal and formal expectations, information flows, regulations, myths, norms, laws, values, and so on influencing the schools tend to develop structuration which is a type of connectedness (Enders & Naidoo, 2019). Hence, the interaction between organizations becomes patterned by virtue of different means e.g., contractual relationships, information sharing, informal and formal agreements, and mutual awareness of governance procedures (Scott et al. 2000). In other words, schools know the players on the table and the rules binding them. However, the game becomes interesting when all the players involved come up with rules of their own and expect the game to be played by the rules of their choice. As numerous organizations make accommodations in the education field, a powerful field of forces emerges (Lewin, 1951) which acts in the shape of a network of constraints, like Weber's (1952) iron cage, and constrains schools, limiting them to their respective places. For example, teacher training programmes are organized, and textbooks are written so that state board standards can be adhered to. Such a network of constraints in the organizational field of schools, places serious limitations on the process of change from textbooks and physical delivery of the curriculum to an e-learning curriculum in Libya. Schools are tied by the network of organizations due to operating procedures, laws, bus schedules, purchase orders, expectations of parents and delivery schedules (Maxey & Kezar, 2015).

### 3.9.1 External Environmental Constraints

When a fragmented external environment is being confronted e.g., numerous structures of authority and funding sources, organizations strive to develop elaborated internal mechanisms and sub-systems in a bid to introduce a certain degree of internal stability to counter the complexity caused by the external environment (Meyer, 1992). For example, districts and schools which rely more on funding from the federal government with different independent programmes and budgetary categories tend to develop larger structures of administration compared to districts and schools which rely on funding from the state government. Another mechanism which organizations capitalise upon in order to function in a fragmented environment is the development of routines which have worked in the past. Routine comprises strategies (März et al., 2017), rules (Reale & Seeber, 2011), technologies, and programmes (Zundans-Fraser & Bain, 2016) which drive the organization, and therefore, routines that comprise strategies, rules, technologies, and programmes need to be considered as important ingredients of an e-learning approach to the delivery of the secondary school curriculum in Libya.

The vital practice of utilizing routines is important in the process of educational change. Levitt and March (1996) indicated that routines are based on the interpretation of the past more than on the anticipation of the future. Routines are developed to adapt to experiences in a piecemeal manner (Roegman & Woulfin, 2019), but then become part of the organization's collective memory and are transferred through socialization, culture, the hiring practices of personnel, professionalization, and imitation. As such they become the force for stability instead of change (Pololi et al., 2013). The pressures on schools from agencies and organizations in the environmental fields (e.g., court decisions, accreditations, state regulations, and teacher training programmes) are the same across the country and as a result, public schools in one part of the country tend to be similar to the public schools in another part of the country (Ishimaru & Takahashi, 2017). In the field of the organization theory, this tendency of homogenization is regarded as isomorphism (Rowan & Miskel, 1999), which by definition is a limiting process whereby one unit in a population is forced to resemble other units if the environmental conditions faced by them all are the same (DiMaggio & Powell, 1991). The greater the limiting pressure from the environment, the lesser is the extent of freedom for educational change. Consequently, educational organizations become increasingly alike (Barth, 2013).

DiMaggio and Powell (1991) identified three mechanisms through which the pressures to homogenize are exerted. Coercive isomorphism stems from compliance pressures which could

be formal or informal in nature. Such pressures can be highly formal, visible, and forceful, requiring the development of rules and regulations within schools which must be adhered to, e.g., individual learning plans for children with needs (DiMaggio & Powell 1991). The pressures can also be invisible or subtle in nature, but no less powerful than those which are overt, for example, the belief of the local board that a male individual is better suitable to handle the pressure of the school principalship (Stulberg & Chen, 2014; Elliott et al., 2013). Mimetic isomorphism arises when one educational organization consciously shapes itself after another which it believes has a higher level of success in the eyes of the public (Elliott et al., 2013). The intention of mimicking is encouraged constantly and reinforced by various elements such as by:

a) educational consultants who vigorously spread information about operations and activities taking place on the other side of the wall (DiMaggio & Powell, 1991).

b) academic conferences which serve as a supermarket of ideas (DiMaggio & Powell, 1991).

c) the rapid movement by administrators between farther schools and nearer schools (DiMaggio & Powell, 1991).

Normative isomorphism is rooted in the professionalization process in which the codes, values and standards are devised and imposed upon universities by accrediting institutions and agencies (DiMaggio & Powell, 1991). These agencies also serve as gatekeepers to determine who is to enter the profession, therefore further reinforcing normative expectations and order in respect of the behaviour of administrators and teachers. The reinforcement of the process of institutional homogenization is the struggle for legitimacy which is constantly pursued by the public schools.

By and large, this struggle occurs because schools fit into the classification of organized anarchies, in which these three rationalistic conditions are not naturally found (Cohen et al. 1972). A question then arises about the goal of education, the answer to which is in the shape of an endless list. The goals in an education system are ambiguous and sometimes conflicting with all those involved in the process having their own personal, and professional development goals associated with organizational development and change (DePalma & Atkinson, 2010). There is also uncertainty about the technology of action, seen for instance in the question: What is the best way of teaching maths or reading? The response is usually "it depends" in an organized anarchy.

Finally, the smooth participation of members is the epitome of an organized anarchy (Howells et al., 2014). Professionals usually pick the projects they work on and utilize various strategies of teaching, evaluating, and motivating on the basis of their judgment of the different circumstances they face in the classroom or school (Armstrong & Stewart-Gambino, 2016). Under such circumstances external organizations (such as unions, political parties, parent groups, and professional associations) strive to fill the uncertainty gap by imposing a definition of their own for goals, teaching technology, and standard of excellence (Armstrong & Stewart-Gambino, 2016) which should be considered in the development and implementation of the e-learning schooling system in Libya.

These externally-defined goals are selectively adopted by organizations when attempting to establish their legitimacy in the eyes of the public (Donina et al., 2015). They try to assert societal confidence by doing what the majority of stakeholders expect them to do. By legitimizing themselves, organizations establish a justification for claims on societal resources, and protect themselves against attack (Ben-Asher, 2019). Therefore, when educational organizations state that they are doing what the state requires them to do they are saying that they comply with the rules, regulations, and cultural expectations (Aldrich, 2000). Three leading scholars in the area of institutional theory argued that school organizations go to greater lengths not just to accomplish instructional ends but also to maintain their legitimate status as schools in the eyes of the public (Clark, 2013). They seek approval from society in which they are operating and as such they depend on their structural conformity, achieved by their compliance to a set of rules which are particularly and professionally mandated, and react when threatened (Meyer et al. 1992). As legitimization is sought by schools, the process of replication begins. This means that the educational organizations strive to look for guidance on what is done by highly esteemed schools (Burley et al., 2012). The unintended outcome of this struggle to achieve the status of the legitimate institution is that educational organizations are often rewarded for correctly conforming to the programmes, structures and processes instead of for the quality of the product/service (Scott, 1981; Rowan & Miskel, 1999).

Institutional theory also finds that new schools are not delivered by the wayward stork but are established in the image of legitimized educational organizations which exist at their founding. Creating a new organization for the e-learning school education system by reflecting on its existing counterparts is called imprinting, a process which Holmberg Hallonsten (2015) indicate as leading towards replicating or imitating existing schools and thus contributing towards the homogenization process. Any school which strays far from the established norm by attempting

a dramatic and drastic change risks losing its status of being a legitimate institute and also loses the support of the society in which it is operating (Smith & Keith, 1971).

### 3.9.2 Institutional Constraints on Individuals

Institutional theory argues that the establishment of the top-down field of forces limits the independent action at each organizational layer including at the individual level of managers, leaders, and other workers (Schönrock et al., 2013). Resultantly, teachers and administrators are involved in the institutional world which unknowingly or knowingly formulates not just the work patterns but also the thinking about the work (Creemers & Kyriakides, 2010). March and Olsen (1996) argued that even the concept of the independent agent with a specific way of acting, feeling, and expression is an acquired one involving the socialized understanding of everyone. A somewhat continuing complaint by outsiders against educational leaders in some developed countries is their inability to introduce genuine educational change as they are argued to have been cut with the same cookie cutters (Masschelein & Simons, 2015). According to institutional theory there is substantial validity to this view. DiMaggio and Powell (1991) believe that managers and their staff to some extent are taken from the same institutions and filtered through the same set of attributes, and hence see the problems in the same way and approach the decisions similarly; likewise, they also see the same procedures, policies, and structures as normatively legitimized and sanctioned. Institutional theory, in a volatile world of top managers, also provides insight into why educational leaders undertake the efforts of catching each successive wave of innovation which is sweeping through the country (Aldrich, 2000).

Meyer et al. (1992) argued that even though it is common to express strong disapproval of the traditionalism of the school system in the US, it is also important to take into account the extraordinary rate at which the different kinds of innovation are incorporated into American schools. Kondra and Hinings (1998) provided an explanation concerning this phenomenon, that being: as long as industry standards are being adhered to by the top management, their jobs will always be safe. By replicating the apparent changes taking place in the field, educational leaders establish the reputation of reformers even if the change is new without bringing any substantial or significant effect of change (Rodman et al., 2013). The safe route for protection of jobs and even advancement in professions is taken to protect the image of 'change' even if there is no meaningful change (Pop et al., 2018). The routine following hot innovation on a yearly basis regarding teacher training, development of curricula, and motivation methods, runs a substantial risk of turning into a ceremonial event (Palermo, 2013). In a bid to break away

from leaders which cookie cutters produce, a large number of school districts have started to hire senior leaders from other professions, e.g., military leaders or political leaders such as mayors (Walter & Block, 2016). Moreover, many authors have indicated that the leadership should not forget the main drivers of the institutions therefore, the leadership should adopt effective techniques to motivate teachers and administration teams to bring the required changes within those institutions (Alfes et al., 2019; Peris-Ortiz et al., 2018; Thoenig & Paradeise, 2016; Kim, & Patel, 2017). Moreover, Brahm and Tarziján (2014) have indicated that the motivation of public service employees is quite different from that of private sector employees which is why within this thesis, the discussion will consider the public sector motivation of employees and therefore learn more about the motivation issues of employees specifically within the education sector and how to attend to them.

## 3.10 THE CONTRIBUTION OF SCHOOL GROUPS TO ORGANIZATIONAL STABILITY

Institutional theory likens the organizational structure to an onion, where formal and informal groups (including the workforce) within and outside the organisation are found in a layered pattern (Meyer et al. 1992). Scott (1995) observed that generalized beliefs, models, menus, norms, and scripts flow down through different levels carried by social construction, socialization, and sanctioning powers. These codes are carried and produced again over time and may also be reconstructed and modified over time by inventions and interpretations of subordinate actors: organizations, individuals, and fields (Della et al., 2013). The extent of conformity or fit among the layers of this onion determines the extent of stability of the organization (Tukiainen & Granqvist, 2016).

However, there are always some measures of diversity or independence at each level. For example, at the group level, all educational systems witness struggles at the inter-group level for new resources against a fixed budget regarding homework policies (Ylimaki & Brunner, 2011). Moreover, Kondra and Hinings (1998) wrote that isomorphism can have a self-serving effect for dominant coalition; if all organizations 'play by the rules' everyone consequently keeps their job; hence isomorphism provides a strong incentive not to question institutional norms. An economist may regard this as tacit collusion. In fact, this behaviour, near dominant coalition, is regarded as optimal and efficient given organizational needs (Trowler et al., 2013). But it is, nonetheless, a charge which is frequently aimed at administrators and teachers who are usually criticized for maintaining the status quo by not being more willing and inventive to challenge what outsiders regard as moribund school routines (Lin & Miettinen, 2019).

However, just as a group of schools can be protective of the status quo, they can also be dynamic in nature and want to pursue educational change. 'Hot groups' which are the high-performance teams can also emerge when a particular crisis is found, e.g., the challenge by parents about teaching evolution of human beings in biology classes or when a specific dedicated group is inspired by the challenge of taking a seemingly intractable problem, e.g., offering counselling on birth control (Harper, 2012). A major crisis can also emerge under tight deadlines and novel situations. And normal concerns can be overrun by the pressing tasks at hand concerning control and power (Wiseman et al., 2014). In a bid to restore equilibrium, the status systems and formal hierarchies are often suspended. At times of crisis, new voices may also appear and the alternatives which were previously ignored may be taken into account (Leavitt & Lipman-Blumen, 1995). 'Hot groups' are generally smaller, and strive to overcome the challenge they are facing as for them this is the greatest reward. Such groups therefore establish high standards for themselves, they live on the faith of capital, and draw on intellectual sources which were previously unknown (Roith, 2014). They generally spring up if sufficient flexibility is found in the organization to allow them sufficient independence to exercise their energy. However, invisible or visible hot groups can also emerge as a negative force with designs on deconstructing or sabotaging the organization (Berman, 2012).

## 3.11 PUBLIC SERVICE MOTIVATION

It has been discussed earlier that e-learning education systems influence performance through teaching outcomes only when there is an alignment between the interests of teachers, the administration, and the organization – only when each stakeholder perceives benefit coming from the change. Hence, the importance of the alignment of interest among all interested parties is crucial, and particularly when it comes to exploring employee motivation to implement an e-learning system in Libya's state education sector. The most used definition of public service motivation (PSM) of individuals includes the notion of an individual's predisposition to respond to motives grounded primarily or uniquely in public institutions (Nielsen et al., 2012). Those employees with a higher level of PSM are expected to be employed in public sector organizations (Scott & Pandey, 2005) and might view their employment and profession as a mission (Shou et al., 2017). They consider the serving of the general public as an ethical act and they are specifically motivated by a concern for society (Landau et al., 2016). As Jacobides and Winter (2012) observed, public service motivation has a positive association with employee outcomes like willingness to expend effort, affective commitment, performance and job satisfaction. When investigating public sector employees' job satisfaction, Ahmadjian (2016)

used PSM as a variable, finding that employees use their PSM as a lens through which to view their activities and performance and to interpret their work-based experience. The greater the alignment between employee work experiences and their work-related public service motives, the greater they are likely to feel satisfaction and enjoy other employment- related positive attitudes. Thus, it is important for the government to provide opportunities to workers, who are high in PSM, to exercise their specific type of motivation in order to increase the level of their job satisfaction (Kurtmollaiev et al., 2018).

The extent to which employees can exercise their PSM appears to have a strong impact on employee attitudes. Public service motivation-fit is a concept that has been widely studied by many researchers (Ritz et al., 2016), according to which, the environment of the workplace plays a significant role in facilitating or constraining the fulfilment of the altruistic needs of employees (Christensen et al., 2017). Using this line of reasoning, Bozeman and Su (2015) argued that a job having insufficient opportunities for employees to exercise their commitment towards the general public interest negatively influences affective commitment, willingness to expend effort, and job performance (Kjeldsen & Jacobsen, 2013). When organizations provide a work environment for employees to exercise their PSM, they positively influence the variables such as commitment and job satisfaction (Moynihan & Pandey, 2007). Public sector personnel usually view PSM as a special 'need' which should be met either by their job or by their organization (Esteve et al., 2016). Resultantly, these employees will have lower intention to leave the jobs and higher job satisfaction as opposed to employees whose PSM needs have not been met by the organization or their job. To address the question, "to what extent do employees find their work useful and valuable for society", Steijn (2008) used a PSM score to assess their PSM-fit. Vandenabeele (2007) also explored PSM-fit, finding a positive and significant contribution of this variable to the intention of quitting the job and employee job satisfaction. Kim and Vandenabeele (2010) further added that the realization of PSM needs is irrelevant to job satisfaction in the case of civil servants, as no matter how high their PSM, they strongly perceive their job to be useful for society and enjoy high job satisfaction.

In his study, Bright (2008) proposed the relationship between public services motivation and P-O fit through the development of a hypothesis (individuals' characteristics are congruent with organizational characteristics). Bright (2008) observed a higher congruence between organizational and individuals' characteristics for those employees with high PSM. Bright (2008) further added that P-O fit has a mediating impact on the relationship of PSM with turnover intentions and job satisfaction. In the same study, Bright (2008) removed congruence between individuals' and organizational characteristics from the P-O fit equation and found that

the level of job satisfaction in such cases would decrease, while PSM increased and employees would likely change jobs.

Thus, it is concluded on the basis of the above study findings that PSM has limited benefits for every type of public organization. However, an unfavourable work environment in public organizations may bring changes in PSM with the passage of time in terms of its positive consequences. This shows that the work environment plays an important role in driving the public education sector employee needs in the direction of making a meaningful contribution to public interest. These kinds of work environments are more likely to motivate and satisfy those public sector employees who are high in PSM (Pandey et al., 2012). Moreover, the extent to which employees can exert PSM also influences the relationship between PSM and affective commitment and job satisfaction. E-learning education practices refer to those practices that provide the opportunity to children to perform by establishing such environments for teachers and other employees in which they can exercise their duties; therefore, it is necessary to capitalize upon PSM to encourage the adoption of new e-learning systems in schools to deliver education to the community.

It has been observed that employees who are high in PSM could be motivated through intrinsic rewards instead of extrinsic ones (Kim et al., 2013). According to Thompson and Christensen, (2018) although employees in both the public and private sectors prefer to receive a high pay package, public sector employees consider extrinsic rewards relatively less important. On the other hand, being useful to society, helping others, and similar other intrinsic rewards are rated highly by public sector personnel as compared to their private counterparts. Finally, Thompson and Christensen (2018) concluded that economic rewards are less important for public sector personnel since they have a greater interest in intrinsic rewards in comparison with the private sector personnel. By comparing public and private sector employees in terms of their preferences towards intrinsic and extrinsic rewards, Bellé (2013) determined that intrinsic rewards such as the nature of their work hold high importance for public sector personnel, whereas extrinsic rewards such as less work hours and income are less important for them in comparison with their private counterparts. A similar comparison was conducted by Wright and Pandey (2008) who found that employees working in public sector organizations love to perform jobs that are useful, interesting and helpful in nature, and are less interested in highly-paid jobs with higher advancement opportunities. While reflecting on pay for performance (PFP) systems, DeHart et al. (2006) commented that intrinsic rewards are more important amongst public sector personnel than are intrinsic rewards in the context of HR practices. Bakker (2015) investigated the reasons behind the persistent failure of PFP systems in public

organizations and observed that the incompatibility with more powerful motivations leads to many people pursuing public service as a preferred choice right from the start of their employment career. Regardless of the above discussion however, extrinsic rewards do seem to have some importance for public sector personnel. Park and Word (2012) obtained evidence supporting the hypothesis that there is a direct relationship between salary and employee motivation in the public sector. The premise on which the mentioned hypothesis was actually based stated that the level of PSM increases with the increase in salary if employees perceive the higher salary as a reward from the organization in recognition of their contribution towards it (Park & Word, 2012). By looking at the trust-public service motivation of employees' relationships, one can argue that employees' perceptions of an organization are connected with PSM. Moreover, Park and Word (2012) observed a significant positive association between PSM dimensions and employees' perceptions of their organizations that they are actively executing the reforms (including empowerment of workforce). In addition to employees' perceptions about organizations, leaders could also influence employees' PSM through leader-employee relationships. There is another hypothesis that positive leader-employee relationships lead to an increase in the level of employees' PSM, and which received sufficient support from Kim's (2018) work to be upheld. The premise on which the mentioned hypothesis was based stated that experiencing positive leader-employee relationships makes employees feel that the organization recognizes their individual value and worth, with the result that an increase in their level of PSM is witnessed. These findings revealed that the extent to which employees perceive that their managers and organizations care for them, is positively associated with employees' PSM. They confirm that employees who are high in PSM are motivated by intrinsic rewards rather than extrinsic ones, and believe their managers and the organization generally is taking care of them. This perception is also associated with employees' trust in management and political leadership to deliver education through the new e-learning platform.

Finally, it is assumed that the individuals' own characteristics have an association with their PSM. For example, Belle and Cantarelli (2015) investigated PSM with respect to job tenure and found that PSM scores did not show and significant link between these two variables among public sector employees. And in another study by Van et al. (2015), the impact of duration of employment with an organization was studied with respect to employee motivation in public sector organizations, and a significant negative association was observed amongst both variables. Following this line of reasoning, Cho and Perry (2012) argued that if an employee serves an organization for a long period of time, it would lead to a decrease in the motivation level of that employee. But in another study, Georgellis et al. (2007) observed a positive

71

correlation between PSM dimensions and organization tenure, while job tenure did not affect the employee motivation level in public sector organizations. Cecere et al. (2014) also investigated the motivation factor of employees in the public sector with respect to education and observed that education had a significantly and negatively low correlation with motivation dimensions in the public sector. However a significant positive relationship between education and motivational dimensions was observed by French and Emerson (2014).

Summarising the above discussion, it becomes clear that the research to date mainly focuses on the attitudes of employees in public sector organizations and aims to investigate how different motivational factors are associated with performance through employee outcomes. The ability motivation, opportunity (AMO) theory indicates that organizations should provide the opportunity to employees to perform and that employees should have the necessary skills and should be incentivised (Wright & Grant, 2010). Therefore, the AMO theory can consider both intrinsic and extrinsic types of motivation to facilitate the e-learning education system in Libya (Figure 3-2).

Based on the assumption that practices provide the opportunity to employees to perform and increase their abilities and motivations; it is argued that these outcomes can only be attained when the interests of an organization are aligned with the interests of individuals (Miao et al., 2015). Lin (2007) indicated that the opportunity to learn and increase the ability of employees to adopt change is an intrinsic motivation factor that can encourage employees. Moreover, Ramirez et al. (2019) explained that the extrinsic motivation includes the organizational polices, money, working environment and job security while intrinsic motivation includes the learning, skills development, opportunity for personal growth, autonomy and an interesting job.
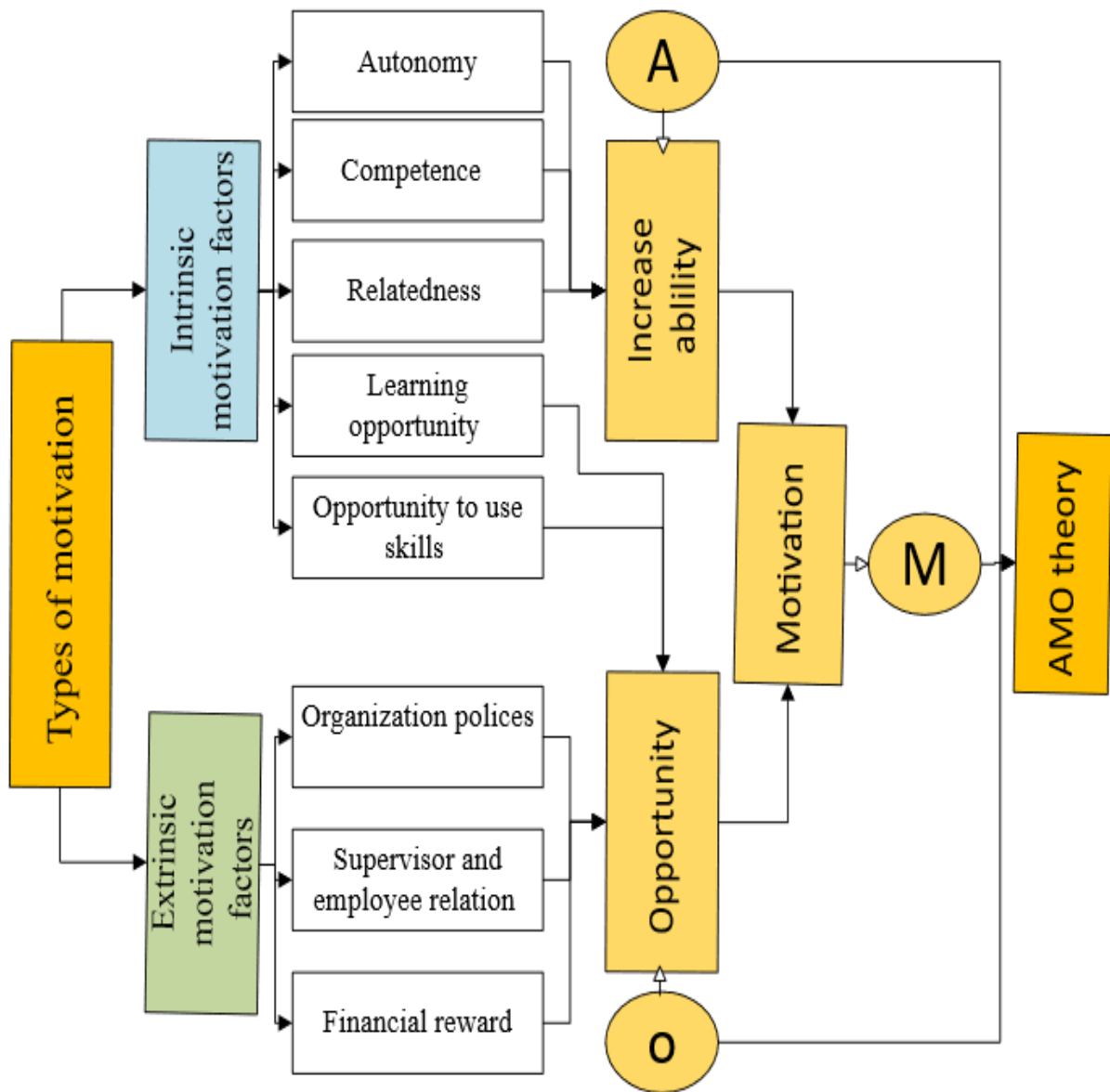
*Figure 3-2: Types of motivation in public services*

Perceiving e-leaning practices to be the best way forward for administrators and teachers leads to improvements in the attitudes of those people (i.e., job satisfaction, affective commitment). But it is also important to explore the perceptions and attitudes of teachers and administrators towards the e-learning system so as to develop the optimal motivational approaches for teachers and administrators in Libya. This is why the AMO theory is being selected for the theoretical framework of this research. Additionally, this theory helps to understand teachers' motivational level, their ability to adopt the e-learning system in Libya and take opportunities to successfully deliver it. As the major purpose of this research is to introduce the new e-learning system and curriculum in Libya which will represent innovation in public institutions, there is a need make use of institutional theory in the context of change management in education.

# 3.12 INSTITUTIONAL THEORY AND EDUCATIONAL CHANGE

Institutional theory represents that body of thought, which identifies, explores, and emphasizes the forces which limit organizations from changing. In the field of education, the result is to have developed greater understanding of the isomorphism of the educational system (homogeneity) and the common criticism that change often only appears as such and doesm't bring any substantial change (Chan, 2019). What is essentially missing in the discussion is that there may arise a change in educational systems, that may not be as drastic as advocates of change want to see, but it remains a change (Pöyliö et al., 2019). Navigating through these possibilities, there are at least three energizing forces which influence organizational change. These forces are found in the external environment of the educational system (Zhang et al., 2014), and include environmental shifts, environmental shocks, and environmental regression. Environmental shifts take place when one or more of the organizations in the education organizational field modify some requirement or expectation concerning the school, e.g., implementing a new court decision, or implementing the change introduced by the state in the testing procedures (Finelli et al., 2014). Although new environmental requirements and expectations are no less important, they are nevertheless incremental in nature and resultantly the changes that arise are also piecemeal in nature (Harris & Ellis, 2019).

There are five strategies identified by Oliver (1991) which are used by the organization for accommodating environmental shifts needing attention. For example, in the instance of introducing the high-stakes test, the school can do what is expected (acquiesce), introduce a modified version of the test (compromise), delay and hope it does not arise again (avoid), argue that the test is culturally insensitive and ideologically tainted (refuse), or teach the test (manipulate) (Oliver, 1991). A casual reading of the newspapers shows that all such strategies are alive in the US education system. The second type of change, environmental regression, takes place when (metaphorically speaking) the apple falls too far from the tree. This is when the organization's activities are so far from the acceptable standards that questions about its legitimacy arise (Oliver, 1991). In such an instance, environmental pressures are exerted on the institution to bring it into line with the standards acceptable in the society, the result being that the institution becomes homogenized. Schools may be pressured to align themselves with certain standards thereby making them look like other schools (Frolich, 2013). Kondra and Hinings (1998) addressed this type of change by highlighting two categories of organizations: dogs and renegades. Dogs are organizations which possess low fit with the norms of the institution and whose performance is lower than the institutional standards. As such, they are

at risk of drop out as their failure to adhere to the declard standards remove their legitimacy. Renegades are organizations that use unorthodox standards to perform beyond the standard practices (Glazer et al., 2014). There are few change-related options available to guardians of institutional norms such as courts, legislatures, and accreditation agencies. For instance, the guardians may use coercive means to ensure compliance with institutional standards, but might also legitimize renegades to mimic their activities to ensure better performance among other institutions (Bray & Russell, 2018; Tak et al., 2017). A third type of organizational change may be ascribed to environmental shock, which as noted by Powell and Solga (2010) is the condition whereby change in the external environment of the educational system goes beyond the incremental adaptations that can be made by the schools. When organizations are highly inflexible and institutionalized, they become vulnerable to environmental shock (Schubert et al., 2016). The classic illustration in this regard is the French Revolution during which the French state with its emphasis on the privilege of institutions and class violently clashed with new social order (Oliver, 1991). The resulting change witnessed the destruction of the old state and the rising of a new one. In the current private sector, such environmental shocks have repeatedly influenced the consumer electronics and automobile industries, recently with new brands emerging to the top and others crashing without recourse (Oliver, 1991).

The education field has witnessed different profound environmental shocks, all of which have changed schools forever. Environmental shocks can arise through dramatic technological changes, e.g., the introduction of the handy calculator, the advent of the internet and the innovation of computers into laptops, changes in the laws such as the 'separate but equal' configuration of US schools following the decision of Supreme Court in Brown v Board of Education, or changes in public awareness, e.g., those brought about by TIMSS (Third International Mathematics & Science Study) and 'A Nation at Risk' National Commission on Excellence in Education (1983) which showed that US students were ranked among the bottom ones when compared with students from 21 different countries (US National Research Centre, 1998). When a strong environmental shock takes place through our education system, the institutionalized forces which previously held schools to the status quo become weakened and major changes arise (Russell, 2011). Such weakening of the forces becomes apparent when public confidence is shaken by shock. There are two historical examples which stand out. The first are the educational reforms which took place during the Vietnam War and during the mid-1990s when the politicians realized that teacher-bashing, and education-bashing could lead to victory in elections as such slogans won the emotional sentiments of people (US National Research Centre, 1998).

The second was during the Vietnam War when the confidence of the public in the 'system' hit the biggest low since the 1930 depression, schools were liberated to try wild approaches in organization and management, curriculum, school design, and elsewhere in a bid to introduce innovation and creativity (Sommers, 2002). This led to several changes such as schools without walls, open space schools, schools within schools, unstructured time schedules, daily demand schedules, schools without administrators, career ladders, student-designed curricula and ungraded schools. When society stabilized following the end of the Vietnam War, the educational system also started to show signs of stability. Immediately afterwards, a familiar rhetoric was heard once again: accountability, back to the basics, academic standards, administrative controls, school discipline (Rohweder, 2015). This meant that after a few years of relaxed limitations due to the drastic change, the educational system was re-institutionalized to deliver the school education system to the children. Therefore, it is very clear that there is also a need to re-institutionalize the Libyan education system to deliver school education to children, and this can be done via an e-learning curriculum. for the school children. Following the discussion of the institutional context, there is also a need to understand the technological perspective because this is germane to the effectiveness of e-learning as an alternative to the traditional education system during the conflict period in Libya. Therefore, the next section considers the issue of technological adoption, which also appears in the theoretical framework for the study. In this respect there are two major theories to consider.

## 3.13 TECHNOLOGY ADOPTION THEORIES

Different studies have referred to the utilization of the Technology Acceptance Model (TAM), in the successful implementation of a new system or technology in an organization (Chang & Tung, 2008; Jan et al., 2012; Ong et al., 2004; Tselios et al., 2011). And the literature extensively cites the significance of two TAM-related factors, these being: the perceived convenience in using the technology, and the perceived usefulness of e-learning technology in formulation and implementation (Kanwal & Rehman, 2014; Chang & Tung, 2008; Tselios et al. 2011; Masrom, 2007). These factors are both highly relevant and significant as they are helpful in generating awareness, motivation, confidence, and intention to use the e-learning technology. Ong et al. (2004) contributed towards this literature by adding another dimension, that of perceived credibility, and at the same time they highlighted the significance of computer self-efficacy as this helps in developing the intention among teachers and students to use e-learning technology. Chang and Tung (2008) combined two concepts regarding e-learning technology: TAM, and Innovation Diffusion Theory (IDT), proposing an extended TAM model

by using the elements of IDT in TAM. They highlighted various factors concerned with the adoption of e-learning technology such as the perceived ease of use and usefulness, compatibility, intention and behaviour to use e-learning technology, computer self-efficacy, perceived system-quality, and beliefs of the learner (Ong et al., 2004).

Researchers have used the self-determination theory (SDT) to check the impact of motivational factors on the TAM specifically in e-learning technology. Furthermore, they have stated that various beliefs relating to perceived competence and autonomy support, perceived usefulness and relatedness, intention to playfulness, and ease of use are important predictors of whether successful implementation of e-learning technology can be achieved (Roca & Gagne, 2008). Similarly, researchers have reported that self-efficacy and perceived usefulness must be properly assessed before attempting to introduce e-learning technology (Liaw, Huang & Chen, 2007). Another study has explained various factors that can positively and negatively influence the implementation of e-learning technology including the instructor and student behaviour about e-learning, computer anxiety, complications and ease of assessments, ease of the e-learning course, and course quality (Sun et al., 2008). Intention, attitude, and behaviour are more important elements that are widely described by using the TAM in an e-learning setting (Roca & Gagne, 2008; Liaw, Kanwal & Rehman, 2014; Masrom, 2007; Tselios, Daskalakis & Papadopoulou, 2011). An individual's attitude may be favourable or otherwise towards e-learning, and in this respect the TAM relies on the variables of perceived ease of use and usefulness that have been derived from the theory of planned behaviour and the theory of reasoned action to measure such attitudes.

Chang and Tung (2008) found that the factors affecting the adoption of e-learning technology are the perceived ease of use and usefulness, compatibility, intention and behaviour to use e-learning technology, computer self-efficacy, perceived system-quality, and learner beliefs; these are issues that generate the attitude towards whether learners will use e-learning technology. However, the level of support and understanding to formulate and foster e-learning technology and innovation varies across organizations, sectors, nations, and cultures. And at the moment, the literature documents that most of the research about the TAM and e-learning have been conductes in the developed and growing economies in western and eastern countries (Tselios, Daskalakis & Papadopoulou, 2011; Jan et al., 2012; Roca & Gagne, 2008; Liaw, Kanwal & Rehman, 2014; Masrom, 2007; Tselios, Daskalakis & Papadopoulou, 2011), meaning that responses in under-developed countries are not comprehensively known, but it is the case that such countries, like Libya, have diverse cultures due to bureaucratic culture, power, influence, politics, language barriers, and different attitudes towards the adoption of new

technologies and ideas. Therefore, there are many other factors which must be considered in these environments, such as the availability of finance and teachers, the training given to teachers and students, the readiness of government to support electricity and internet supply so as not to interrupt e-learning delivery, and the availability of computer labs especially in those countries which are surviving in violent conflict situations.

## 3.13.1 Diffusion of Innovation

All innovations must be effectively diffused if the recipients of the new technology are to become aware of it and be persuaded of its usefulness. In this respect, the Diffusion of Innovation (DOI) theory provides the approach of knowing how, what, why, and at what rate new technology and ideas are spread through cultures operating at firm and individual levels. In the context of the DOI theory, the innovation is communicated through different channels over a period of time and in a specific social system (Rogers, 1995). Individuals are regarded as having a certain degree of willingness to adopt innovation, and therefore it is generally believed that over time a certain proportion of the population will be willing to adopt technology (Rogers, 1995). Breaking this normal distribution into segments results in five categories of individual innovativeness (earliest to latest adopters): innovators, early adopters, early majority, late majority, and laggards (Rogers, 1995). In organizations the process of innovation is complex, generally involving various individuals including supporters and opponents of innovation, each of which has a significant role in decisions related to innovation. On the basis of the DOI theory at the level of firm, Rogers (1995) pointed out that innovativeness is related to different variables which are independent such as individual characteristics, internal characteristics of the organization, and external characteristics of the organization (Figure 3-3).
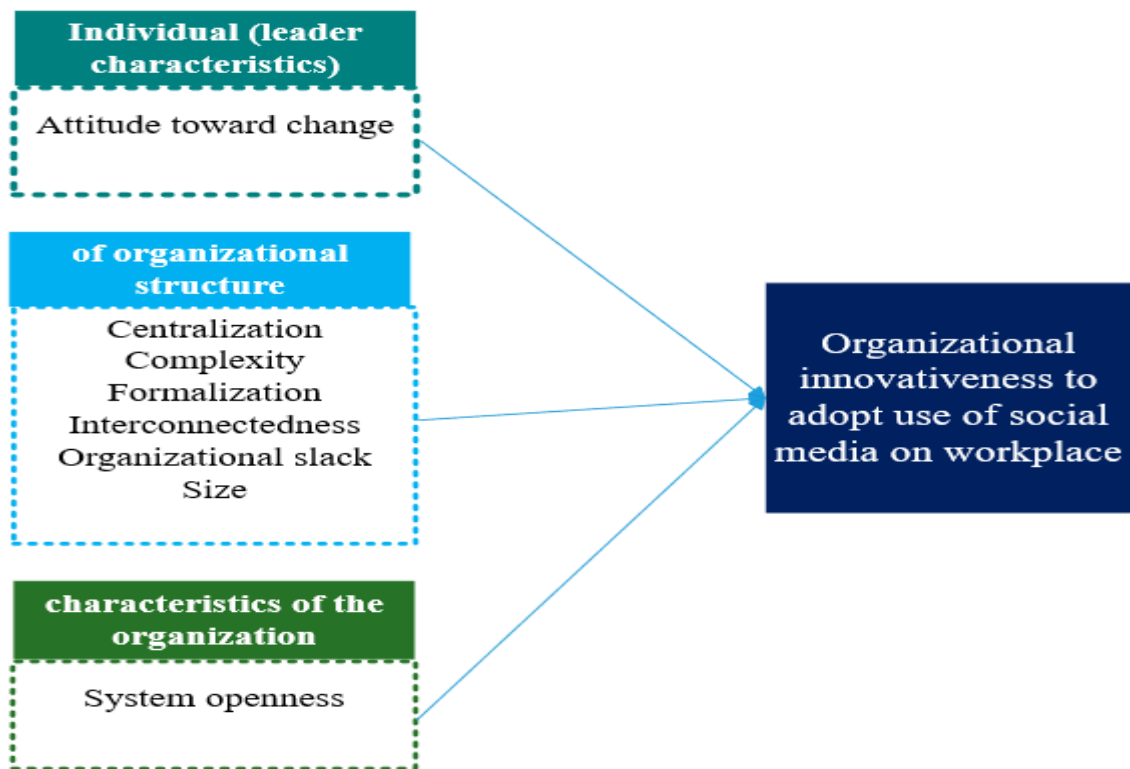
*Figure 3-3: Diffusion of Innovation (DOI): Source: Rogers (1995)*

The internal characteristics of the organization include elements such as: centralization, complexity, formalization, interconnectedness, organizational slack, and size. Centralization represents the extent whereby control and power in a system are connected within the hands of a few individuals (Min et al., 2017). Therefore, the DOI theory can be helpful in understanding the impact of centralization, complexity, formalization, interconnectedness, organizational slack, and size on the public school education system of Libya, and thus be helpful in promoting the adoption of an innovative solution to the lack of schooling during Libya's post-conflict period. Additionally, the DOI theory also indicated that the complexity represents the extent to which organizational members possess high levels of expertise and knowledge (Iles et al., 2017) which are required for the implementation of the new e-learning system and curriculum in schools. According to the DOI theory, formalization represents the degree to which organizational members must follow procedures and rules. Interconnectedness represents the extent to which the units of a social system are related to interpersonal networks (Bishop et al., 2010; Iles et al., 2014). Organizational slack represents the extent to which the uncommitted resources are available to the organization. And size represents the total number of people in the organization's workforce (Figure 3-3; Rogers, 1995; Zhou, 2008). Zhou (2008) indicated that there are some external factors including the availability of skills, government regulations and infrastructure, that are extremely important in the adoption of new technology in an organization. This is a major limitation of the DOI theory which is why the TOE context is also being considered for the theoretical framework of this research.

### 3.13.2 Technology, organization, and environment context (TOE)

The reasons underlying conflict can be the abuse of human rights, historical resistance, and socio-economic marginalization (Spassov, 2014). Through the use of social identity theory, it is possible to establish the aims of the violent conflict in the context of ethnicity, colour, background, religion, social status, and employment status. In the case of Libya, many armed groups identify as rivals of each other and have competed to maintain their self-esteem (Herriot, 2014; Vandewalle, 2018). Indeed, several groups are fighting in Libya to assert their identity such as the LNA, Tebu, Tuareg, GNA allied forces, Islamic State forces, and various other unknown groups (Fetouri, 2016; Vandewalle, 2018). Hostility and competition among groups is thus not only an issue of division of resources but also that of fighting for the assertion of individual group identity. For example, armed groups have occupied and controlled the public infrastructure including oil fields, buses, school buildings, water and electricity infrastructure in Libya (Elabbar, 2016; Fetouri, 2016) in an effort to show their power, control and social identity, and to confirm their right to control resources across the country. The central focus of conflict theory is the unequal distribution of power and resources (Demmers, 2014).

As aforementioned, these armed groups have controlled the overall public infrastructure for their own use. And as documented by Vandewalle (2018), due to the lack of political consensus and lack of conflict resolution mechanism there are two parallel violent conflicts taking place in Libya, between the eastern and western groups. The secondary school education infrastructure has been completely damaged due to the actions of the groups to prove their social identity, power, influence, and control over public infrastructure. One such action has been the recruitment by these armed groups of many young students who are encouraged to fulfil their personal objectives. Furthermore, many residents of the cities affected by these conflicts have migrated to other places seeking safety and security. Therefore, it is important to discover how the education of secondary school students can be restarted and how to provide easy, safe, secure, and flexible learning platforms for them.

Technological innovation and technology strategies are the main strategic resources for gaining advantage, success and survival in the competitive world (Jan et al., 2012), and increasingly, technological innovation is recognized as one of the key factors that can distinguish developed countries from developing ones (Kanwal & Rehman, 2014). The efficient and effective utilization of ICTs is one of the most critical components of any strategy designed to generate successful intention to adopt and use technology among students and teachers in educational institutions (Chang & Tung, 2008; Kanwal & Rehman, 2014). Due to the advent and rise of

internet technologies, e-learning is one of the most acceptable ways to provide education and one that allows school schedules and priorities to be met (Kanwal & Rehman, 2014). Schools and Higher Education Institutions (HEIs) are frequently attempting to integrate this technology within traditional classroom teaching. Indeed, it is able to offer many teaching, learning and training opportunities without any geographical limitations. However, it is found that many universities and schools cannot succeed because they are unable to identify the right selection of technologies at the right time and the competitive positions after the adoption of that technology (Kanwal & Rehman, 2014; Tselios, Daskalakis & Papadopoulou, 2011). Therefore, the present study explains what factors must be considered before the formulation and implementation of e-learning technology in a developing country.

In 1990, the TOE framework was developed by Tornatzky and Fleischer. It identified three aspects of organizations which influence the process of adopting and implementing the technological innovation. These were: organizational context, technological context, and environmental context (Figure 3-4). The technological context represents the external and internal technologies pertinent to the organization involving the internal equipment and current practices of the organization (Starbuck, 1976) as well as the external technologies which are available to the organization (Khandwalla, 1970; Thompson, 1967; Hage, 1980). Organizational context represents the descriptive measures regarding the scope, size, and managerial structure of the organization. Environmental context represents the area of business of the organization such as its industry, dealings with governmental and non-governmental bodies, and its competitors (Tornatzky & Fleischer, 1990).
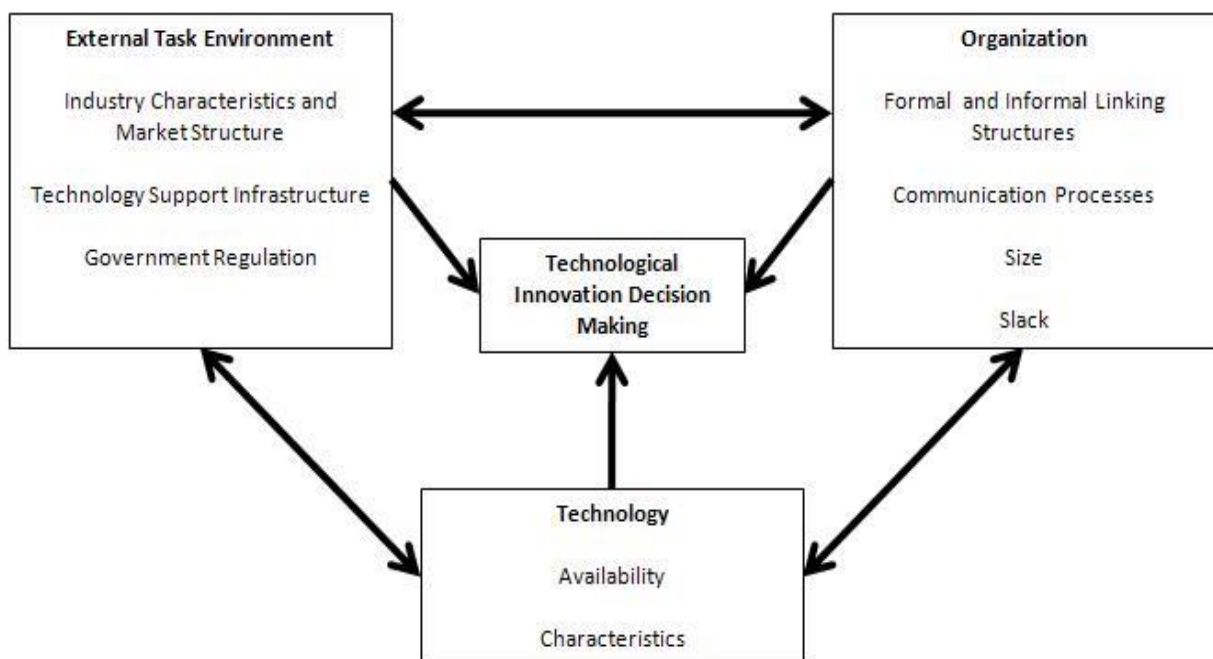


*Figure 3-4: TOE framework:  Source - Tornatzky and Fleischer (1990).*

# 3.14 THEORETICAL FRAMEWORK

Conflict theories explain how violent conflict takes place in a society, how it begins, and its detrimental consequences for the public and the government.These theories have highlighted how violent conflict can precipitate unequal distributions of power and resources, human rights abuse, historical resistance, and socio-economic marginalization in any society. Various conflict theories that appear in the literature highlight how violent conflict can damage infrastructure, education, health, economic development, employment, and the basic human rights of residents. After reviewing the violent conflict in Libya, the present study describes how the seven years long conflict has damaged the school infrastructure, time in school, and learning opportunities of secondary school students. Public schools have closed in major cities and students and teachers have suffered for seven years. The conceptual framework shows how this long violent conflict has negatively influenced the school structure, public infrastructure, time in school, resources, ICT, motivation and behaviour of students. It also highlights that e-learning is a solution for the interruption to secondary school, which can be implemented after developing ICT, motivation, training, and required skills for e-learning. The present study has discussed various research studies showing that the recovery period may take as long as 25 years, and that in this period when the nation's infrastructure is being re-develop, e-learning is a quick and safe solution because it offers flexible hours, a safe and secure learning environment, a lower level of tuition fees, and does not involve transportation expenses.

It is seen in the literature how violent conflict can influence educational efforts in developing countries, but the nature of, and power dynamics involved in violent conflict have different social, economic, infrastructural, educational, and cultural effects vary among situations and countries (Cremin & Guilherme, 2016; Cohn, 2013; Pherali, 2016; Hojbotă et al., 2014; Zack-Williams, 2012), meaning that the intelligence obtained from previous studies undertaken in different cultural, social, local, economic and political environments cannot be generalised to all settings. For example, Akbulut-Yuksel's (2014) observation of some countries requiring a period of 20 to 25 years to rebuild public infrastructure, suggests as noted by other researchers (see Cohn, 2013; Pherali, 2016) that a whole generation can be illiterate and unproductive. The present study aims to compensate for the challenges of re-building the current infrastructure and address the need to bring an alternative education system as a long term and durable solution to this problem. Moreover, Akbulut-Yuksel (2014) stated that there is no guarantee that violent conflict will not recur in the same country, thus making it imperative to construct strategies that can work in uncertain situations. As shown earlier, the public infrastructure in Libya's southern cities requires complete re-construction which is not possible in a short time.

Furthermore, people are striving to find the basic human needs (food, water, and health facilities) and are neither ready nor motivated for education. Many cities are also overcrowded and suffering from high crime rates and poverty in their post-conflict state. Any many families have witnessed murder and kidnapping and are thus afraid to send their children to school. It is not easy to regain the motivation for school attenence, especially when many have lost their beloved family members. It is also found that while some private schools are functioning, the majority of people are living in poverty with many living in temporary shelters, so they are unable to afford the expensive fees of private schools. Compounding the problem is the fact that many teachers have migrated and started other jobs for their survival, and that children have spent many years in child labour as well as being away from education.

Some of the previous studies which focused on violent attacks on schools have suggested the introduction of an interim curriculum (Cremin & Guilherme, 2016; Pherali, 2016; Hojbotă et al., 2014), but this suggestion is unworkable in Libya because school buildings have themselves been destroyed and as previously mentioned there has been migration and a general apathy towards education as financial and basic survival concerns have taken priority. In such post-conflict contexts, e-learning may well emerge as the best alternative method for secondary school education, but there is no literature to confirm that. Hence, the present study has highlighted how e-learning provides an appropriate alternative method of education because it can engage the maximum number of dispersed students, requires no transportation or physical environment, minimizes the uncertainty in moving from home to school, is able to offer flexible hours, and is able to engage teachers and other human capital from different locations. This study engages the major stakeholders of secondary schools to secure evidence about the exact damage and what initiatives and awareness are needed to recover education for secondary level students. It determines from the involvement of stakeholders how supportive the current infrastructure is of class-based education and an e-learning system. This is important given that the majority of previous studies comment on the lack of vision possessed by political and educational leadership regarding the recovery of education, as the priorities are focused on providing basic human needs.

The current study has provided a research framework underpinned by various theories with the purpose of introducing an e-learning system as an alternative method in the aftermath of violent conflict. This framework is developed based on four theories. The first two theories (i.e., institutional and AMO) address the needs of institutional and individual perspectives while other two theories (DOI and TOE framework) address the needs of technology. Institutional theory is known to facilitate institutional/educational change through three different forces that

are known to play a role in either supporting or hindering the desired change. These forces are: isomorphism, normative isomorphism, and coercive isomorphism, and with an understanding of these it has been possible to understand the influential factors being brought to bear on the implementation of an e-learning system, and indeed to develop interview questions through which to gain rich insights. These three forces provide details of how legitimate power, political leadership, government planning and support, professionals, social and cultural factors can influence the institutional environment when introducing the e-learning system. Furthermore, this theory provides detail regarding how the current infrastructure can be supportive or unsupportive of introducing an e-learning system for post-secondary school education in Libya (Figure 3-5).
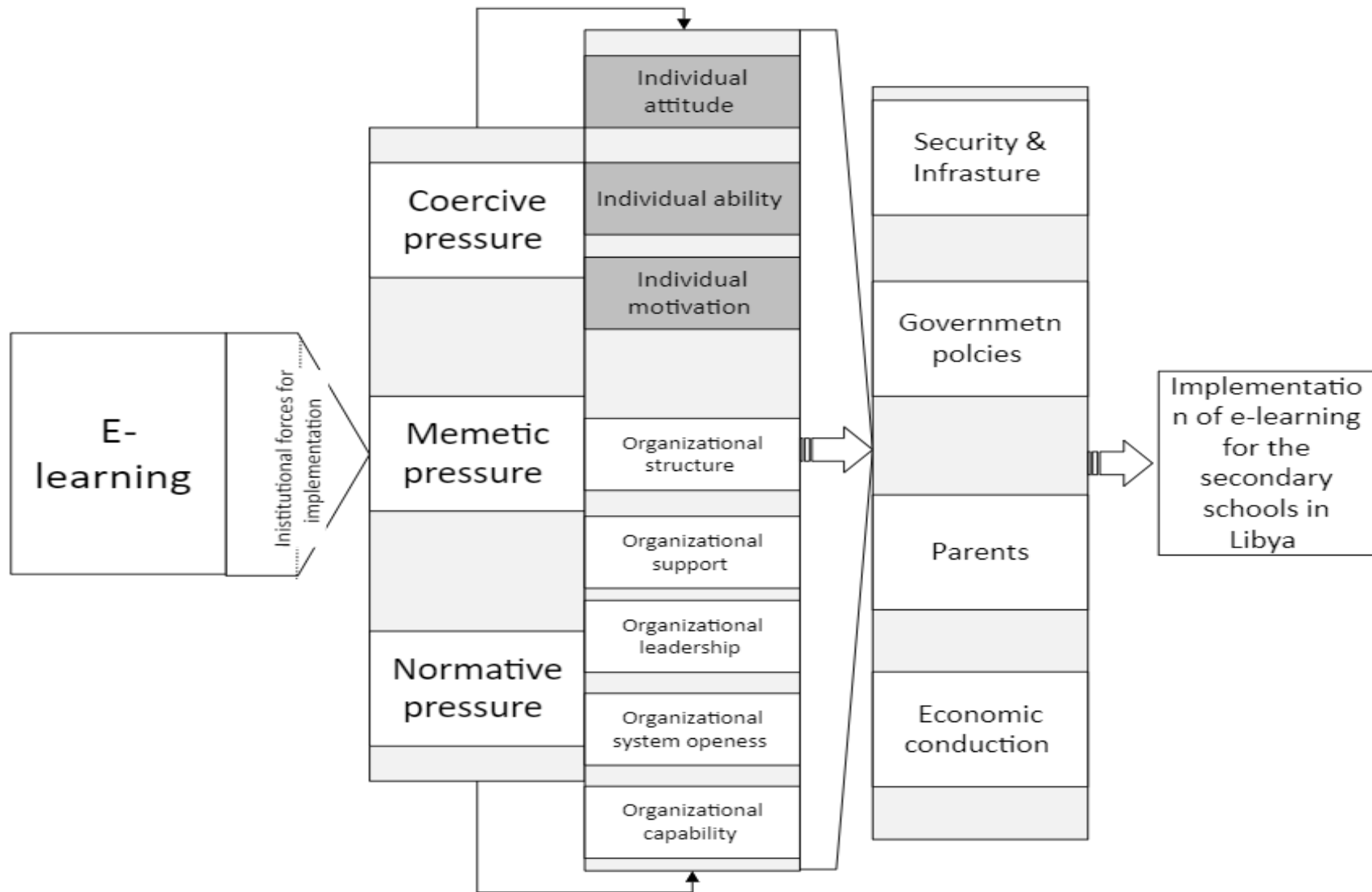
*Figure 3-5: Theoretical framework*

The three factors of AMO (ability, motivation, and opportunity) represent the employee skills, abilities, financial and non-financial benefits, other motivations and opportunities that are helpful in creating a supportive environment for an e-learning system in post-conflict secondary schools. The AMO theory prompts the researcher to assess whether the skills and capabilities of employees for a new educational system are present, and to determine which factors can provide social and personal motivation for these employees. It can also establish the benefits and opportunities of a new educational system and how aware and motivated stakeholders are to adopt this system. For example, it is found that teachers require IT training and development to effectively use the e-learning system in the post-secondary school environment, and that the current curriculum is not vey suitable for a straightforward technological deliver, and as such is unable to address the needs of both teachers and students. Therefore, more efforts are required to develop and advance the curriculum and encourage the involvement of national and international professionals in the area of nline education systems. The DOI theory helps with understanding the role of leadership and other forces in the deployment of technology (i.e., e-learning system) in the public organization setting.

To conduct this comprehensive study, the theoretical framework is developed with the help of institutional theory, AMO, DOI and TEO theories. According to institutional theory, three mechanisms exist which push oganizations to homogenization. Coercive isomorphism stems from compliance pressures which could be formal or informal in nature when implemented on the e-learning education in Libya. This isomorphism describes the professionalization process in which the codes, values and standards are devised and imposed upon schools by accrediting institutions and agencies to implement e-learning in Libya. However, intense under-developed countries like Libya have diverse cultures and other factors must be assessed. The AMO theory improves the understanding of individual ability and attitude towards e-learning and helps to promote the belief that e-learning practices are in the best interests of the administrators and teachers, as it improves their attitude, job satisfaction and affective commitment. It is also important to explore attitudes towards e-learning as that would help develop the optimal motivational approach for teachers and administration in Libya. This is the reason for selecting the AMO theory for the theoretical framework of this research.

TOE provides a useful framework for analysing the adoption of different IT innovation types. There is also wide potential in the innovation domain through particular elements identified in the three contexts which may differ across studies. This framework is in line with the DOI theory in which emphasis is placed on the individual characteristics and both external and

internal characteristics of the organization being drivers of organizational innovativeness. These are similar to the technological and organizational context of the TOE framework, but the framework also involves the important and new component of environmental context. Therefore, both the TOE and DOI theories are included within the theoretical framework of this research. The environmental context presents the opportunities and constraints brought by technological innovation in respect of launching the e-learning education system in Libya. The TOE framework theory aids the innovation diffusion theory of Rogers in explaining the innovation diffusion within the public education system of Libya.

## 3.15 SUMMARY

Various conflict theories that have been discussed have highlighted how violent conflict can damage infrastructure, education, health, economic development, employment, and the basic human rights of residents. After reviewing the information available on violent conflict in Libya, the present study has described how the seven year long violent conflict has damaged the school infrastructure, time spent in education, and the learning opportunities of secondary school students. Due to the maintenance of social identity, control, and power, armed groups in Libya have recruited many young students to join their armies, and swell their ranks, and through their violence, the infrastructure of secondary school education has been completely destroyed. Public schools have closed in major cities and students and teachers have been suffering for seven years. The seven year long violent conflict has negatively influenced the school structure, public infrastructure, time, resources, ICT, motivation and behaviour of students. The given conceptual framework has highlighted that e-learning is a solution to the problem of the educational gap in children's lives, but that its implementation requires the development of ICT, motivation, training, and the required skills for e-learning. Given that the recovery period may continue for many years, a safe environment for education must be found, and e-learning offers this through flexible hours, the ability to remain in one's own home, the benefits of security and the absence of transportation expenses. Additionally, it may be managed with fewer administrators and teachers than are needed in class-based education.

| | |
|---|---|
| **Research Introduction** | **Brief** |
| | ·Secondary school education infrastructure has been completely damaged due to proving the social identity, power, influence, and control on public infrastructure. |
| **Conflict Impact on Education** | ·Public schools have shut down in major cities and students and teachers are suffered for seven years. |
| | ·The eight years long violent conflict negatively influence the school structure, public infrastructure, time, resources, ICT, motivation and behaviour of students. |
| **Literature Review** | |
| **Case Study** | ·Learning is quick and safe solution because it offers flexible hours, safe and secure learning environment, lower level of tuition fee and transportation expenses, lower level of administration and teachers strength compared to class-based education. |
| **Research Methodology** | |
| **Analysis and Results** | **Outcomes** |
| **Discussion** | ·The given conceptual framework has highlighted that e-learning is a solution to address the educational gap of students but after developing ICT, motivation, training, and required skills for e-learning. |
| **Conclusion** | |

*Figure 3-6: Thesis progress*

# CHAPTER 4 RESEARCH METHODOLOGY

---

This chapter presents the philosophical underpinnings of the research, the overall methodology and details of the precise methods used. It also indicates how the research was conducted.

---

## 4.1 INTRODUCTION

Easterby-Smith et al. (2015) observe ontology to be the starting philosophical position when planning a research study (Figure 4-1). From that point, they move to consider epistemology, noting that in the context of research, a debate concerning the two is unavoidable (Easterby-Smith et al., 2015).
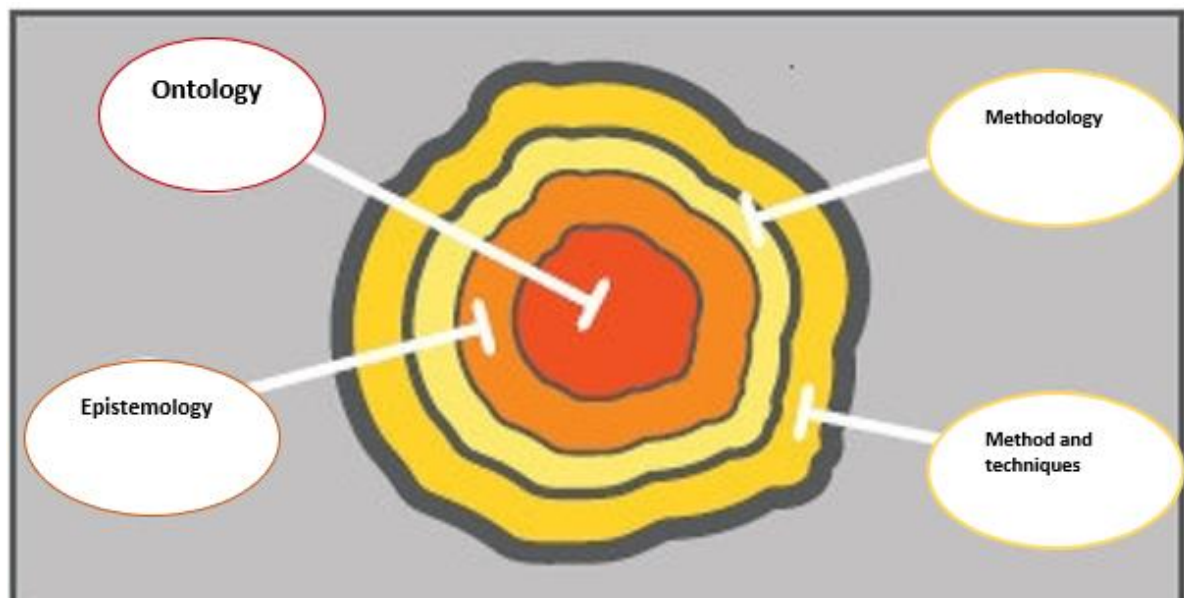


*Figure 4-1: The Research Onion: Source: Easterby-Smith et al. (2015)*

This debate is often narrowed down to choosing between interpretivism or positivism (Guba & Lincoln, 1994, cited in Donley, 2012). Questions of the overall methodology come after decisions about ontology and epistemology. However, having to choose between one position may be unrealistic in practice (Crowther & Lancaster, 2012); Table 4-1 describes these three philosophical terms.

Easterby-Smith et al. (2015) argue that the selection of an appropriate ontological an epistemological position is the outcome of the researcher's own values as they apply to the research topic in hand. Those values are represented in the researcher's axiological position.

It is also important to consider the role of pragmatism in research which considers that there are various ways in which reality can be interpreted and that an entire picture cannot be constructed by a single poin of view (Walliman, 2010). This means that there can be multiple realities (Cohen et al., 2017). These ideas are now discussed before reaching a justification for the ontological and epistemological position for the current study.

*Table 4-1: Mythological terms*

| Ontology | Philosophical assumption about the nature of reality |
|---|---|
| Epistemology | "A general set of assumption about ways of inquiring into the nature of the word". |
| Methodology | "A combination of techniques used to inquire into a specific situation". |
| Methods and techniques | "Individual techniques for data collection, analysis etc". |
| Source : Easterby-Smith et al., 2015, p.47) | |

## 4.2 AXIOLOGY

Axiology represents a branch of philosophical that takes account of judgements around values. Though this may encompass values relating to aesthetics as well as ethical fields of enquiry, it also pertains to the process of social enquiry (Easterby-Smith et al., 2015), which is the focus of this study.

Axiology is important in connection with the credibility of research results, since the reseracher's innate values are invoked in all phases of the research process (Howitt & Cramer, 2017). Heron (1996, cited in Saunders et al., 2009) note that values provide the guiding reason to all human action, and that researchers exhibit axiological skill by expressing their values as evidence to make judgements about the type of research they are undertaking and how they will accomplish it.

A thought-provoking indication that emerges from Heron's (1996) arguments on axiology is the probable capacity to write an individual statement about personal values concerning the area under investigation.

Consequently, this is advice researcher taken seriously and here acknowledge that reseaher has a personal interest in contributing to the growing effort to offer an alternative to traditional education in bricks and mortar buildings for secondary school children. As an individual born and raised in Libya, and having witnessed the start of the conflict there, I understand the cultural, social and pollical underpinnings underlying the data, and researcher has sympathy with the plight of young people whose right to education has been taken away from them.

## 4.3  ONTOLOGY

According to Easterby-Smith et al. (2015), ontology is the first point of philosophical debate, while Saunders et al. (2009) argue that epistemology is the starting position. In this study I follow the Easterby-Smith et al. (2015) opinion because the research onion introduced by Saunders et al. (2009) combines subjectivism and objectivism with epistemology.

Ontology deals with nature and its allied element of social reality (Tracy, 2013), the way things occur, the conditions in which they exist and the associations among these things (Walliman, 2018).  Ontological theories have a tendency to split into two mutually opposite and exclusive groups, relativists and realists who always remain in disagreement (Quinlan & Zikmund, 2015). A clash between the two stances is seen relating to issues of scientific knowledge and its social construction, and truths. The relativist believes that the reality is negotiated, whereas in contrast, the realist regards this as 'ontological vandalism' believing instead in the irrefutable solidness of reality (Teater et al., 2017).  Relativism and realism may be classed as two polarized aspects in a continuum between objective reality and multiple reality (Pickering & Griffin, 2008). However, both positions can be challenging for a qualitative researcher. If the realist position is adopted by the researcher, it would ignore the way interpretation of results is constructed and would assume that reporting to be a true statement of knowledge (Keady et al., 2012). If a relativist position is adopted, however, that would lead to the conclusion that nothing can ever be definitely known and that realities are multiple in nature and as such no single reality has precedence over the other about the true representation of a social phenomenon (Hesse-Biber, 2010).

### 4.3.1  Realism and Relativism

Contemporary philosophy argues that realism is the most hotly debated area. Realists raise the argument that both the natural and social world exist independently of human actions and observations. This reality is measurable objectively by controlling our personal biases and

overcoming methodological limitations (Saunders et al., 2016). Language builds our world view as realists like Gregory (2003) unveils, considering reality as something going on around us. Beneath this debate, a question arises about the existence of reality and its accessibility independent of our actions to delineate it (Newby, 2014).

The ontological realist position is not being taken by the researcher because the nature of reality when offering e-learning in a post-conflict recovery period is not singular in nature, the effectiveness of the learning differs with changes in the circumstances. Therefore, the researcher believes that e-learning as an alternative to traditional education in secondary schools cannot be exported from any other country in the western or eastern world as it would not be effective. According to Collins and Halverson (2018), e-learning culture is also referred to as just-in-time learning culture, where learners can access their learning materials flexibly when resources like computers and the internet become available. Moreover, Roschelle et al. (2017) found the attitude of today's learners towards the traditional methods of teaching and learning to have become more challenging. Further, the effectiveness of e-learning is not the same in every part of the world which is why the position of ontological realism is rejected for this research study.

Ontological relativism, on the other hand, holds that people define social class and racial discrimination differently in view of their experiences, which depend upon their inherent classes and the countries to which they belong. Hence, reality does not exist in solitary form which is liable to be discovered, but is rather engulfed by many perspectives (Cohen et al., 2011). The relativist takes the position that different viewpoints are floated by different observers as Collins (1983:88, cited in Saunders et al., 2009) states: "what counts for the truth can vary from place to place and from time to time". Relativists further assume that the external world around us does exist in our thoughts and it does not exist free of our insights or structure of thought, leaning towards the extreme positions of relativism (Jones & Forshaw, 2012). Therefore, the researcher is taking the stance of ontological relativism in this research study as it is clear that the nature of post-conflict recovery of Libya's infrastructure will change with the passage of time, aligning with the ontological position.

A tension between realism and relativism would arise if it were to be asserted that the social world is constructed by the researcher instead of being represented independently by him. This would give rise to tension between both approaches (Skinner et al., 2015). An increased tendency exists in qualitative research to adopt the relativist position, causing Hammond and Wellington (2013) to question the usability of findings generated from researchers utilizing this

method as each account of the findings can claim authenticity, even if results do not match with each other (Jones & Gratton, 2015).

If all results are true, then logically from a relativist point of view one is not left with a reason to choose one result over another. As such, no result can claim superiority or greater authenticity against the other. Only the relevancy of such results may be brought into question. This means that if the results have contributed towards a body of knowledge in a meaningful manner then they may not be questioned (Walker, 2010). It is understood that a considerably long time and many resources are required to rebuild the public infrastructure in Libya, and as such the researcher is concerned about the consequences to education during the recovery period. It is noted that "Libya's current security problems, especially the proliferation of militias, are the most visible consequences of underdeveloped institutions" (Boduszyński & Pickard, 2013, p. 88). Therefore, the impact of the conflict on teachers, education and children varies in different regions of the country and consequently, e-learning theories cannot be employed blindly because the reality of the impact on education and the potential to offer e-learning is highly dependent on local cultural, political and socio-economic means.

In line with this suggestion, Hammersley (1992, cited in Saunders et al., 2009) recognizes the utility of what he regards as common-sense knowledge while also rejecting the impression that all knowledge is valid. This is also the rejection of the concept that knowledge and the researcher are independent of each other (Matthews & Ross, 2010). But this is not the case in this research because the impact of the Libyan conflict on schooling is an internal issue and the external researcher cannot understand the issues in great depth. Therefore as researcher works as an internal researcher that is exploring the issues in depth, this research is not independent from the researcher.

This view is shared by relativism and realism in the manner that both regard it as the starting point of their approach, thus giving rise to the present dichotomy in qualitative research. The impression is that the negative implications associated with both approaches can be overcome by avoiding an attempt to create a universal definition (Bradford & Cullen, 2012). As Bernard (2011) observed, the solution is to adopt a midway position instead of relying exclusively on one at the extreme. This is what he calls 'subtle realism', and it recognizes the existence of independent reality i.e., a world which exists independently regardless of our perceptions about it. However, he also denies direct access to reality by stating that social phenomena are only represented and not reproduced (Martin & Bridgmon, 2012). The conflict cannot be separated from social and cultural values and therefore, realism is being chosen for this research enabling

the researcher to reflect his own position as recognizing reflexivity which means that the researcher is part of the research. Dawson (2009) provides an alternative definition about knowledge, suggesting that it is a belief in which one places reasonable confidence in its truth or validity. This is in line with the suggestion of Hammersley (1992, cited in Dawson 2009) about the common sense of social knowledge, specifically in judging the truth or validity of such knowledge which comes into existence as a result of research findings. This represents a pragmatic aspect of knowledge on the basis of how such matters are resolved in Libyan society on a daily basis by judging its truth in line with what already is known and not how it appeases philosophy (Holmes & Hazen, 2013). It is regarde as the self-referent system where different concepts are found in the same system of language that would help to understand the Libyan conflict and school education context to offer better solutions for schools in this post-conflict period which is not matched with the ontological realist position.

In line with the utilization of a subtle realist approach, Hammersley (1992, cited in Sloan & Quan-Haase, 2017) atempts to resolve the apparently complex and challenging problem of relativism versus realism where both approaches have on a par with each other.

Schneider (2013) indicates that in relation to social constructionism the arguments regarding relativism are akin to those outlined previously. Relativism asserts that since reality is multiple in nature, there are different interpretations of reality. This, in the view of Burry (1986, cited in Margolis & Pauwels, 2011) implies a circular argument in that no single reality can be regarded as better than any other reality taken into account. Moreover, Craib (1997, cited in Harper & Thompson, 2012) holds that the position of social constructionism on the relativism versus realism debate argues that it is a set of beliefs and not a theoretical position. His line of argument is in line with the chain of arguments which Saunders et al. (2012) refer to as nihilistic, whereby it is argued that social constructionism provides a social explanation for a phenomenon instead of other theories. When this argument is entertained it appears that there is no single truth (Williams & Vogt, 2011).

Craib (1997), a psychotherapist and sociologist, suggested that social constructionism is just like interactionism when dealing with the changes that take place rapidly. He argued that social constructionists accept change so that they do not have to justify their position. This means that they simply realize and accept other positions as additional social constructions of the matter. This absolves them from asserting the universality of their position against the other. He also regards social constructionism as another face of interactionism. However, the researcher in this paper argues that interactionism and social constructionism are in contrast with each other

94

despite the fact that both approaches share some philosophical roots. The researcher argues that Craib (1997) partially understood social constructionism and as such confused social construction of the situation as interaction of the individual, however social construction is not just an interaction; it is an experiential understanding of the situation which the individual constructs through the medium of language. There is often confusion about ontological and epistemological approaches, meaning that one may fundamentally misunderstand the philosophy which provides the foundation for social constructionism (Taylor et al., 2016). As indicated earlier, social constructionism has been thoroughly discussed by Berger & Luckman (1991, cited in Curtis & Drennan, 2013) who did not assert ontological claims as they focused only on epistemological claims. The idea that disease exists as an independent reality is in line with the approach of social constructionism (Lodico et al., 2012).

Additionally, children's interest in education and its availability, and the availability of other basic human needs does not exist independently from conflict in Libya; therefore, it is very clear that e-learning does not exist independently but rather is socially, politically and culturally embedded which is why social constructionism is of relevance.  This is not akin to saying that education in conflict cannot exist independently of language.

## 4.4  EPISTEMOLOGY

### 4.4.1  Positivism and Social Constructionism

Ontological assumptions are required to obtain reconciliation with epistemological assumptions as every theory of knowledge carries assertiveness in form of a symbolic truth and embarks on a tussle to gain legitimacy (Bradford & Cullen, 2012; Martin & Bridgmon, 2012; Guthrie, 2010; Taylor et al., 2016; Lodico et al., 2012). As pointed out by Ruane (2016), positivism refers to a philosophy that finds its basis from a realist ontology in which the belief is that external realities exist objectively, through embracing an empirical epistemology.  As stated above, the researcher is not adopting the realist and objectivist ontological positions for this research that do not align with positivism. This the first reason for rejecting positivism for this study. Table 4-2 reports the major difference between positivism and social constructionism.

This viewpoint sharply contrasts with the relativist argument made by Baldwin (2006) that relations are key to creating reality (Merriam et al., 2016). Moreover, it is hard for a realist to embrace knowledge coming from others' experiences and thoughts (Dewy cited by Dyke, 2009; p. 298 cited in Willig & Stainton Rogers, 2017); while such claims would be considered

legitimate by a relativist. As enunciated by Miller (2008), it is desirable to remain selective when studying objects through the perspective of a realist or a relativist. Constructivists, however, may not agree with this statement and raise the argument that it is hard to ascertain an object from an aesthetic point of view, as in case of both perpectives, humans construct these discursively based on the adoption of tacit theories, and therefore both phenomena must be explored from a relativist approach (May, 2011).

*Table 4-2: Positivism and social constructionism*

| Assumptions | Positivism | social constructionism | Authors |
|---|---|---|---|
| *Nature of reality* | Objective, tangible, single | Socially constructed, multiple, because conflict and e-learning are directly linked with cultural, social and political factors | Taylor, et al., (2016) |
| *Goal of research* | Explanation, strong prediction | Understanding, weak prediction Yes, week prediction of implementation of e-leaning in post conflict period of a country | Curtis, & Drennan, (2013 |
| *Focus of interest* | What is general, average and representative | What is specific, unique, and deviant of e-learning in post conflict | Lodico, et al., (2010) |
| *Knowledge generated* | Laws Absolute (time, context, and value free) | Meanings Relative (time, context, culture, value bound) Yes, e-learning in specific post conflict time, circumstance and cultural bounded attached with e-learning | Ruane, (2016) |
| *Subject/Rese archer relationship* | Rigid separation | Interactive, cooperative, participative Yes, interaction required with education department to understand the cultural, social, economic and political meaning attached to offer e-learning in Libya | Saks, & Allsop, (2013) |
| *Desired information* | How many people think and do a specific thing, or have a specific problem | What some people think and do, what kind of problems they are confronted with, and how they deal with them Yes, research really interest to explore the problems attaches to offer e-learning as an alternative in post conflict period of Libya. | Merriam, & Tisdell, (2016) |

As Brand (1996) observed, social constructionism was largely developed through the works of Berger and Luckman (1991), who themselves (cited in Angervil, 2015) give credit to Mead, Marx, Schutz, and Durkheim for highlighting the approaches which are now considered to have provided the origins of social constructionism. These lie in the interpretation of thinking (Brand, 1996). However, in this study, it is assumed that whilst there are similarities between social constructionism and interpretivism, these are inherently different approaches. The one main

common approach is their focus on the process whereby meaning is created, sustained, negotiated, and modified (Schwandt, 2003 cited in Martignani, 2016), and another is that they both take into account the view of those who are subjected to the reality that the researcher is intending to study. Both are also influenced by the post-modernism movement. However, interpretivism distinguishes between the natural and social sciences having as its goal to reach an understanding of the meaning of social phenomenon (Caruso & Roberts, 2018). It also attaches supreme importance to the human subjective experience, seeking to develop objective science and to describe (Hibberd, 2010). This distinguishes interpretivists from social constructionists who do not include objective measurements are not included, and is the reason why Schwandt (2003) regarded symbolic interactionism as interpretative science (Wyly, 2009).

In the current study there is a need to interpret the meaning attached to the phenomenon of e-learning in Libya as it is perceived by the different stakeholders of the education system; these are the players who need to interpret post conflict recovery in Libya and the implementation of e-learning. As Tajfel and Turner (1979) stated, three mental processes are involved in evaluating whether someone is one of us or one of them (i.e. whether someone belongs to our group or is out of the group). This happens in an order, the first element in this regard is 'categorization', which involves placing people in categories to determine their identity and understand them. We categorize each other to understand a social environment (McLeod, 2008; Demmers, 2016). The social categories we use comprise ethnicity, colour, background, religion, social status, employment status (McLeod, 2008). We assign a category to people to understand them (Herriot, 2014). McLeod (2008) further observed that we also must have to understand things about ourselves by identifying the categories to which we belong. Dahrendorf and Collins (2006) and Demmers (2016) tend to place an individual in a certain category when s/he exhibits a particular type of behaviour. Therefore, the whole issue of categorization means there is need to explore the impact of social and cultural values on the implementation of e-learning in post conflict period of Libya. Reflecting on the ontological position underpinning this study and the conceptualizations of relativism and realism, it is also necessary to address the criticism levied against social constructionism. In this matter, social constructionism is often held up to be anti-realist in denying that knowledge represents a direct perception of reality (Kloumann et al., 2011). McLeod (2008) regarded the discovery of the education system as part of a social event instead of an objective ascertainment; social constructionism does not recognize objective reality (Carstensen & Mikels, 2005) nor that that language is the medium for constructing knowledge and concepts (Bury, 1986 cited Carstensen & Mikels, 2005). Hanson (2015) highlighted another criticism of social constructionism as being that it lacks the potential for

changing things because the findings of the research cannot be judged against anything since reality is multiple in nature and if each reality is meaningful to different audiences, then it is not helpful for understanding all situations. Hence, there is a methodological problem regarding the utility of social constructionism. This means that the recommendations made under a social constructionist approach cannot be deemed true in situations of even-like nature (Fischer et al., 2007). Burningham and Cooper (1999) cited in Caprara et al. (2017) assert that such an issue stems from misreading the process; researchers utilizing this approach are seen not to provide ground to their arguments or they reject the opposing arguments by comparing them with objective reality (Cruickshank, 2012). Another important aspect is the plausibility of the research findings that are relied on by researchers in the social constructionist paradigm, which are not presented in an objective manner (Passmore et al., 2018), meaning that those findings are presented convincingly through argument, than in the light of the objective ascertainment of results (Hibberd, 2001). This is in line with the idea of constructionism that research results can take various discourses. The recommendation here is that social constructionism can stir debate and lead towards change (Iofrida et al., 2018). Koh et al. (23017) observed that human activity brings change. They also observed that while reality can always be defined socially, humans are the individuals who actually define what reality is. Everyone has their own definition of the reality in which they find themselves (Meloni, 2014). Moreover, Holtz Monnerjahn (2017) make the link between power and versions of reality, since those version of reality is accepted by others tend to be more assertive and powerful over others.

The prerequisites of a conventional classroom setting are a physical presence as well as communication skills. In an e-learning environment one needs to understand technology and be computer-literate (King & Alperstein, 2015). Learners must be able to understand how to navigate, evaluate and create information utilizing diverse technologies (Bowen & Lack, 2013). Additionally, they must be capable of operating software relating to basic words along with numerical processing (Jung Gunawardena, 2014). This does not indicate that learners must comprehend programming languages, rather that they are supposed to acclimatize with emerging applications as well as trends of information management (Martín-Monje & Bárcena, 2014). One proven strategy adopted by online instructors is to deliver guidance on how to put together an assignment by using the tools of an evolving technology through tutorials (Wheeler & Gerver, 2015). Plenty of software options exist that may be selected by instructors to enable students to produce assignments optimally (Reinders et al., 2013). It is worth mentioning that many of the criticisms of constructionism are attributed to diverse claims that do not match with the existing social comprehension about the world. Primary socialization makes it largely

possible to gain experience about society as subjective reality and nominally through secondary socialization. The former is recognized and acknowledged in society (Francisco, 2017). As a matter of fact, it was suggested by Butt (1995, cited by Ling et al., 2012) that it is the social realm that builds our identity and not an individual inner self. Socialisation occurs as a result of valuing others who highlight the objectivity of society, and give it a meaning that makes it an internalized activity run by individuals (Berger and Luckmann, 1991 cited in Marceau et al., 2016). Language serves the role of a medium (Marceau et al., 2016). Butt (1995, cited in York & Clark, 2006) commented in this regard that language serves as a vehicle in social constructionism to transmit thoughts and spirits in an unproblematic manner but makes it possible through the construction of concepts. In other terms, language shapes thoughts and helps concepts to build. It advances concepts and provides a means to structure the world as it is in reality. Despite the interest and potential benefits of an e-learning system, challenges in its development and implementation vary from culture to culture, region to region, developed country to developing country, and language to language (Al-Azawei et al., 2016; Milton, 2013; Rajab, 2018). According to Tamtam (2011), most educational programmes have been designed and delivered in the Arabic language because foreign language was previously banned in Libya. However, due to local language barriers, professionals from UNICEF as well as other international organizations are unable to communicate and deliver training to teachers and students using their local language (Hweissa & Su, 2018; Elaiess, 2017; ElObeidy, 2016; Busnaina & Woodall, 2015). It is important to consider that there is still ongoing conflict in Libya and limited resources available for the implementation of e-learning in the country. Moreover, the centralized power structure of the country and local language may be protential challenges for the implementation of the e-learning required to provide the basic human right of education to the Libyan youth. Therefore, this research is going to explore this considering the local social, political, cultural factors and the medium of language in the country.

## 4.5 RESEARCH METHOD

Table 4-2 shows the major difference between qualitative and quantitative research methods. Qualitative research is usually linked with the paradigm of social constructionism as it emphasizes that reality is constructed socially (Yang & Gergen, 2012; Willig & Stainton Rogers, 2017; Lancaster, 2007) which is a major indication of the need to use qualitative methods for this research.

*Table 4-3: Qualitative and quantitative research methods*

| Qualitative Methods | Quantitative Methods | Authors |
|---|---|---|
| Methods include focus groups, in-depth interviews, and reviews of documents for types of themes<br><br>Yes, semi structure interview will be conducted | Surveys, structured interviews & observations, and reviews of records or documents for numeric information | Skinner, et al., (2015) |
| Primarily inductive process used to formulate theory or hypotheses<br>Yes, inductive approach is being employed for this research | Primarily deductive process used to test pre-specified concepts, constructs, and hypotheses that make up a theory | Hammond, & Wellington, (2013) |
| More subjective: describes a problem or condition from the point of view of those experiencing it<br>Yes, subjectivism ontological and social constructionism epistemological position is being taken to understand the issue e-learning in subjective way. | More objective: provides observed effects (interpreted by researchers) of a program on a problem or condition | Jones, & Gratton, (2015) |
| Text-based<br>Yes, overall data will be collected and analysed in text form | Number-based | Walker, (2010) |
| More in-depth information on a few cases | Less in-depth but more breadth of information across a large number of cases | Pickering, M., & Griffin, G. (2008). |
| Unstructured or semi-structured response options<br>Yes, semi-structured interview will be employed for data collection | Fixed response options | Hesse-Biber, (2010) |
| No statistical tests<br>Yes, statistical test | Statistical tests are used for analysis | Matthews, B& Ross, (2010) |
| Can be valid and reliable: largely depends on skill and rigor of the researcher | Can be valid and reliable: largely depends on the measurement device or instrument used | Bradford, & Cullen, (2012) |
| Time expenditure lighter on the planning end and heavier during the analysis phase | Time expenditure heavier on the planning phase and lighter on the analysis phase | Holmes, J& Hazen, (2013). |
| Less generalizable<br>Yes, more practical implementation in participation point views to understand the overall situation | More generalizable | Sloan, & Quan-Haase, (2017) |

It is about analysing, recording and attempting to understand the deeper significance and meaning of human behaviour, their experiences, and emotions related to e-learning in the post-conflict recovery period in Libya. The researcher is pursuing a qualitative approach in order to develop a rich understanding of the complex phenomenon that is e-learning post-conflict by taking into account the view of those who will be impacted upon by the provision of an alternative to the traditional way of educating children in Libya (i.e., in physical school buildings).

Qualitative research is not founded on floating hypotheses. Rather, it identifies a problem and then explores it from a theoretical aspect, constructing a framework for the research that is also theoretical as well as possibly, empirical (Ruane, 2016). There is a methodical approach towards data collection and data analysis in qualitative research, allowing for greater flexibility as compared to in quantitative research (Lodico et al., 2010). Qualitative data collection involves collecting text data and observational data using methods such as observation, semi-structured or unstructured interviews and focus groups. Numerical or statistical data is not collected, nor is existing data converted into numerical or statistical form (Ruane, 2016). There can be several stages involved in data collection (Taylor et al., 2016). The process of data collection may even be varied to address different issues, for example, the interviewer may even omit questions during an interview if the interviewee is unable to answer without affecting the overall data collection process and validity (May, 2011). In this research study, the researcher will first draw a sample of people of teachers from whom he may collect data. In the second stage, the researcher may even continue to collect data unless he feels that the issue at hand has been fully explored (unstructured data collection). The size of the sample is often small in qualitative research (Williams & Vogt, 2011), and therefore, a small sample will be selected to explore the issues in depth. This is due to methodical reasons, i.e., usage of wide in-ambit data collection techniques such as in-depth interviews, focus group discussions, and unstructured interviews (Saunders et al., 2009). Further, since statistical analysis is not required, a large sample is also not necessary (Margolis & Pauwels, 2011), and hence, the semi-structured interview will be used and justified in the data collection section of this chapter.

### 4.5.1 Research Approach

Table 4-4 shows that deductive research is useful for testing hypotheses and theories while the inductive approach is helpful with the development of theory and frameworks (Willig et al., 2017) so the latter is adopted for this study which is qualitative in nature and inclined towards developing theory. Theory is developed by uncovering the patterns of a phenomenon on the basis of data which has already been collected (Schneider, 2013), implying a move from the bottom-up approach. Research projects that also include a certain degree of deductive reasoning are those adopting a quantitative approach (Cassell et al., 2017).

*Table 4-4: Inductive and deductive research approach*

| | INDUCTIVE | DEDUCTIVE | AUTHORS |
|---|---|---|---|
| **Meaning** | Inductive approach connotes the argument in which the premises give reasons in support of the probable truth of the conjecture. Yes, this research is going to argument in which the premises of conflict as issues for children give reasons in support of the probable truth of the e-learning conjecture. | Deductive approach is the fundamental form of valid reasoning, wherein the premises give guarantee of the truth of conjecture. | Donley, A. M. (2012) |
| **Approach** | Bottom-up approach Yes, this research is going from observation toward building theory for e-earning in Libya | Top-down approach | Crowther, & Lancaster, (2012) |
| **Starting point** | Conclusion Yes, this research will conclude the implementation of e-learning in post conflict period of Libya | Premises | Walliman, (2010) |
| **Research Method** | Based in qualitative Yes, this research is based on qualitative data | Based on quantities | Cohen, et al., (2017) |
| **Based on** | Patterns or trend | Facts, truths and rules | Tracy, (2013) |
| **Process** | Observation > Pattern > Tentative Hypothesis > Theory Yes, this research will process the pattern and trends and these will be found through thematic analysis | Theory > Hypothesis > Observation > Confirmation | Newby, (2014) |
| **Argument** | May or may not be strong. | May or may not be valid. | Cohen, et al., (2011) |
| **Structure** | Goes from specific to general Yes it is the case | Goes from general to specific | Brown, & Sleath, (2015) |
| **Sample size** | Small sample size | Large sample required | Jones, & Forshaw, (2012) |

Research which benefits from the inductive approach is concerned with the context in which the events being explored are happening. Contrary to the deductive approach, the inductive approach is more appropriate for a study with small sample size (Adams et al., 2014), and where the researchers are working with qualitative data which they may collect using a wide range of different methods so that different views about the phenomenon can be established (Easterby-Smith et al., 2008). Therefore, on the basis of the researcher's philosophical positions, the inductive research approach is being employed for this study because it has been deemed useful to provide an e-learning implementation framework for the Libyan education sector post-conflict.

## 4.6 PLANNED CASE STUDY APPROACH

According to Dubois and Gadde (2002), the planned case study approach is useful to gain in-depth insights when exploring a specific context. They point to the fact that case study research design is usually used to uncover "what" and "why" questions as they pertain to a particular

setting. According to many researchers, the aim of using an exploratory study is to gain answers to the "what" and "why" questions so that a problem can be understood and solutions recommended (Cassell et al., 2017; Yin, 2017). Previous studies have highlighted that the case study approach is often used to explore contemporary problems as well as complex social problems in the real-life context of a give situation (e.g., such as education in violent conflict), and that this is referred to as exploratory research design (Aslam et al., 2015; Stake, 1995). Therefore, the planned case study approach is being employed for this research because it will enable the following what and why questions to be answered: "What" are the major issues of education? "Why and how are these issues related to conflict and school education? And how can these issues can be sorted out to offer an alternative school e-learning system in Libya during the post conflict period?

This present study is concerned with discovering whether e-learning may be used as an educational recovery tool to resume secondary school education after violent conflict in Libya. Some studies have suggested that only case studies can provide a significant depth of understanding about a person, programme, unit or organization (Aslam et al., 2015; Stake, 1995; Yin, 2017). For example, here we are understanding how e-learning (i.e., an educational programme) can be helpful to address the educational needs of young students (i.e., persons) in the presence of damaged infrastructure (i.e., public-school buildings). Yin (2017) highlighted the use of the case study approach in the context of covering multiple factors (i.e., descriptive assessment, exploratory design, and hypotheses testing). Case study research design can be used in both qualitative and quantitative studies as long as they are exploratory in nature indeed it is the most preferred method in such instances (Yin, 2017; Aslam et al., 2015; Aslam et al., 2018). Furthermore, Yin (2017) has stated that the case study approach can cover multiple variables at the same time (e.g., e-learning, violent conflict, and challenges of secondary school education) using multiple data collection sources (e.g., headteachers, students, and governmental educational officers) by using a single case study design and by following a qualitative data collection method (e.g., semi-structured interview).

According to the publication Education under Attack in Libya's War (GCPEA, 2018), education in Libya's southern cities has become impossible due to violence and security risks. Shortages of teachers and low attendance of pupils also negatively affect schooling. Furthermore, it is also found that car bombs, aerial bombings, grenades, and other explosives have destroyed hundreds of schools and universities in Libya (GCPEA, 2018). Armed groups have used kidnapping to generate income, their victims being teachers, professors, and students at the primary, secondary, and tertiary levels, among others. According to OCHA (2017), 558

schools are partially or fully affected by the conflict and 279,000 school children are out of school in the cities of Benghazi and Tripoli. Furthermore, this report also revealed that approximately 40% schools were damaged in Libya between 2011 and 2015. According to a report (Libya MoE, 2012, p. 10) only 10.5% of students are enrolled in private schools, which receive a higher income than public schools (around 300%). Hence, this research is conceived to offer an alternative school education system to compensate for the current circumstances which may last much longer than expected. Based on the aforementioned literature and evidence, the present study is an attempt to demonstrate how e-learning can address the educational needs of secondary school students by providing online resources in considerably less time and with more security compared to class-based education. This attempt requires a planned case study to explore the barriers and facilitators of e-learning. In other words, an e-learning schooling system is being planned on the basis of information from the literature on current situation of Libya. It is an effort to provide a true picture of the potential for how e-learning education it be a more suitable way of delivery the Libyan secondary school curriculum. Finally, the study must offer practical recommendations regarding how an e-learning system can address challenges such as: financial limitations, broken infrastructure, poor security and safety, foreign language understanding, poor technology adoption and usage. All of these factors that are identified in the literature are explored through the primary data collection.

Conflict theories offer explanations regarding how violent conflict takes place in a society, how it begins, and its detrimental consequences for the government and people. Such theories have highlighted how violent conflict can precipitate an unequal distribution of power and resources, human rights abuse, historical resistance, and socio-economic marginalization in any society. Various conflict theories that have been discussed in literature have highlighted how violent conflict can damage infrastructure, education, health, economic development, employment, or the basic human rights of civilians. After reviewing the information given on the consequences of violent conflict in Libya, the present study has described how the seven year-long violent conflict has damaged the school infrastructure and learning opportunities of secondary school students. To maintain social identity, control, and power, armed groups in Libya have recruited many young students to fulfil their personal objectives.

The conceptual framework of this research includes the major factors appropriate to the implementation of e-learning nationally, these being: school structure, public infrastructure, time, resources, institutional setting, political factors, ICT, motivation and behaviour of students. These factors are identified in the literature and therefore, the study framework is

developed on the basis of explicit evidence from the literature on the Libyan conflict situation. A planned case study is appropriate for undertaking such a study, and is therefore being employed for this research.

## 4.7  POPULATION AND SAMPLING TECHNIQUE

It has been reported that the infrastructure for universities and schools is considerably more damaged in southern cities as compared to western cities in Libya (GCPEA, 2018; Fetouri, 2016). Therefore, it is the development of a new infrastructure in the southern cities of Libya which is of highest priority. Tripoli and Benghazi are the largest cities with the biggest populations and the highest amount of violent activity enacted by various armed groups. As a result, the educational infrastructure has been partially or completely damaged and people are striving for basic needs such as food, clothing, and shelter (Unicef, 2018; UNHCR, 2018; Libya's war, 2018; Fetouri, 2016). Benghazi was the most affected province with enrolment rates as low as 50%, and 73% of schools no longer functional (OCHA, 2015, p. 11). Nearly 2,000 schools were reported destroyed or damaged between 2011 and mid-2013. This damage appears to have lessened in recent years, reducing to 100-200 reported attacks between 2013 and 2017, though data challenges make it difficult to reach a firm conclusion (GCPEA, 2018, pp. 35-36). Consequently, the study sample will come from both cities by using personal and social connections. According to a previous study, teachers' insights have proven very useful in interviews related to the issues of education in middle and high school in Libya (Alhmali, 2007).

Ahmed (2015) highlighted the importance of teachers in data collection when planning to deliver ICT in secondary schools. Indeed, there are major obstacles to the implementation of ICT within basic schools in Libya as noted by Alkabashi and Wu (2009), who chose to select headteachers and teachers as their research sample. Resource providers are also important stakeholders in this venture, and therefore, the present study includes policy-makers (educational officers) as well as headteachers because their experiences can highlight key problems and issues in the formulation and implementation of an e-learning system in Libya. Especially, these respondents may provide some guidance regarding the policies and steps that must be taken to launch an e-learning system in the major cities of Libya where massive destruction has occurred. The collection of data from secondary school headteachers and these government representatives will identify consensus/disagreement. It is accepted that these categories of respondent are the main stakeholders because they have been suffering for the last seven years and are invested in the idea of developing an educational programme that is

sustainable to further the professional growth, admission onto graduate programmes, and employment opportunities of Libyan students.

This study follows the assumptions of the constructivist research paradigm, and is exploratory in nature because it attempts to explore the viewpoints and experiences of policy-makers and teachers who are living in refugee camps or who have returned to their homes after violent conflict. The study adopts a snowball sampling technique from which 44 participants were generated, 22 of whom being school headteachers from Tripoli and Benghazi, and the remaining 22 being from government offices responsible for designing the rules, regulations, and policies for secondary schools in Libya. According to previous studies, 40 or more participants is an appropriate number to produce meaningful results when using qualitative data collection and analysis methods (Rayan et al., 2003; Javadi and Zarea, 2016). Data was collected first from those headteachers who were living permanently in post-conflict Tripoli and Benghazi. Subsequently, it was gathered from those who had chosen to live in refugee camps or other safe places. Snowball sampling is the best choice for data collection in the present situation of Libya since personal contacts are necessary in a broken society. Furthermore, the researcher's social connections in Libya were helpful for the same reason.

### 4.7.1 Interview Participants

The demographic features of the interviewees are presented in Table 4-5, which indicates the age, designation, educational level, and years of experience in their positions. From this it can be seen that many of the respondents were of advanced educational standing. The interview been conducted between Oct 2017 to Jun 2018.

*Table 4-5: Interview participants*

| No | Age | Designation | Education | Experience (in years) |
|---|---|---|---|---|
| Int1 | 26-35 | Teacher | Master's degree | Three years |
| Int2 | | Headteacher | MS degree | Nine years |
| Int3 | | Teacher | Master's degree | Two years |
| Int4 | | Teacher | Diploma in education | Four years |
| Int5 | | Education officer | DBA | Two years |
| Int6 | | Assistant education officer | Master's degree | Five years |
| Int7 | | Teacher | Diploma in education | Two years |
| Int8 | 36-45 | Headteacher | Master's degree | Seven years |
| Int9 | | Assistant of education officer | Master's degree | Eight years |
| Int10 | | Headteacher | Master's degree | Six years |
| Int11 | | Assistant of education ministry | Master's degree | Five years |
| Int12 | | Deputy of education minster | Master's degree | Six years |
| Int13 | | Education officer | Undergraduate degree | Three years |
| Int14 | | Education officer | Master's degree | Four years |
| Int15 | | Teacher | Master's degree | Five years |
| Int16 | 46-55 | Headteacher | Master's degree | Twelve years |
| Int17 | | Education officer | Master's degree | Ten years |
| Int18 | | Assistant of education officer | Master's degree | Eight years |
| Int19 | | Deputy of education officer | Master's degree | Nine years |
| Int20 | | Education officer | PhD | Ten years |
| Int21 | | Education officer | Master's degree | Eight years |
| Int22 | | Assistant of education officer | Undergraduate degree | Thirteen years |
| Int23 | | Headteacher | Master's degree | Eleven years |
| Int24 | | Assistant of education officer | Master's degree | Nine years |
| Int25 | | Teacher | Undergraduate degree | Ten years |
| Int26 | | Headteacher | Master's degree | Seven years |
| Int27 | | Assistant of education officer | Master's degree | Fourteen years |
| Int28 | | Education officer | Master's degree | Twelve years |

| Int29 | | Teacher | Master's degree | Six years |
|-------|------|------------------------------------------|----------------------|-----------------|
| Int30 | | Headteacher | Master's degree | Thirteen years |
| Int31 | | Assistant of education officer | Master's degree | Fourteen years |
| Int32 | | Headteacher | Master's degree | Ten years |
| Int33 | | Assistant of education officer | Master's degree | Eleven years |
| Int34 | 46-55 | Executive officer in ministry of education | DBA | Ten years |
| Int35 | | Headteacher | Master's degree | Eight years |
| Int36 | | Assistant of education officer | Master's degree | Eleven years |
| Int37 | | Teacher | Master's degree | Ten years |
| Int38 | | Headteacher | Master's degree | Twelve years |
| Int39 | | Teacher | Diploma in education | Eight years |
| Int40 | | Executive director in ministry of education | DBA | Ten years |
| Int41 | | Assistant of education officer | Master's degree | Nine years |
| Int42 | | Headteacher | Master's degree | Thirteen years |
| Int43 | | Assistant of education officer | Master's degree | Eleven years |
| Int44 | | Teacher | Diploma in education | Eight years |

## 4.8 DATA COLLECTION

Qualitative data collection tools allow for the gathering of data that can help to understand any attitude, behaviour, symptoms, signs, and experiences, and these may vary fromperson to person, situation to situation, researcher to researcher, respondent to respondent, and culture to culture (Merriam & Grenier, 2019; Taylor, Bogdan & DeVault, 2015; Ritchie, Lewis, Nicholls & Ormston, 2013). The selection of a data collection method in exploratory research is dependent on the purpose or objective of the study (DeVault, 2015; Ritchie et al., 2013). For example, the current study aims to explore whether e-learning can address the educational needs of secondary school students after seven years of violent conflict. Common methods of collecting data in qualitative research include focus observations, group discussions, and interviews (Drever, 1995; Kajornboon, 2005), and among these methods, interiews (i.e., structured, semi-structured, or narrative) are common, particularly in social sciences (Ayres, 2008; Brinkmann, 2014; Opdenakker, 2006).

One reason for the popularity of interviews is that they are flexible and especially valuable when there is only a small group of respondents involved (Ayres, 2008; Brinkmann, 2014; Drever, 1995; Kajornboon, 2005; Opdenakker, 2006). Additionally, they offer the opportunity to gain in-depth information and thus, a greater understanding about the proposed objectives based on the views of participants (Brinkmann, 2014; Kajornboon, 2005; Young et al., 2018). Among the different types of interview, semi-structured interviews are the most commonly used particularly when there is little information available about the research topic (Ayres, 2008; Brinkmann, 2014; Opdenakker, 2006). On the other hand, structured interviews consisting of closed questions are more specific, and do not allow the respondents to express anything that goes beyond the scope of those questions (Drever, 1995; Kajornboon, 2005). The open framework of semi-structured interviews enables the researcher to operate in a conversational way, which contains both focused and interactive communication; this allows the researcher to clearly understand the response (Brinkmann, 2014; Taylor, Bogdan DeVault, 2015).

Semi-structured interviews are chosen for this study in which open-ended questions are used. However, as the findings from these interviews will be dependent on the environment, setting, background, gender, and situation that can vary from culture to culture and country to country (Ayres, 2008; Taylor, Bogda, & DeVault, 2015; Whiting, 2008), the researcher accepts that it is just an understanding of the problem that will be gained, and not a solution that will be capable of generalization to a larger population in an educational setting (Fraenkel, Wallen & Hyun, 2011; Taylor, Bogdan & DeVault, 2015). Given the fundamental objective of this study is to understand the experiences, problems, challenges, attitudes, beliefs about educational needs and how e-learning technology may overcome these existing educational challenges in Libya, lack of generalizability to diverse contexts is not a problem. It is the ability to highlight how participants are facing the current alarming situation in the here and now in Libya, and what potential strategies exist to help them that is crucial.

There are many challenges to a researcher wanting to conduct semi-structured interviews, for example: good interviewing skills are required, the questions prepared must not be leading or biased, there is a need for awareness about qualitative data analysis software, problems with the physical availability of interviewees, and the time-consuming and resource-intensive nature of interviewing (Ayres, 2008; Brinkmann, 2014; Drever, 1995; Kajornboon, 2005; Opdenakker, 2006). Headteachers' and educational officers' motivation may also influence the quality of information during semi-structured interviews. Furthermore, it is argued that both a high non-response rate (due to non-random process during telephonic interview) and potential bias during the selection of interviewees can negatively influence the results of a semi-structured interview

(Fraenkel, Wallen & Hyun, 2011; Kajornboon, 2005; Opdenakker, 2006). The size of the sample must also be considered by the researcher as semi-structured interviewing requires greater time, efforts, and cost when compared with the scale of economy afforded by quantitative data collection methods (Opdenakker, 2006; Whiting, 2008).

However, as the major objective of this study is to propose an e-learning alternative for secondary school students, and institutional theory has been selected as one major theoretical pillar for the conceptual framework, it is imperative to understand the education institution as whole in order to develop a new e-learning system for secondary schools in Libya and that requires in-depth input from teachers, administrative workers and management to ensure that all angles appropriate to the implementation of e-learning are covered. By involving top to bottom level participants in the research sample and giving them the opportunity to explore this issue through semi-structured interviews, it has been possible to gain resources, skills, management, political and administration perspectives.

## 4.8.1 Pilot Study

The research questions have emerged after the extensive review of cross-disciplinary constructs (e.g., e-learning and violent conflict), and the interview questions result from the review of several qualitative studies on e-learning and violent conflict. With this background knowledge, the researcher has formulated the structure, design, and order of the interview questions as per the proposed objectives of this study. According to researchers, the reliability and validity of responses is strongly dependent on the wording of the questions and their ability to provide accurate data (Foddy, 1994; Creswell & Creswell, 2017). Some researchers have argued that the wording of questionaries used in semi-structured interviews must be clear to obtain valid and reliable answers from interviewees (Galletta, 2013; Foddy, 1994; Creswell & Creswell, 2017). Figure 4-2 shows the development of the questions.
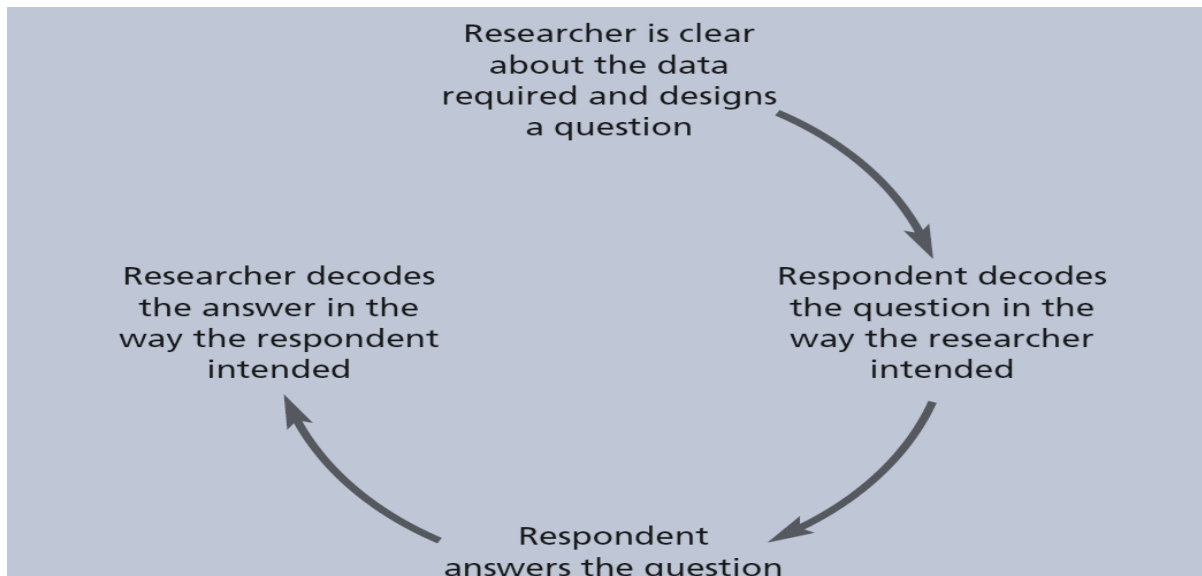
*Figure 4-2: Development of data collection questions: Source: Saunders et al., 2009*

According to Majid et al. (2017), a pilot study can be conducted to measure the efficiency and effectiveness of the selected methods. Furthermore, other researchers have highlighted that pilot studies may offer an understanding as to whether the intended interview questions are able to obtain answers that achieve the study's proposed objectives (Van-Teijlingen & Hundley, 2002; Morse et al., 2002). Thomas et al. (2015) have stated the purpose of a pilot study is to establish the validity and reliability of the chosen data collection methods and measures in the perspective of a specific research setting. Generally, the first step in a pilot study is to try out the proposed questions whether in a questionnaire format or interview situation, with a few targeted respondents, colleagues, acquaintances, or advisers to determine whether they are understandable and can be answered without the respondent having to ask for clarification (Blessing and Chakrabarti, 2009). The small sample which should be representative of the population the researcher is using for the study, may offer valuable and important criticism and suggest potential improvements to the question wording, expression, format, and order; they may comment on the importance of items, and the feasibility of the entire instrument, and on whether to delete or add additional questions (Blessing and Chakrabarti, 2009; Thomas et al., 2015). According to Hsu and Sandford (2010), the pilot is a communication process which usually determines what should be changed (if anything) to obtain appropriate interview questions.  Hence, researchers conduct pilot studies to test the validity and reliability of instrumentation by carrying out the data collecting procedures, and to explore the applicability of the proposed methodology under the conditions to be imposed in the main study.  It is also found that the Delphi technique may be used to discuss interview questions with experts in relevant fields in order to design perfect interview questions which will yield rich data.

To gain the benefits of a pilot study, the researcher approached ten teachers at the Libyan School in Salford, where the normal Libyan Secondary School curriculum is delivered. Additionally, three PhD students at the researcher's university with experience of being educated in the Libyan system were asked for their participation. Three teachers refused to participate, which is not unusual given the Libyan preference for personal secrecy especially in these times. They were asked simply to comment on the questions, not to answer them in a mock-interview situation. The feedback was that the questions were understandable and felt to be appropriate. No additions or deletions were suggested.

## 4.8.2  Sample Selection and Data Collection Journey

In this study, the snowball sampling technique, also known as chain or chain-referral sampling is used. This sampling method is unique in the sense that access to the required sample is obtained through informal methods, which enable the researcher to obtain further contacts from existing ones in the knowledge that each one recruited has the required background for the sample. It allows the researcher to initially select a few respondents based on social connections who can then act as a rolling snowball to gather further respondents. In the case of this study, the social connections (e.g., close friends) of the researcher are policy-makers (i.e., education officers) in the government's education department in Tripoli and Benghazi, Libya.

Contact with the researcher was maintained through Facebook and WhatsApp platforms, and meetings were scheduled with two educational officers (social connections) using social media platforms. The researcher spent almost two hours with these individuals in order to discover how they could help the researcher to better access the targeted population. During face-to-face meetings, they stated that they had vast social networks (including contacts like headteachers, teachers, and other educational officers) and then contacted their colleagues and subordinates with a request to book face-to-face interviews with the researcher. Through these connections, the researcher was able to make use of their social networks and gather participants who then encouraged others. It can be said that snowball sampling utilises social referral because it exploits links in social connections in order to reach people who have extensive knowledge about a study's proposed objectives. However, it is necessary to remember that as a snowball sample is not random, the findings cannot be generalized to the entire population in the category.

## 4.9  DATA ANALYSIS

As Williams and Vogt (2011) observed, a strict constructionist approach believes reality to be constructed socially, and therefore thematic analysis is important when handling qualitative data gained using this perspective. Essentially, the content, context and text alignment are viewed in accordance with the social phenomena being explored.  There are various different qualitative data techniques that can be employed to make sense of data such as content analysis, grounded theory, discourse analysis, and thematic analysis (Boyatzis, 1998; Speziale, Streubert & Carpenter, 2011; Joffe & Yardley, 2004; Taylor, Bogdan & DeVault, 2015). But among these options, thematic analysis is the most common and is used extensively for data analysis across the world (Speziale, Streubert & Carpenter, 2011; Joffe & Yardley, 2004).

In the present study, each respondent is considered as a unit of analysis and regarded as a case. The responses of the interviewees were recorded on audio devices and saved on a repository that was used for making transcriptions. Thematic analysis is considered one of the most recognized methods to draw meaningful results in qualitative studies (Javadi and Zarea, 2016), and was performed in sequential order so as to complete the objectives of the current study. Thematic analysis is a logical method of analysis to use when a study is underpinned by the assumptions of constructionist and essentialist paradigms (Boyatzis, 1998; Speziale, Streubert & Carpenter, 2011; Taylor, Bogdan & DeVault, 2015). Data analysis methods are divided into two groups: interpretative phenomenological analysis and conventional analysis. This study adopts the assumptions of interpretative phenomenological analysis (i.e., thematic analysis) that is not limited to any theory (Javadi and Zarea, 2016). According to Rayan et al. (2003), themes are derived from inductive approaches or by using prior theoretical understanding such as professional definitions taken from literature reviews, theoretical orientations, and personal experiences. This study adopts the guidelines and assumptions of thematic analysis as given by several well-known studies (Rayan et al., 2003; Javadi and Zarea, 2016). Following the steps in qualitative analysis as suggested by Braun and Clarke (2006), constant comparative thematic analysis is a suitable method.

### 4.9.1 Interpretation process

There is an increasing trend amongst qualitative data of research to use coding and themes generation while analysing empirical material. Interpretation is a systematic process that begins with transcription of recorded interviews which is conducted in Libya with selected participants. NVivo is software is commonly used for transcription throughout the collection of empirical material in order to bring about modification in interview guide to be used for

interviews in future. But manual thematic analyses has bee conducted in this research because the data analyses being started after the 3ʳᵈ interview. Filed notes are also used to cross-check the initial transcription of all recorded interviews. Interpretations of emergent patterns under every theme were made from the responses of the participants. Educational needs are being addressed in countries that have witnessed educational crises such as Libya, and themes were acquired from the transcriptions through the manual thematic analyses. The subsequent results are explained in themes and inter-relationships with strengths revealed in the Matrix coding query outcomes and the visual illustrations by the conceptual model. Funding and analysis portions demonstrate the interview outcomes. Researcher developed the field notes while interviewing the study participants. Cross-checking was carried out with aim to identify any details that has been missed while transcribing the interviews.

**Theme 1: Main challenges of secondary schools in Libyan**

Codes

- Safety and Security
- Challenges in Schools
- Damaged Infrastructure
- Economic, health and social issues

**Theme 2: Current infrastructure**

Codes

- Political and educational leadership
- National culture and literacy rate
- Curriculum and accrediting
- Motivation
- Ability and skills

**Theme 3: Enablers and facilitators**

**Codes**

- Political government planning and investment
- Focus on ICT and training
- Motivation and Awareness
- Benefits of e-learning
- Media role

Conducting the interviews, it is important to allow the loose flow of discussion in accordance with sub-research questions that authors have in their mind. Therefore, the interviews wer conducted in local language that give more confidence to the participants to talk in nonlanguage. The transcribed text was carefully divided and then allocated to 4 different

frames. Preparation is the very first step that required the researchers to be familiarised with the collected empirical material. After carefully organizing, and sorting the empirical materials, the authors developed interpretation frame. Many authors also called this step as playing with the data (Oliveira et al., 2013). Qualitative researchers often face great hurdles during data processing stage (Boyatzis, 1998). During this step, the researcher has performed multiple tasks like reading transcribed interview texts, rechecking the field notes, reading and organising the documents and reviewing the relevant existing literature as well. In addition to performing these tasks, the researcher also developed different interpretation frames through using the theoretical framework of this research which included the AMO, institutional theory and TOE framework.

Cooperative research is a process that involves verifying interview transcriptions, interpreting empirical material, and discussing final framework (Javadi and Zarea, 2016). Cooperative research process enabled the participants to verify the accuracy of transcription/analysis therefore, four transcripts have been send back to the participation to make sure whether the transcripts have been translated exactly what they said in the interview. For concept testing and idea generation, interaction with study participants considered very important. The study findings were further strengthening and improved with help of suggestions and feedback that informants provided during this process. Guest, MacQueen & Namey, (2011) also used cooperative research procedure while developing their brand co-creation framework. After acquiring the feedback from informants, the transcribed texts of interview were coded that, in turn, led to the development of concepts. After that, categories were developed by combining these concepts together. The author triangulated results of transcribed interviews and these categories with meeting documents and field notes.

In addition to using four-step approach PESI (preparation, examination, specification, integration) for interpretation of empirical material, the researcher also used other approaches generally suggested by different qualitative researchers for coding (Oliveira et al., 2013). Through PESI approach, the researcher made the interpretations in a systematic and more organised manner and reported the collected empirical data in an effective manner to develop the final research framework of this thesis.

## 4.9.2 Coding for identified patterns

An action or data that consistently, regularly or repetitively takes place and come out more than two times is called a pattern. Pattern primarily concerns with association between multiplicity and unity (Blessing and Chakrabarti, 2009). ) referred pattern to as multiplicity of components get together in unity of specific arrangement. According to qualitative researchers, pattern is rather a stable indicator of ways through which humans live and work to make their world more tractable, predictable and comprehensible. While understanding regularity idiosyncrasy and patterns, taking some prominent caveats into consideration is very important (Taylor et al., 2015) due to the possible patterned variation within data (; Joffe & Yardley, 2004). In addition to coding and categorising the data in accordance with what informants talk about, I also considered the field notes that I prepared while conducting the interviews. While looking at coded data to identify the hidden patterns to be categorised, it is important to understand that instead of grouping things together just because of their similar appearance or they look too much alike, we should focus over whether they also share some common things as well – even if commonality, illogically, comprises of differences. To me, initially conding for themes – as recommended by many qualitative studies – is not a wise advice as it is more likely to muddy the terminology water. Theme is, in fact, something that in itself is not coded but a consequence of coding, analytic reflection or categorization. Therefore, no method of "Theme Coding" has been introduced in this article. Thematic analysis is, however, referred in a section as "Themeing the Data". Initially, the datum is coded – secondarily coded when required – to label and discern its meaning and content in accordance with research requirements. While explaining the differences, Javadi and Zarea, (2016) stated as: "think of a category as a *word or phrase* describing some segment of your data that is *explicit*, whereas a theme is a *phrase or sentence* describing more *subtle and tacit* processes.

A theme can be described as a kind of agreement with the main text, but it is more concise, shorter, simple, and accurate (Boyatzis, 1998; Javadi and Zarea, 2016). It can be repeated several times because it may be large enough to help provide answers to more than one research question (Javadi and Zarea, 2016). Rubin and Rubin (2011) argued that thematic analysis is interesting and exciting because we discover themes using interview data. Thematic analysis is used for recording, pinpointing, and examining data to extract meanings and concepts (Boyatzis, 1998; Braun and Clarke, 2006). In thematic analysis, data can be acquired through transcription of interviews, documents, notes in the field, pictures, and videos (Joffe & Yardley, 2004; Guest, MacQueen & Namey, 2011). Initially, the interviews were transcribed. They were then coded to capture the relevant text regarding the use of e-learning technology as a post-

conflict educational strategy especially in major cities which have been completely damaged due to the violent conflict. Based on the codes, major themes were developed re-checked to ensure coherency and were subsequently named, resulting in a thematic framework of related ideas. The relevant participant responses were gathered under each theme and the emergent pattern interpreted. Relying on this technique, the role of e-learning practices in protecting secondary school student's education after violent conflict was uncovered and obtained from the transcriptions in the form of major themes with thematic analyses (Aslam et al., 2018; Oliveira et al., 2013).

With headteachers and targeted government officers as units of analysis, the interview responses were recorded and saved in a repository that was beneficial for making transcriptions. Interviews were transcribed, coded, and relevant text captured. Fundamental themes were verified for coherency and subsequently labelled, leading to a thematic framework of related ideas. In the event, the researcher conducted a close examination of each interview transcript to gain a better understanding of the context in which specific words were used by participants. This was done as soon as possible after each interview. Initial codes were generated after conducting and analysing nine interviews. Manual themetic analyses used words that were grouped in thematic codes. After revision of the preliminary codes, grouping was developed based on thematic map. This study was given four major themes, 15 sub-themes, and various key-terms for creating complete discussion. 128 terms were identified based on the comments of respondents. Afterwards, in the next stage, theme development was checked for both external and internal heterogeneity (Patton, 1990). It revealed different terms being used by participants when discussing e-learning support during the post-conflict infrastructure and financial recovery period in Libya. Every theme had support from existing theories in the literature, strengthening the concept validity as well.

While selecting coding methods(s) it is very important to determine which method suits best to your study. It is generally suggested to carefully read and reread your data to preface and accompany it with coding because instead of the coding system, it is your subconscious that develops links leading to flashes of insights (Rayan et al., 2003). It is also recommended to explore two or more coding methods and analytic approaches in every research so that accountability, breadth and depth of research findings can be enhanced to maximum extent (Rayan et al., 2003).
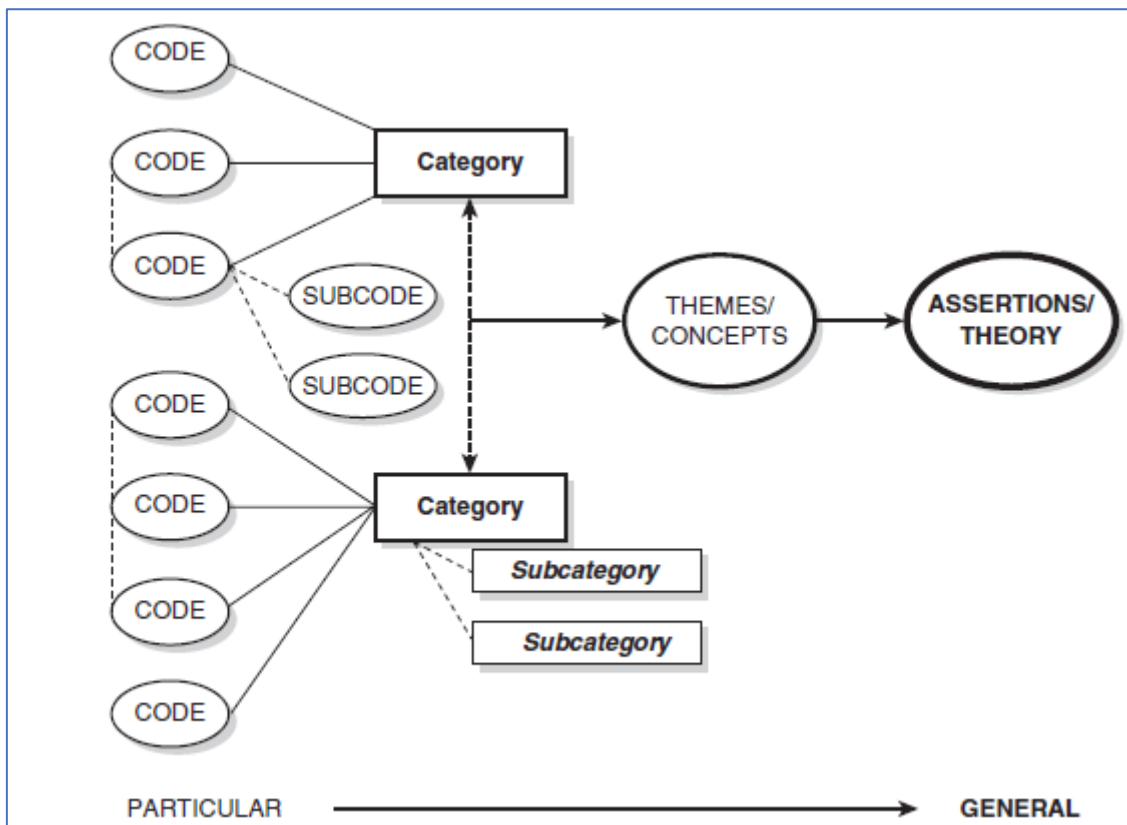
Figure 4.3: Streamlined codes-to-theory framework for qualitative investigation (Richards and Morse 2007)

According to my opinion, there are three core characteristics of a 'social science' theory: just like traditionally it is conceived; it applies if-then logic to control and predict the action; explains with reasons why/how something occurs and direct how to improve social life by providing guidance and insights (Taylor, Bogdan & DeVault, 2015). The categories containing coded data in clusters are further refined into subcategories. Making comparisons amongst different categories and consolidating them in numerous ways may led to go far beyond the actual reality of data and move towards the theoretical, conceptual and thematic level. Codifying is a very fundamental process and generally follows the streamlined and ideal scheme (see Figure above for detail). Reaching the final framework to this research, in actual, is a messy and complex act more than what is illustrated in figure above which is has been used to develop the final framework of this research.

## 4.10 SUMMARY

Social constructionism lends support to the idea that people are bringers of change in education There is still ongoing conflict in Libya and limited resources are available for the implementation of e-learning in the country. Moreover, Libya's centralized power structure and local language are protential challenges for the implementation of the e-learning that is needed to provide the basic human right of education to Libyan youth. This study has been designed to explore this facet and consider the local social, political, cultural factors and medium of language in this country. The inductive research approach is used and semi-structured interviews are chosen as the data collection method with the intention of conducting thematic analysis on the data gathered. Figure 4-2 shows the overall progression of the thesis.
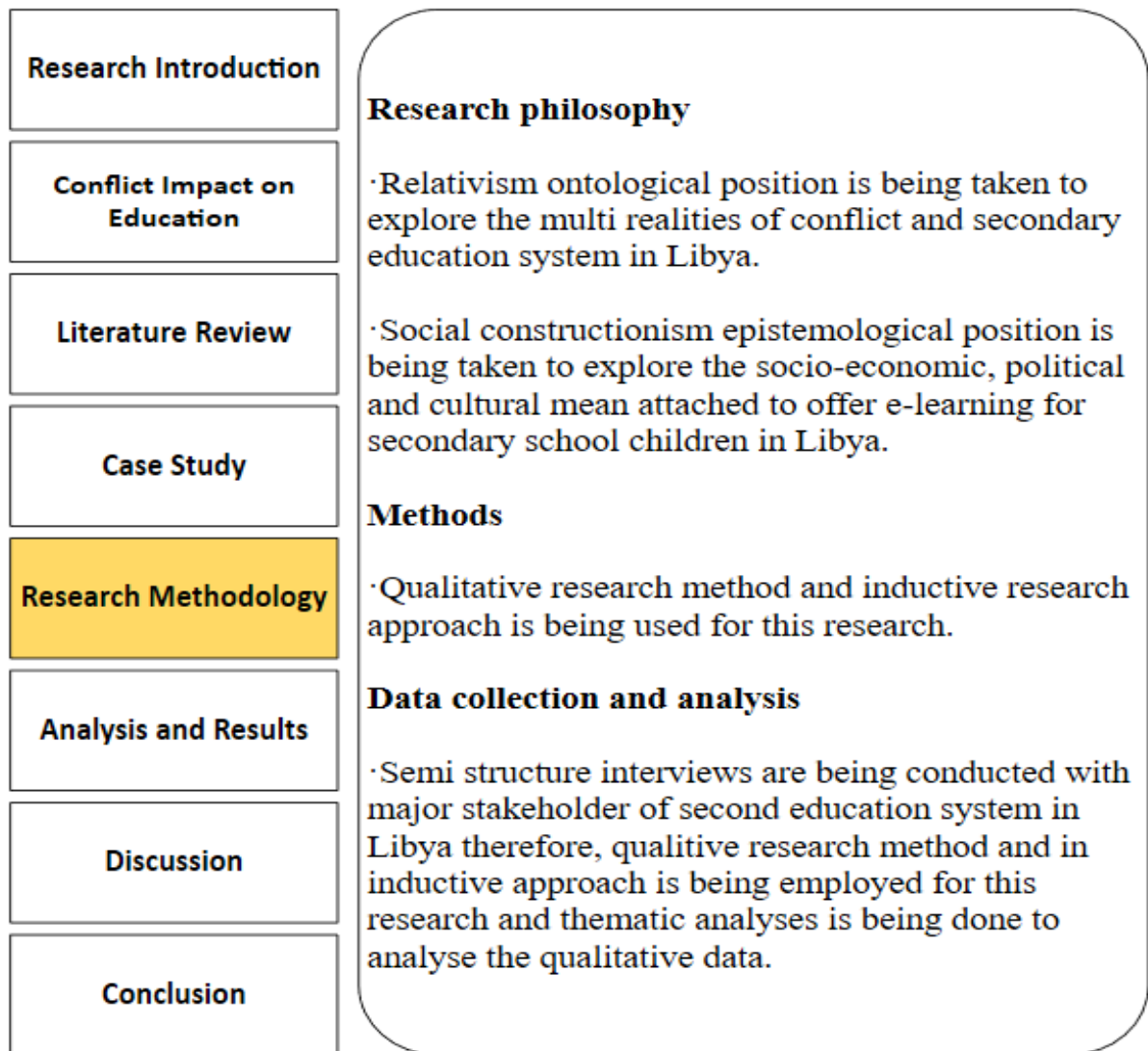


*Figure 4-3: Thesis progression*

# CHAPTER 5 IDENTIFICATION OF THE CHALLENGES OF EDUCATION IN LIBYA

This chapter focuses on the results obtained from the face-to-face interviews with the 44 different employees of the Ministry of Education. It presents the main findings, explains these, and discusses the significance arising from them.

## 5.1 THEMATIC ANALYSIS - RATIONALE

A wide range of approaches associated with thematic analysis have been discussed in the study (Alhojailan, 2012; Braun et al., 2018; Boyatzis, 1998; Clarke & Braun, 2013). Usually, a structured method for data analysis is used to add meaning to the data that is obtained in empirical studies (Dapkus, 1985; Fereday & Muir-Cochrane, 2006; Galletta, 2013; Guest et al., 2011). With thematic analysis, the researcher is well supported in efforts to analyze exploratory interviews using a deductive approach (Galletta, 2013; Guest et al., 2011; Maguire & Delahunt, 2017; Tuckett, 2005). Additionally, the method also stimulates the urge to search for patterns of themes in data that are then encoded and assigned to different interviews (Braun and Clarke, 2006). In this study, semi-structured interviews were used on the grounds that they are best suited to the task of providing answers to the research questions. Furthermore, semi-structured interviews allow researchers to obtain different perspectives from respondents, thereby enabling the researcher to gain insights based on the social phenomena because qualitative interviews provide an opportunity for participants to reflect on their past experiences and on different subjects, and gather their viewpoints and perspectives (Alhojailan, 2012; Braun et al., 2018; Clarke & Braun, 2013; Clarke & Braun, 2014). Interviews with secondary school teachers and educational administrators were recorded to gain insights into their perspective. This particular sampling strategy was adopted for the study since the inclusion of key informants is claimed as a critical success factor in research due to their ability to offer insights about the phenomena under investigation, and to provide contrasting sources or corroborative evidence (Galletta, 2013; Guest et al., 2011; Maguire & Delahunt, 2017).

One of the most important tasks of this research is to identify patterns or themes in the data collected with the hope of addressing the questions in a study. Moreover, to a certain level, themes show the patterned response or the meaning of the data set (Braun et al., 2018; Clarke & Braun, 2014; Galletta, 2013). Previous studies have stated that themes are important if they are linked to the production of an explanatory model or the co-ordinated picture (Clarke & Braun, 2013; Clarke & Braun, 2014; Dapkus, 1985).

Braun and Clarke (2006) believe that there are two fundamental ways to identify patterns and themes within data, these being the bottom-up inductive approach (Clarke & Braun, 2013; Clarke & Braun, 2014; Dapkus, 1985; Frith and Gleeson, 2004) and the top-down deductive approach. Thomas (2003, p. 2) stated that the inductive approach enables the researcher to use the findings from the research to identify the important patterns or themes that are inherent in the collected data without any imposition of structured methodological constraints. There are three major reasons why an inductive approach is preferred; firstly, it allows data that is extensively raw and varied to be transformed into a brief format such as a summary; secondly, it allows for the research objectives to be linked to the findings that are derived from data collected; and thirdly, it allows for the development of a theory or model from the structures or processes that are observed in the data. The researcher believes that both top-down and bottom-up processe have value to a certain extent and they are also believed to be impacted by the theoretical construct of the influence of e-learning in a developing country under crisis (Alhojailan, 2012; Braun et al., 2018).

Thematic analysis is a famous and recognized method that draws meaningful outcomes in qualitative studies. The analysis is performed sequentially to accomplish a study's objectives. It is associated with research underpinned by essentialist and constructionist philosophies. There are two major groups of data analysis, these being conventional analysis and interpretative phenomenological analysis. This study follows assumptions that are linked to interpretative phenomenological analysis which is also referred to as thematic analysis with no limitations to any kind of theory. Rayan et al (2003) believe that the inductive approach derives themes, and uses theoretical understanding like literature reviews, professional definitions, theoretical orientations, and personal experiences. Thematic analysis and the assumptions related to it in the study of Rayan et al. (2003) are followed in this study. Further, qualitative analysis steps that are mentioned by Braun and Clarke (2006) are also followed in this study, from which it is concluded that constant comparative thematic analysis is best suited to the nature of the study. Themes are referred to as a type of agreement with text, that appear as concise, simple, short and accurate clusters of ideas. Rubin and Rubin (2011) presented thematic analysis as an exciting and interesting phenomenon that helps in identifying themes with the help of data collected from interviews. This type of analysis could be used for pinpointing, recording and evaluating data so that meaningful concepts and extracts can be attained. Data in thematic analysis could be obtained by transcription of documents, interviews, videos, pictures and field notes.

Inductive thematic analysis, in accordance with social constructivist epistemology, is required for this study so that the research data can be interpreted (Alhojailan, 2012; Braun et al., 2018; Clarke & Braun, 2013; Boyatzis,1998). Through this approach, the practices of e-learning in the course of infrastructure reconstruction can be understood from each participant's own perspective. Appropriate analysis of human perception is essential in the adoption of e-learning, and indeed of social and cultural phenomena, as such analaysis enables meaningful understanding of the human social environment to be developed. Thus, the role of the researcher in this study is that of a pluralist for three reasons; (a) direct involvement of participants in sharing their experiences and viewpoints voluntarily; (b) participants are guided all the way in interviews and encouraged to become directly involved; and (c) the inductive approach was employed to analyze the data leading to the formulation of a new theory. This approach is normally employed for analysing data if there is no alignment between the approach and conceptual framework or models.

Additionally, field research was undertaken from which a relationship between the interview questions themes was identified (Braun and Clarke, 2006; Dapkus, 1985; Fereday & Muir-Cochrane, 2006; Galletta, 2013). There is also an inextricable association of themes with collected data (Dapkus, 1985; Fereday & Muir-Cochrane, 2006; Patton, 1990). This means that the thematic analysis of this study is driven by data (Boyatzis, 1998). After conducting semi-structured interviews, reading interview transcripts was quite important so that a better understanding could be gained regarding the context where specific words were used by participants. After revision of preliminary codes, groups were developed based on a thematic map.

The current study has four major themes: safety and security, challenges in schools, damaged infrastructure, and economic, health and social issues as well as 15 sub-themes, and various key-terms for creating complete discussion. 128 terms were identified based on comments from interviewees (Table 5-1). Those themes were subsequently checked for both external and internal heterogeneity (Patton, 1990). It was apparent that different term were used by participants in respect of e-learning support in the course of infrastructure and financial recovery after Libya's violent conflict. Every theme has support from existing theories, hence strengthening the concept validity as well.

*Table 5-1: MAIN CHALLENGES FOR SECONDARY SCHOOL STUDENTS*

| Codes | Keywords |
|---|---|
| Safety and Security | Life threats Murders Kidnapping |
| | Children trafficking High fear |
| | Low government support |
| | More injustice practices |
| | High migration rate |
| | Law enforcement agencies |
| | Uncomfortable environment |
| Challenges in Schools | Damaged school buildings |
| | Use of school as shelter |
| | Lack of school buses |
| | Non-functional computer Labs |
| | Limited financial resources |
| | Limited teachers |
| | Low attendance |
| | Low affordability |
| | Child labour |
| | High number of students |
| Damaged Infrastructure | Damaged houses |
| | Electricity issues |
| | Shelter issues |
| | Limited internet facilities |
| | Public transport issues |
| | Sewage issues |
| | Sanitation issues |

| Economic, health and social issues | High poverty<br><br>Loss of personal assets Health issues<br>Lack of food<br><br>Limited shelter camps<br><br>No governmental support<br><br>Limited aid facilities<br><br>Long recovery period |
| --- | --- |

## 5.2 MAIN CHALLENGES FOR SECONDARY SCHOOL STUDENTS

Libya has a national culture that is based on collectivism, limited future thinking, more political control and involvement, and uncertainty avoidance. Furthermore, the Libyan government lacks healthy relationships with international powers, neighbouring countries, and intendent armed forces; therefore, there is no guarantee that violent conflict will not rise again. There is a great need to understand the challenges and create a long lasting and durable solution to address these problems. Previous studies have discussed the importance of e-learning practices which address the needs of those persons who have busy work schedules but want to continue their studies without compromising their professional commitments. However, there is no significant literature available that explores how e-learning practices can become a good substitute when a country has issues of safety and security, damaged infrastructure, limited financial investments, limited functional schools, and a high number of external challenges. There is no universal solution especially when the challenges follow a 7-year long violent conflict. It is crucial for authorities and researchers to analyze these challenges and arrive at solutions since they undermine the effectiveness of face-to-face education in developing countries. Specifically, it is important to identify the educational challenges of face-to-face education so that a discussion of how e-learning can create the best alternative can be held.

### 5.2.1 Sub theme 1: Safety and security issues and their impact on face-to-face education

Int13 discussed the safety and security issues:

124

*"There are many cases of school children who have lost their lives when they were going to their schools. At that time, there were very high safety and security issues in the regular educational activities of school children"*

Int16 shared experience about the safety and security issues:

*"One of my school students (a girl) was sexually insulted and brutally killed by the persons from militia groups. That gang rape of an innocent girl was very shocking for me, her classmates and the whole school. In fact, this incident has created worries and fears of who could be the next victim (sexual, financial, kidnap, murder)"*

After this incident, the number of female teachers and students became low as they became very concerned about the safety and security in secondary schools. They feel that the police and government are unable to provide security and they do not want to put their lives at risk of more danger. At that time, the belief that face-to-face education is no longer secure and safe in southern cities initiated. It is better to start self-schooling at home instead of directly putting children in danger. Due to life threats for school children, many parents have decided to discontinue education because they thought that they did not want to create danger especially when government authorities and law enforcement agencies failed to offer a comfortable environment to continue educational activities. Most parents have high fear about safety and security and therefore they migrated to other cities where the situation is a little bit better compared to Benghazi and Tripoli cities. From the parents' point of view, children's safety and security are at high risk if they keep attending those public schools and parents express the view that they would not forgive themselves if anything happened to their children in schools.

Int15 shared views about safety and security issues:

*"Many students and teachers with their families including my relatives have permanently migrated from the cities of Benghazi and Tripoli due to high life threats, murders, and kidnapping of school children. These persons have expressed that these cities cannot be safe even in the future as there are many terrorists who can create bad situations at any time in future".*

Participants said that they can return when the government, police, army, and other law enforcement agencies provide 100% safety and security. Due to the high migration rate from Benghazi and Tripoli cities, the number of teachers, students, and earning of public schools are negatively influenced. Although the situation is a little better now, there is no guarantee that these types of violent incidents will not reoccur and there is a great need to bring a permanent solution that can give a feeling of safety and security in terms of secondary school students education.

Int3 spoke about safety and security issues:

*"I lost my boy during this violent conflict. I have no information regarding whether he was killed, kidnapped, or sold for children trafficking somewhere. After this, incident, we have left Tripoli permanently, it is unsafe and unsecure for my other family members. I also gave my resignation after two months of that incident especially when I lost my hope to recover my child. I do not want to lose my other children. I moved to a rental house and have been surviving very miserably for many years. I believe there is always more risk in face-to-face education, and it is the responsibility of education policy-makers to provide a solution that is affordable, safe, secure, and durable in the future"*

The armed groups became more confident due to poor co-ordination, instability and the provisional level of the government. During the period of 2011 to 2016, many schools were damaged due to attacks by armed groups. Resultantly, the motivation of students and teachers and school infrastructure have been damaged very badly. These armed groups also kidnapped some students for money, but the parents of these students were not in a position to fulfil their demands. This situation eventually restricted the educational activities and a number of male students joined these armed groups.

The first theme (i.e., safety and security issues and their impact on face-to-face education) has discussed murder, fear, uncomfortable environments, migration to other cities, kidnapping, failure of government and law enforcement agencies to offer security and safety and how these factors negatively influence the educational activities of secondary school students in face-to-face education. Participants shared their own stories as well as incidents that occurred with their students, families, and relatives related to safety and security of children. For example, an education officer shared overall experiences about the incidents in which secondary school children lost their lives and stated that after such incidents many parents were extremely afraid and as a result removed their children from education. Moreover, a teacher shared how his female student was kidnapped, sexually assaulted and brutally murdered by terrorists during the violent conflict. That teacher also told of how the attendance of female teachers and students decreased after that incident. Finally, a teacher shared a story about his realisation of insecurity in schools especially after he lost his son as he made his way back home after school one day. His family cannot find any information about him and they migrated permanently to another city.

A teacher shared how his beloved students died and how many were injured during this violent conflict in the southern cities. He also stated that women were sexually assaulted and kidnapped during the severe violent conflict. Such situation led many of the students to forego their education in favour of their survival. Overall, the majority of respondents have emphasised that there is no guarantee that these types of violent conflicts will not reoccur in Libya. Therefore, it is more effective to search for a permanent solution that can offer more safety and security to

school students should these types of extreme violence return. Though the Libyan government has declared that it is compulsory for every person to receive primary and secondary education, the emergence of violent conflict acts is a strong barrier to the achievement of this objective.

The destruction of homes, schools, utilities and services, etc., entails tremendous struggle on the part of the population, and requires huge resources and financing to improve the infrastructure which will not happen overnight. Life-threatening circumstances and damaged school infrastructures have caused many students to leave their schools, and indeed many have left their residential areas and are now living in government-provided temporary shelters. Though some parents are willing to restart the education of their children, they have no means to do that as public schools are closed and dangerous if open; and private schools which have better security are small in number and extremely expensive. Furthermore, such opinions show that people who have experienced violence in connection with school, will always remain uncertain about the safety and security of their children because they have first-hand experience of the horrors of murders and kidnappings.

## 5.2.2 Sub theme 2: Various challenges in schools and their impact on face-to-face education

Int13 discussed the safety and security issues:
*"There are many cases of school children who have lost their lives when they were going to their schools. At that time, there were very high safety and security issues in the regular educational activities of school children"*

Int16 shared experience about the safety and security issues:
*"One of my school students (a girl) was sexually insulted and brutally killed by the persons from militia groups. That gang rape of an innocent girl was very shocking for me, her classmates and the whole school. In fact, this incident has created worries and fears of who could be the next victim (sexual, financial, kidnap, murder)"*

After this incident, the number of female teachers and students became low as they became very concerned about the safety and security in secondary schools. They feel that the police and government are unable to provide security and they do not want to put their lives at risk of more danger. At that time, the belief that face-to-face education is no longer secure and safe in southern cities initiated. It is better to start self-schooling at home instead of directly putting children in danger. Due to life threats for school children, many parents have decided to discontinue education because they thought that they did not want to create danger especially when government authorities and law enforcement agencies failed to offer a comfortable

environment to continue educational activities. Most parents have high fear about safety and security and therefore they migrated to other cities where the situation is a little bit better compared to Benghazi and Tripoli cities. From the parents' point of view, children's safety and security are at high risk if they keep attending those public schools and parents express the view that they would not forgive themselves if anything happened to their children in schools.

*Int15 shared views about safety and security issues:*

> *"Many students and teachers with their families including my relatives have permanently migrated from the cities of Benghazi and Tripoli due to high life threats, murders, and kidnapping of school children. These persons have expressed that these cities cannot be safe even in the future as there are many terrorists who can create bad situations at any time in future".*

Participants said that they can return when the government, police, army, and other law enforcement agencies provide 100% safety and security. Due to the high migration rate from Benghazi and Tripoli cities, the number of teachers, students, and earning of public schools are negatively influenced. Although the situation is a little better now, there is no guarantee that these types of violent incidents will not reoccur and there is a great need to bring a permanent solution that can give a feeling of safety and security in terms of secondary school students education.

*Int3 spoke about safety and security issues:*

> *"I lost my boy during this violent conflict. I have no information regarding whether he was killed, kidnapped, or sold for children trafficking somewhere. After this, incident, we have left Tripoli permanently, it is unsafe and unsecure for my other family members. I also gave my resignation after two months of that incident especially when I lost my hope to recover my child. I do not want to lose my other children. I moved to a rental house and have been surviving very miserably for many years. I believe there is always more risk in face-to-face education, and it is the responsibility of education policy-makers to provide a solution that is affordable, safe, secure, and durable in the future"*

The armed groups became more confident due to poor co-ordination, instability and the provisional level of the government. During the period of 2011 to 2016, many schools were damaged due to attacks by armed groups. Resultantly, the motivation of students and teachers and school infrastructure have been damaged very badly. These armed groups also kidnapped some students for money, but the parents of these students were not in a position to fulfil their demands. This situation eventually restricted the educational activities and a number of male students joined these armed groups.

The first theme (i.e., safety and security issues and their impact on face-to-face education) has discussed murder, fear, uncomfortable environments, migration to other cities, kidnapping, failure of government and law enforcement agencies to offer security and safety and how these factors negatively influence the educational activities of secondary school students in face-to-face education. Participants shared their own stories as well as incidents that occurred with their students, families, and relatives related to safety and security of children. For example, an education officer shared overall experiences about the incidents in which secondary school children lost their lives and stated that after such incidents many parents were extremely afraid and as a result removed their children from education. Moreover, a teacher shared how his female student was kidnapped, sexually assaulted and brutally murdered by terrorists during the violent conflict. That teacher also told of how the attendance of female teachers and students decreased after that incident. Finally, a teacher shared a story about his realisation of insecurity in schools especially after he lost his son as he made his way back home after school one day. His family cannot find any information about him and they migrated permanently to another city.

A teacher shared how his beloved students died and how many were injured during this violent conflict in the southern cities. He also stated that women were sexually assaulted and kidnapped during the severe violent conflict. Such situation led many of the students to forego their education in favour of their survival. Overall, the majority of respondents have emphasised that there is no guarantee that these types of violent conflicts will not reoccur in Libya. Therefore, it is more effective to search for a permanent solution that can offer more safety and security to school students should these types of extreme violence return. Though the Libyan government has declared that it is compulsory for every person to receive primary andsecondary education, the emergence of violent conflict acts is a strong barrier to the achievement of this objective.

The destruction of homes, schools, utilities and services, etc., entails tremendous struggle on the part of the population, and requires huge resources and financing to improve the infrastructure which will not happen overnight. Life-threatening circumstances and damaged school infrastructures have caused many students to leave their schools, and indeed many have left their residential areas and are now living in government-provided temporary shelters. Though some parents are willing to restart the education of their children, they have no means to do that as public schools are closed and dangerous if open; and private schools which have better security are small in number and extremely expensive. Furthermore, such opinions show that people who have experienced violence in connection with school, will always remain uncertain about the safety and security of their children because they have first-hand experience of the horrors of murders and kidnappings

### 5.2.3 Sub theme 3: Damaged infrastructure and its impact on secondary school students

*Int38 shared thoughts about the school challenges:*

> *"I want to share how this violent conflict has damaged our school building, school buses, computer labs, books, uniform stock, furniture and many important other school items. This incident happened on a late night when two armed groups used heavy weapons on each other. After this, we could not continue the education as we no longer had enough financial resources to rebuild the school infrastructure again. Furthermore, there was a fear that if such incidents happened in daytime, we would have lost hundreds of students, teachers, and other staff"*

Participation mentioned that they have seen that many schools were completely or partially damaged in the cities of Benghazi and Tripoli. Many schoolteachers and students along with their families permanently left these cities due to unsafety. Some of the homeless families who have lost their assets in the conflict, used these partially damaged schools as shelters. Although the situation is now a little better, the Libyan government has limited resources as they are investing in giving primary necessities of life such as food, temporary shelter and health facilities. It is important that the government and educational department bring a solution which must work in these conditions.

*Int42 shared views about the school challenges:*

> *"There are many schools that could not function again after the heavy shelling in southern cities during the violent conflict. There are very few schools that are functioning now but these schools face many challenges such as limited teachers, high number of students, no fee affordability among students, limited capacity for adjusting huge number of students, and limited financial resources to offer salaries, books, and uniform without government support. There are many challenges to continuing the face-to-face education especially when many school buildings are damaged due to heavy shelling in southern cities"*

The participants believe that, these violent conflicts have created challenges which may not be solved in the next 10 to 20 years. For example, these violent conflicts have created issues like poverty, unemployment, no schooling, child labour, low affordability, limited functional schools, low number of teachers and other facilities. Participants claim that the government and other authorities can plan a transformation of education to means that use the internet so that more students can continue their education.

*Int17 discussed the challenges in public schools:*

> *"There are many schools, teachers, and students who could not continue educational activities in secondary schools because school buildings are*

*damaged in violent conflicts. I have a record of those teachers, staff, and
students who have lost their lives and some of them have been in the list of
missing persons from five to ten years. It is hard to acknowledge that
someone such as your teacher, classmate, or family member is not alive
after this violent conflict"*

In fact, Participant said that they have always admitted that the government, police, army, and other law enforcement agencies were unable to provide a comfortable environment in which teachers, students, parents, and other staff can believe that they are safe and secure. During violent conflict, some of our female students and teachers were kidnapped as they left our school for their homes. The armed groups raped one of our female students and then killed her. Resultantly, the absence rate of students has increased, and engagement levels decreased since 2011. It has been also heighted by the participants that safety and security issues can be resolved well through an e-learning system as it can offer multiple options to re-join the education sector in Libya, particularly in Southern areas. Participants believe that, the use of internet for education is more safe and secure when compared with face-to-face education as many children have left their schools for some period due to high security threats and limited safe schools.

*Int15 shared experiences about challenges in public schools:]*

*"I always feel worried when I remember how armed groups used heavy
shelling and damaged many school buses and some of the infrastructure of
our school. After that incident, many teachers including me are thankful to
Allah for saving our lives and we left our school, houses, and shifted in
temporary shelters for two to three years"*

The number of students, teachers, and school staff are lower than in public schools as these schools do not have enough resources to continue educational activities. Some of my students have left their studies because they cannot afford the fees of private schools and these children started labour shifts for survival. In fact, teachers have faced the worst situation and the government is still unable to bring any permanent solution because they do not have enough resources for repairing school buildings, teachers' salaries, free schooling, installation of ICT, books and other facilities. I think that, the recovery of secondary school infrastructure may require a number of years however policy makers have to think of how they can save the future of students who are the future of this country and economy.

The second theme (i.e., various challenges in schools and their impact on face-to-face education) has highlighted a number of obstacles that negatively influence the educational activities in secondary schools. For example, the majority of respondents have discussed how the fight among militia groups and their use of heavy shelling has damaged the infrastructure

in schools (i.e., computer labs, school buses, furniture, and building). This heavy shelling has also led to situations including: the death of some students and teachers, the kidnapping and disappearance of some teachers and students who are still listed as missing persons, the shift of other teachers and students to temporary shelters that are safer than residential houses, and the movement of teachers from public schools to private schools because public schools are unable to pay salaries. Some participants have discussed how the use of heavy shelling has negatively influenced teacher and student attendance as well as increasing the number of non- functional schools. Due to these challenges, many school students have started to work as child labour to help put food in their families' mouths. These children are unable to afford the fees of private schools because their parents have lost their assets during the violence.

Many students, staff and teachers have also migrated to other areas meaning that they cannot continue school activities. The respondents emphasised the insufficiency of financial resources for the reconstruction of damaged school buildings and there is no governmental support to restart schools. Other participants have shared their experiences regarding how they and their colleagues were recruited by private schools because public schools are unable to afford their salaries and they were living miserably in temporary shelters. They have the belief that it is not easy for the Libyan government to re-develop the school infrastructure - school buildings, teachers' salaries, school buses, minimum tuition fees, arrangement of books and uniforms at lower costs. Some of them said that the violent conflicts have raised certain challenges that may not be solved for several decades since they believe that it is difficult to arrange and invest financial resources that can redevelop the public infrastructure in such a limited time. They have said people are striving for food, employment, health facilities, sanitation, and other basic needs and, therefore, it is almost impossible for the government to do anything quickly to fix the physical infrastructure. Time management and insufficient financial resources have currently disengaged the students from their schools. Lack of employment and educational opportunities have led to increases in violent conflicts in Libya that in turn, increase crime rates. This situation has directed the attention of the government and relevant stakeholders towards the need to develop a secure and safe schooling system. Some have suggested that it is more compatible to develop an educational infrastructure that can be long lasting as well as function in the worst conditions. They have suggested that the government should invest in education via the internet so that more children can start their education in the presence of limited teachers and other educational facilities.

### 5.2.4  Sub theme 4: External challenges and their influence on secondary school education

*Int23 shared thoughts about damaged infrastructure and its impact on secondary school:*

> *"I have seen how the teachers, students, and their family members have lost their lives, houses, and shifted to live in public school buildings because they became homeless. In southern cities, violent conflict created extreme challenges as heavy shelling damaged the electricity supplies, internet facilities, school buildings, and public transport facilities for travelling. Due to these issues, the attendance of teachers and students decreased and some of them have permanently migrated to other cities"*

These conflicts even enormously damaged the infrastructure of our school and created unemployed teachers and limited educational opportunities. Now I am working in another public school and left that place due to extreme fear and the uncomfortable working environment. The government must start education by using recent technologies so that they can engage most possible amount of people who migrated to other cities or unable to adjust their job schedule for face- to-face education.

*Int24 talked about damaged infrastructure and its influence on school students:*

> *"There are very few functional schools in southern cities. There are many challenges which we are currently facing in secondary schools. Some schools have damaged buildings, some are overcrowded with students, few are functioning with limited number of teachers and other facilities".*

*Int25 talked about damaged infrastructure and its influence on school students:*

> *"Unfortunately, we have filled our brains with thoughts of challenges which forced us to discontinue the education among southern cities. For example, my house is partially damaged, and I lost the life of my boy during an attack on my home"*

Groups have destroyed the school building, electricity supplies, internet, sewerage system, and I lost my job. Then I had no place to live and my remaining family members and some people migrated into the shelters of international aid providing organizations. Then I started a temporary job in a private school with a very low pay. Participant concluded that they have created the worst condition for me, my family and other people in the community. As a result, many teachers and students have left schools and did not get the same opportunity again. Many public schools which are damaged and used as shelter for those who lost their houses and family members sin the violent conflict. These schools have issues of sanitation and sewerages and currently we are unable to invest lot of money as we lack enough financial resources.

*Int26 talked about the impact of damaged infrastructure on secondary school students:*

> *"To date, I am living in those cities which are damaged during the heavy use of weapons by militia groups. The Libyan government still cannot completely develop the infrastructure of electricity, internet, public school building, and public transport. Some areas even lack the complete facilities of sanitation and sewerage".*

The poverty is high, and people cannot afford private schools. Although public schools are affordable, the number of teachers are very few, and the number of students is very high. It has ben seen that some classes are overcrowded. During the worst conditions, we have seen how schools were closed and exams were cancelled. It has been identified that, now the education department has to create a permanent solution for recovering the education of secondary school students.

The third theme (i.e., damaged infrastructure and its impact on secondary school students) has discussed how the violent conflict has destroyed houses, electricity supplies, ICT infrastructure, public transport, sanitation and the sewerage system in southern cities. Many participants have shared their views regarding how they and their colleagues as well as families lost their houses and the lives of their loved ones. They have discussed that the use of weapons from militia groups and the army destroyed school buildings and houses. Due to this damage, they have no place to live and thus migrated to other cities or temporary shelters which have been given by the international aid-providing organizations. Some respondents have discussed how they and their colleagues have lost their jobs and children's schooling. Some of them have mentioned that shelter houses lack the complete arrangements for sanitation and sewerage. Most teachers have also suggested that there is no confirmation that these types of violent conflicts will not occur again in Libya. The Libyan government has been facing violent conflict over the last over years and has thus been left with insufficient human and financial resources to restart the classroom-based education system. This situation has also increased the number of disengaged students and unemployed teachers in Libya. The common issues that all developing countries usually encounter are limited electricity, lack of internet services, high illiteracy and crime rates and conflicts. All these factors negatively influence employment, economic development, and educational opportunities, as in Libya. The new Libyan government does not possess the resources required to redevelop the infrastructure which has been largely destroyed. However, the government is trying to restart the education system in areas that have been damaged by the violent conflict.

It has been found that most of the schools in the southern cities have poorly functioning electricity, computer labs, libraries, and Internet. Additionally, whilst there are large numbers of students and teachers who have their own PCs, the low speed of the Internet and high load shedding have negatively influenced e-learning efforts that have so far been made for secondary school students. The buildings of many damaged schools are acting as shelter for countless refugee families because they have lost everything during the violence, and although the government is making great efforts to safeguard their lives, these families are still facing many challenges such as shortage of water, food, proper shelters, and poor health. The unavailability of internet services and shortage of electricity in many areas has made it a dream for children to restart their education. Another issues raised by respondents is the need for the Libyan government and education officers to devise a more effective or permanent solution to learning that guarantees the safety and security now and will continue to do that in the unfortunate event that violent conflict were to occur again. Overall, interviewees believe that the violence has created so many financial, economic, and infrastructure challenges that the Libyan government will take many years to recover from the disaster, and that especially applies to the southern cities in the country.

## 5.3 MAIN THEME: CURRENT INFRASTRUCTURE AND BARRIERS TO INTRODUCE OF E-LEARNING

Int28 discussed the external challenges and thier impact on face-to-face education in secondary schools:

*"As many families have lost their homes and belongingness during armed group attacks, living in refugee camps was the ultimate option. Due to internal war, people lost their personal assets and the level of poverty has increased which ultimately brings inaffordability to restart the education of their children. Such families were not left with enough money to fulfil their basic needs like shelter, health or food, thus are completely unable to restart their education".*

In addition to the violent conflict, poverty and inadequate facilities (such as school building, electricity, salaries of teachers, internet) are other factors that strongly and negatively influence the educational efforts of government. Overall, the educational ministry requires a minimum of 10 to 20 years to reconstruct the public infrastructure again in the southern cities. However, we must bring short term investment and planning to fulfil the educational needs of secondary school students.

*Int7 shared how external challenges influence secondary school students:*

"We are living in a country which has a high level of poverty as well as terrorism and violent conflicts. These challenges are influencing the secondary student education as people of the southern cities have lost their personal assets in internal war and now, they are not getting enough government support to continue the educational activities for their children"

*Int2 discussed the external challenges and their impact on face-to-face education in secondary schools:*

*"I have seen that more than 80% of people in southern cities have lost their personal assets and financial saving during the last decade of internal war. They are unable to buy food and basic health facilities. On the other hand, the Libyan government has very limited financial funding to reconstruct and redevelop the whole infrastructure again"*

Due to high poverty people are striving for basic necessities of their lives as they have lost their houses and living in shelters which are very limited in southern cities. It has been identified that the redevelopment in this area may require a very long period as the Libyan government has limited aid and financial resources, It is not possible to quickly adjust the lives of all the homeless people in terms of health, education, food, and shelter especially in a country where there is high level of poverty. Further, the aid providing organization has limited funding as they cannot deliver everything needed. these people may suffer for longer periods especially in the context of restarting education again as they lack options.

The fourth sub-theme (i.e., external challenges and their influence on secondary school education) has explained how external challenges such as high poverty, loss of personal assets, lack of food, limited shelters, and low level of aid facilities are negatively influencing the educational activities of secondary school students, specifically in the southern cities of Libya. People have discussed how they have lost the lives of many students, colleagues and family members but also lost their financial and living resources because of the violent conflict in the country. This situation has destroyed infrastructure (including libraries, computer labs, school buildings, roads, electricity and internet) in many cities.

Participants have shared that many people became homeless and were forced to their residential and working places permanently. Furthermore, they are not prepared to return. The majority of interviewees believed that the government and other organizations could not quickly change the situation of all the homeless people in terms of health, education, food, and shelter especially in a country where there is high level of poverty. Indeed, the poverty level has increased, and people are unable to consider paying school fees. Findings also reveal that people have lost their personal assets and financial resources during violent conflict.

136

In fact, more than 80% of those who were made homeless are living in temporary shelters and some are striving to afford necessities such as shelter, food, health facilities, and clothes. In this crucial period, the government cannot immediately invest in a new educational infrastructure and must wait until financial support is forthcoming from international aid organizations or surplus income. And the belief is that it may take between 10 and 20 years for the entire national infrastructure to be recovered.

In the previous theme, the findings highlighted that the face-to-face education system has many challenges regarding safety and security, teachers and family migration, damaged infrastructure, inability to fulfil basic needs and lack of affordability. Due to these challenges, most of the participants indicated that the ecovery of the national (and educational) infrastructure with its properly planned and supported residential areas may take up to two decades. Furthermore, most people are living below the poverty line and the rate of child labour is very high.

It is also a fact that the number of public schools are very limited, and the vast majority of families are unable to afford the fees charged by the private education sector. It has also been found that after this violent conflict, it has become impossible for schools to rearrange the educational practices within secondary schools because of a critical shortage of trained teachers. Most teachers have either migrated away from their schools and moved to safer cities or have joined some other profession. Though the Libyan government has clearly declared that primary and secondary education is compulsory and free for everyone, educational activities cannot be continued due to damaged infrastructure, few functioning schools, the large number of students who need teaching, and very small numbers of trained teachers to do this.

On the other hand, before proposing e-learning as a suitable solution for this dilemma in secondary school education, it is very important to analyze the effectiveness of the available structure, to be absolutely sure that e-learning is a deliverable. Certainly, e-learning requires financial investment, but it does have the benefit of being able to engage people who are geographically distanced, especially those who are involved in child labour or those teachers who have joined private schools. After identifying the current infrastructure related to schools, the current study can recommend to the Libyan government a way to invest, plan, and develop e-learning practices provided that these are feasible and acceptable in society. Thus, it is important to determine the educational challenges of face-to-face education so the researcher can propose how e-learning can overcome them and be the best alternative in this situation.

The current study has six major themes which are: existing infrastructure, political and educational leadership, national culture and the literacy rate, curriculum and accrediting, motivation, and ability and skills as well as a large number of sub-themes, and various key-terms for creating complete discussion (Table 5-2).

*Table 5-2: Current infrastructure and barriers to the introduction of e-learning*

| Themes | Sub-themes and various key-terms |
|---|---|
| Existing infrastructure | Functional public schools |
| | Available public libraries |
| | Limited financial resources |
| | ICT awareness |
| | Electricity supplies |
| | Computer literacy |
| | Use of internet and Use of mobiles |
| | Parents and community thoughts |
| | Awareness among students |
| | Teacher views |
| | Education department support |
| | Teacher willingness and competencies |
| | Adopted in higher education |
| Political and educational leadership | International educational experts |
| | New education system |
| | Social pressure |
| | Limited teachers |
| | No wage or salaries |
| | Government control |
| | Political instability |
| | Limited future planning |
| | Economic crises |
| | High poverty |
| | Low investor trust |
| | High child labour |

| | |
|---|---|
| | Limited financial resources |
| | Basic needs |
| | More homeless people |
| | Low financial funds and attention to ICT |
| | Unfavourable relationship with neighbours |
| National culture and literacy rate | High uncertainty avoidance |
| | Lack of future planning |
| | More conflict |
| | Cultural inertia |
| | More power and influence |
| | Low use of technology |
| | Low ICT awareness |
| | Low level of education |
| | Under-developed ICT |
| | Infrastructure Limited computer labs |
| | Limited internet in rural areas |
| Curriculum and accrediting | New curriculum |
| | Up to date |
| | Skills and abilities |
| | More professionals |
| | Effective curriculum system |
| | Workshops |
| | Computer software |
| | Accrediting bodies and universities |
| Motivation | Need to motivate |
| | Teacher and other staff issues |
| | Transparency and accountability |
| | Teacher evaluation |
| | Salaries and bonuses |

| | Sense of responsibility |
| :---: | :---: |
| | Basic human needs |
| | Low awareness and encouragement |
| | Children's educational needs |
| Ability and skills | Advanced IT system |
| | Improving skills |
| | Afraid and unsupportive |
| | Need more investment |
| | No IT native |
| | More IT staff |
| | Training and development |
| | Online attendance |
| | Online teaching |
| | Evaluation |
| | Online educational content |

## 5.3.1 Sub theme 1: Existing infrastructure for developing e-learning among secondary school students

*Int12 discussed the suitability of the existing educational infrastructure:*

> *"Although there are some secondary schools working, they are not fully functional and have overcrowded classes. Most students and teachers have left because of limited financial resources and low level of salaries. Currently, we have very limited functional computer labs that have interrupted electricity supplies. The education ministry and other stakeholders can start e-learning practices, but they have to build more computer labs so that maximum teachers and students can engage in their free time"*

Int26 discussed infrastructure and e-learning:

> *"Some universities introduced undergraduate and graduate degrees using internet technologies. There are some private schools which recently launched this system, but it is expensive and not affordable for those who are struggling to fulfil their basic needs"*

Although students and teachers want to start secondary school education through the internet, they have limited financial budgets, employment opportunities, wage plans, computer labs, and

fee affordability. We have contact with many teachers who migrated and engaged in different professions due to violent conflict. First we have to arrange investment then we can to build a digital educational database as well as engage maximum teachers to restart the education. Although many students and teachers of public schools are very well aware of how to operate computers for educational purposes, there are too many problems which must be resolved before suggesting e-learning is suitable in this environment. For example, the government must invest more money to re-build computer labs and ICT infrastructure otherwise students lack financial resources and parental support. The government requires initially high funding to create digital educational resources and systems. Furthermore, they have to create training and awareness which can enhance acceptability among the students and teachers of the e-learning education.

Int15 shared views about infrastructure and e-learning:

*"Affordability and motivation levels are the main barriers to restarting any type of education in southern cities. The violent conflict has damaged school buildings, computer labs, teacher and student attendance, houses, and raised many other issues such as security, affordability and safety issues due to which students and teachers are not willing to restart their school activities. They are mentally disturbed because the violent conflict has totally damaged their career development opportunities, thus are unable to continue. Many students and teachers use mobiles and computers, and they are capable of learning and adapting to education over the internet"*

The first theme (i.e., existing infrastructure for developing e-learning among secondary school students) disclosed the real situation regarding the type of facilities that are available and what areas require special attention to enable the implementation of e-learning among secondary school students. Although the e-learning education system is very beneficial, the government still needs to rebuild computer labs, fast internet services, computer labs in public libraries, and digital interactive educational database to introduce e- learning as a solution. Furthermore, e-learning education requires the arrangement of informational sessions and training to increase the level of motivation, intention and awareness about adopting e-learning. However, currently the government has a very limited financial budget and the government is focused on providing water and food, sanitation and sewerage, roads, health facilities, and temporary shelters.

Participants have shared that there are very few functional public schools in the southern cities, and those that are open are facing substantial challenges such as overcrowded classes, limited seating facilities, limited numbers of teachers, and limited financial funds to pay those teachers. Currently many teachers have left their jobs due to the unattractive wages and lack of important facilities for teaching. Furthermore, they have shared that there are only a few functioning computer labs which are the main facilitators of e-learning

especially when students have no financial capability to buy their own computers. At the same time, the computer lab cannot function when there are interruptions to the electricity supply and internet services. The Libyan government is motivated to engage secondary school students, but educational activities cannot be continued in the face of limited future planning and restricted budgets, damaged infrastructure, few functioning schools, limited numbers of teachers, and the large number of students to be taught. However, as the use of mobile phones and PCs among both students and teachers is very high, there is good awareness among them of how to incorporate ICT in their education. Government investment in the creation of computer labs, in assuring fast internet services, and uninterrupted electricity is absolutelycrucial to restart schooling through an e-learning system.

The majority of respondents have stated that the existing infrastructure is not very supportive of education as there is low fee affordability, general inability to buy personal computers and internet services, issues of interrupted electricity, attrition of teachers through their movement into other professions, and child labour. Furthermore, the Libyan government is facing an economic crisis as it needs more funds to provide food, health facilities, health medicine, and basic education to those who are homeless and living in temporary shelters. Participants have suggested that the Libyan government should arrange financial resources and invest money to re-build computer labs, secure fast internet services, create computer labs in public libraries, and build a strong ICT infrastructure if it is serious about providing students with education, as students themselves cannot fund this.

## 5.3.2 Sub theme 2: Government planning and its impact on e-learning practices

*Int11 discussed the government planning and its impact on e-learning in schools:*

*"There are very few functional schools and these schools have limited teachers because most of the teachers have left their jobs due to insecurity, lack of safety and ineffective wage plans. The government control on public schools is also one reason why decisions are delayed, as well as more common use of traditional practices. The government has spent most of their budget on the basic needs of those who are homeless due to violent conflicts".*

*Int13 discussed government planning and its impact on e-learning:*

*"During the violent conflict, most well-qualified teachers moved to safe and secure areas and that is why we have been left with only a few qualified teachers. Even before this violent conflict, we had an insufficient number of qualified teachers to meet the educational requirements of the secondary*

*schools. In addition to that, a higher workload and lower wages from the government has further demotivated the staff and teachers".*

The Libyan government income and budget is not enough to reconstruct all the systems in a short period of time. There is high poverty and most children have left their schools because they are unable to afford food and health facilities. The instability of the government brings more challenges to the educational system and now they need huge investments if they want to start e-learning practices in secondary public schools. The major issues such as migration to some other cities, work overload, and limited buildings of public schools, limited teachers and staff may be solved through an e-learning system but it requires serious efforts and planning. Though we have intended to restart school activities online or physically, investment and time are required in both cases. In southern cities, many teachers and students have become detached from schools. Parents can fulfil their dream if the government develops an e-learning system and provides them with educational support at an affordable price. Reconstruction of the entire infrastructure within a limited time period is not possible as officials are primarily focused on providing water, sanitation, health, food, temporary shelter and clothes facilities. However, we have intended to adopt e-learning in the near future because it has potential to engage millions of students through the utilization of limited resources. However, time would be required to repair or reconstruct libraries, internet services and electricity in southern areas *Int1shared:*

"I believe that our political leadership should take immediate action towards a new education system because we only have one online education option".

Int2 said:

"The will of political leadership is one of the major issues"

Int30 shared views about government planning and its impact on e-learning in schools:

"As per my experiences, the political instability of the Libyan government, the conflict within the country, and the unfavourable relationship with international stakeholders have created more challenges for secondary school students. The ineffective government planning of safety and security as well as the inability of the government to provide a safe working environment bring challenges such as teacher disengagement, overcrowded classes, child labour, more conflicts, and high poverty.

Int8 stated:

"The ministry of education did very poor planning regarding the school education and I am sure this conflict is not going to resolve very soon so we must have a new solution in our hands."

143

Int27 said:

"Brother, do you think politicians are ready to deliver the education? I don't
think so! therefore, I believe that we should push the government to offer a
new system of education as you mentioned to offer them at home".

Int32 shared thoughts about government planning and its impact on e-learning in schools:

"Some of our students have left their schools because there are limited
public schools, teachers, and financial resources"

Int34 highlighted:

"I think the educational leadership have to work with international level experts to
offer a new education system".

Int23 stated:

"I believe that once we offer the best salaries and training programmes for our
staff, we can offer an online education system very easily rather than force them
towards a new system".

Int10 shared:

"You know that when we have everything which is required then we can force the
education system to work through a new online education system".

Int12 said:

"I would suggest they contact the international NGOs and international donors".

Int10 stated:

"I believe that our political government just put pressure on offering education,
indeed they should work on the ability, infrastructure and resource rather just
putting pressure, you know it's in our culture".

Due to high poverty in the aftermath of the violent conflict, people now struggle more for the
necessities of their lives as many lost their houses and livelihoods and are living in shelters
which are themselves very limited in the southern cities. The government has been focused on
satisfying other needs rather than the educational needs of residents in the southern cities. The
unavailability of electricity and internet facilities in many areas has made it a dream for children
to restart their education. Participants have stated that the Ministry of Education and
government will require a minimum of 10 to 20 years to reconstruct the public infrastructure.
The local community of Benghazi and Tripoli cities have seen obstacles such as limited

teachers, high numbers of students, no fee affordability among students, limited capacity for adjusting the huge number of students, and limited financial resources to offer salaries, books, and uniform without government support. It is also found that more than 80% of the families that have become homeless and are forced to live in temporary shelters are unable to afford necessities such as shelter, food, health facilities, and clothes. The participants have stated that in addition to losing the precious lives of many students, teachers, colleagues and family members they have also lost their financial and living resources which increases the challenges to the recommencement of school.

Additionally, political and educational leadership are challenges in the context of an e-learning system. A participant has shared that the political leadership is not ready to introduce an e-learning system and therefore greate social pressure is necessary for this initiative to gain more publicity and support. Another participant shared that it is more necessary to involve international educational experts because they can share their valuable experiences and help in the design of the best online educational system for secondary school students. It is suggested that the educational and political leadership must take immediate action to bring this system forward because traditional classroom education is no longer a safe option. Another respondent expressed frustration about the poor planning and management of the Ministry of Education which means that the recommencement of schooling cannot be achieved quickly. It is believed that international NGOs and donors can provide the help to develop the whole IT infrastructure for an e-learning system, and therefore, it is the responsibility of political and educational leadership to contact these organizations if the government has insufficient resources for the project.

These challenges require more attention otherwise the Libyan government cannot restart the educational activities among secondary public schools in Libya. The previous Libyan government, police, army, and other law enforcement agencies could not provide safety and security. Therefore, teachers have left these cities and even e-learning formulation and implementation cannot be successful unless the government invests money and shows positive interest and financial efforts. These students cannot afford the fees of private schools and these children started labour shifts for survival. Further, the government spend most of their financial resources in the fight against armed groups as well as generating food, health, and temporary shelters for those who have lost everything in this war. In fact, families, students, teachers have faced the very worst situation in the context of restarting education and we are unable to bring any permanent solution because the government has insufficient resources for repairing school buildings, and providing teacher salaries, free schooling, installation of ICT, books and other

facilities. I think the government must make a plan regarding how they can accumulate a bigger budget to develop educational infrastructures inclusive of teacher recruitment, wage plan, technical expertise, electricity and net, and digital database before introducing e-learning."

Int34 highlighted:

*"I think the educational leadership have to work with international level experts to offer a new education system".*

*Int23 stated:*

*"I believe that once we offer the best salaries and training programmes for our staff, we can offer an online education system very easily rather than force them towards a new system".*

*Int10 shared:*

*"You know that when we have everything which is required then we can force the education system to work through a new online education system".*

*Int12 said:*

*"I would suggest they contact the international NGOs and international donors".*

*Int10 stated:*

*"I believe that our political government just put pressure on offering education, indeed they should work on the ability, infrastructure and resource rather just putting pressure, you know it's in our culture".*

Due to high poverty in the aftermath of the violent conflict, people now struggle more for the necessities of their lives as many lost their houses and livelihoods and are living in shelters which are themselves very limited in the southern cities. The government has been focused on satisfying other needs rather than the educational needs of residents in the southern cities. The unavailability of electricity and internet facilities in many areas has made it a dream for children to restart their education. Participants have stated that the Ministry of Education and government will require a minimum of 10 to 20 years to reconstruct the public infrastructure. The local community of Benghazi and Tripoli cities have seen obstacles such as limited teachers, high numbers of students, no fee affordability among students, limited capacity for adjusting the huge number of students, and limited financial resources to offer salaries, books, and uniform without government support. It is also found that more than 80% of the families that have become homeless and are forced to live in temporary shelters are unable to afford necessities such as shelter, food, health facilities, and clothes. The participants have stated that in addition to losing the precious lives of many students, teachers, colleagues and family members they have also lost their financial and living resources which increases the challenges to the recommencement of school.

Additionally, political and educational leadership are challenges in the context of an e-learning system. A participant has shared that the political leadership is not ready to introduce an e-learning system and therefore greate social pressure is necessary for this initiative to gain more publicity and support. Another participant shared that it is more necessary to involve international educational experts because they can share their valuable experiences and help in the design of the best online educational system for secondary school students. It is suggested that the educational and political leadership must take immediate action to bring this system forward because traditional classroom education is no longer a safe option. Another respondent expressed frustration about the poor planning and management of the Ministry of Education which means that the recommencement of schooling cannot be achieved quickly. It is believed that international NGOs and donors can provide the help to develop the whole IT infrastructure for an e-learning system, and therefore, it is the responsibility of political and educational leadership to contact these organizations if the government has insufficient resources for the project.

### 5.3.3  Sub theme 3: National culture and literacy rate and their impact on e-learning practices

Int35 discussed national culture and literacy in southern cities:

*"Unfortunately, our national culture is more focused on the development of the government control on the public sector organizations such as public schools. Yet the Libyan government still does not have healthy relationships with international powers, funding organizations, neighbour countries, and with independent armed forces and therefore they are unable to get foreign investors as well as funding organizations to support the development of educational infrastructure.*

Int43 shared thoughts about national culture and literacy in southern cities:

*"The cultural inertia is one of the biggest challenges especially when there are more uneducated people, low level of technology use, high resistance to social and educational changes"*

There is no guarantee that violent conflict will not occur again as there are high street crimes and other terrorist activities. In public schools, there is a limited use of ICT because the government lacks financial resources to redevelop and restructure computer labs. In this situation e-learning is the best option because it is secure and safe and does not require any physical availability, particularly in places that are at relatively high risk. But there is limited planning for the future and therefore many children and teachers have left these public schools.

These types of challenges can create more barriers that hinder the implementation of ICT infrastructure for secondary school students. In southern cities, there are more load-shedding issues, low level of internet accessibility and speed, and lack of public libraries. Furthermore, most families are struggling to get their basic needs so how can they think of continuing the education of their children when they are not able to afford their basic needs. Language understanding and training is thus very essential for readiness and creating openness for this e-learning system.

*Int42 shared views regarding national culture and the literacy rate:*

*"Excessive damage to public infrastructure is one of the main barriers to restarting online education. Teachers and students who have left their schools many years ago and are now unemployed or not in education are more interested in an e- learning system"*

*Int36 shared experiences about national culture and the literacy rate and their impact on e-learning:*

*"The structure and culture of public schools are not very supportive as compared to private schools in Libya. For example, private schools have more use of ICT, higher tuition fees, more teachers but limited numbers of students due to affordability and high level of poverty. On the other hand, public school teachers are very limited and lack awareness of and ability in the use of ICT in educational activities"*

The government cannot provide a class-based education system because it needs teacher availability, schoolbooks, teacher salaries, school uniform and a school building for which enough financial resources are required. Contrary to that, e-learning is the best and affordable option; however, it also requires more efforts, planning and investment to develop digital educational resources, teacher recruitment, engagement, training, awareness and social support to use ICT as an educational tool among secondary school students. I knew that E-learning requires less resources, efforts, and cost, but it gives more safety and security than class- based education, therefore it is considered as best solution in this regard. However, limited budget, training and awareness are major obstacles due to which this system is still not adopted or successfully implemented in Libya. Other issues include more use of local language and low use of English which is more suitable for education through e-learning. The education of public school teachers is also limited as most of the good teachers have left the job during the violent conflict. We are interested in starting e-learning education due to the safety and security issues, but it requires higher investments in the development of ICT infrastructure, educational resources, salaries and engagement of teachers, technical staff, and training to learn and adopt ICT in educational context.

The third theme (i.e., national culture and literacy rate and their impact on e-learning practices) found that Libyan national culture is based on some common features that negatively influence the structure, culture, performance, and development of secondary public schools in Libya. Participants have highlighted various national culture and literacy-related challenges that can negatively influence the efforts of e-learning among secondary students. These challenges include high uncertainty avoidance, lack of future planning, more conflict, cultural inertia, more power and influence, low use of technology, low ICT awareness, low level of education, under-developed ICT Infrastructure, limited computer labs, and limited internet services in rural areas. Findings reveal that the Libyan government is unable to develop the infrastructure of ICT in public schools.

On the other hand, private schools are more advanced, developed, and have a high use of ICT but these are not affordable for those who are living below the poverty line. It has been found that although the Libyan government has limited investment for the re-development of infrastructure in public schools, e-learning can be considered the best option in such situations because it has the ability to engage maximum numbers of students with a one-time investment and limited resources. This system initially requires fundamental training in order to develop understanding amongst students and teachers.

If the Libyan democratic government continues to fail to create relationships with international powers, funding organizations, neighbour countries, and with independent armed forces they will continue to be unable to obtain support from outside agencies to help reconstruct the nation. In the southern cities, e-learning cannot be introduced until the Libyan government invests huge amounts to secure uninterrupted electricity supplies, computer labs, engagement of students and teachers, and fast internet. The cultural inertia is creating more resistance because most public schools are using traditional practices for education and the Libyan community has more uneducated people, low level of technology use, high resistance to social and educational changes, and more conflict. It has been found that the local language and insufficient technical expertise are also major barriers to adopt and successfully implement an e-learning system. Through better understanding of language and proper training, the intention can be developed among secondary school stakeholders to adopt an e-learning system. The researcher intends to develop an e-learning system in different languages in order to eliminate the dependency of students and teachers on the Arabic language which means that it is not easy to create awareness and engagement with e-learning tools. Although e-learning can be more effective, it requires planning of technical expertise, digital educational database, student and teacher engagement, and advanced computer labs.

### 5.3.4 Main theme 4: Curriculum and accreditation as barriers to the introduction of an e-learning system

*Int19 stated:*

*"I must say that we have to offer a new curriculum through this new online system. The previous curriculum is not up to date and is unable to offer skills and abilities which are required in online education. I think we need to involve more professionals to design the best education content for online education."*

*Int35 shared:*

*"You know that the previous curriculum would not work for this online education system, so we have to offer an effective curriculum system for the secondary school. I think workshops are required on the tools required for online education".*

*Int14 highlighted:*

*"We have to work with all stakeholders to develop new curriculum and to produce new skills for an online education system. For example, our students lack skills for MS office and other skills related to computer software which can enhance the level of difficulties."*

*A 43 year old education officer said:*

*"We also need also need to have the universities on board because this education must be accredited by the different accrediting bodies and universities otherwise it would be another disaster".*

This theme has highlighted the issue regarding the curriculum and accrediting of post-secondary schools. Most of the participants agreed that the there is a high need to develop a new curriculum because the existing one is unable to offer subjects that will develop the abilities and skills required for online education. They also agreed that the existing curriculum is unable to address the needs of students. One participant has stated that students are not very competent regarding the operation of MS office and lack other relevant skills which are essential for the success of online education. Therefore, they have mentioned that there is a need to introduce more workshops which can educate individuals and facilitate their use of an e-learning system. The participant also mentioned that there is a need to involve more professionals from universities and other sectors so that they can design a curriculum which can fulfil the needs of higher education as well as developing the skills required in the job market. It has become essential to gain accreditation from, and the support of universities and boards because the curriculum and educational system must be acceptable and transparent for all stakeholders.

### 5.3.5 Main theme 5: Lack of motivation as a barrier to the introduction of an e-learning system

*Int20 stated:*

> *"I think we need to motivate our teachers to deliver education through a new e-learning platform".*

*Int22 said:*

> *"I believe that there would be teacher and other staff issues because they have been away from their jobs for a long time. I think an online system has more transparency and accountability for teachers".*

*Int28 has discussed:*

> *"As per my opinion my teachers would be scared of the new system because it would involve a new system for teacher evaluation and therefore, we need to offer the best package for them. I would also like to add that we should offer good salaries and bonuses for the education staff that would work well to offer education through a new online education system".*

*Int42 stated:*

> *"I think we need to motivate the whole education department with the sense of responsibility to provide basic human needs for our children".*

*Int44 stated:*

> *"I think the political leadership are not well aware about that new e-learning system, so we have to encourage them toward this system".*

*Int40 shared:*

> *"As per my point of view, parents and students are very discouraged towards education because of their current circumstance".*

*Int36 shared views:*

> *"I would like to suggest we have work to do as a whole community to offer this new education system and fulfil the basic education needs of children".*

This theme has highlighted the motivational issues which can negatively influence the implementation process of an e-learning system in Libya. Respondents have shared that up to this point in time, teachers have not been very motivated to adopt this system. There is a need to introduce more financial and non-financial rewards which can boost the motivation of teachers to want to engage with e-learning and push them into providing more support to implement this system. It has also been found that some teachers are afraid of online systems because they can create more transparency and accountability during job evaluation and online task handling. A lack of responsibility in the whole education department has also been found,

that demonstrates officials have been careless and avoided taking immediate actions regarding the schooling of children. One of the participants shared the opinion that the political leadership is not aware of the benefits of e-learning systems. The information sharing and level of awareness in political leadership can also enhance motivation and support for an e-learning system. Another participant said there is a need to create motivation within the community and raise awareness of how an e-learning system is effective and is able to fulfil educational needs without compromising the security and safety of children. Further, many teachers have left their jobs and there is consequently a need to instil within them a strong motivation to restart education. Finally, one participant observed that both students and parents have many other issues which they prioritise over education, and therefore their motivation to recommence schooling is absent.

## 5.3.6  Main theme 6: Abilities and skills required for introducing e-learning system

*Int34 stated:*

> *"In my opinion our teachers are not ready to provide education through an advanced IT system because they don't have that many advanced skills. So, they are afraid and unsupportive".*

> *Int33 has said:*

> *"We have to spend a lot of money to improve our staff skills to offer education through the new system you mentioned".*

> *Int32 shared:*

> *"There are many teachers who are not IT native; therefore, I think we have to hire some new staff for this".*

> *Int40 said:*

> *"We also need sufficient IT staff to manage this much bigger system".*

> *Int31 stated:*

> *"Our teachers should also know how to use this new system, so they need training regarding online attendance, teaching, evaluation and curriculum."*

This theme has highlighted the challenges brought by the lack of skills and abilities which are required in the successful implementation of an e-learning system. One of the participants has stated that teachers lack the advanced skills required to implement an e-learning system and are therefore reluctant to support the call for one. Another participant has suggested that more investment is required to improve staff skills as there are many teachers working in the face-to-

face schooling system who lack awareness of how to operate computer systems and therefore do not have the basic skills; consequently more investments and efforts are required to train both teachers and students. A participant also stated that the teaching of many things is required to successfully implement this system, and this includes training regarding attendance, teaching, evaluation, and curriculum. Currently, there is a lack of IT experts who can provide help to manage online educational content and the system of e-learning.

## 5.4 ENABLERS AND BENEFITS OF E-LEARNING IN A SITUATION OF EDUCATIONAL CRISIS

In the previous two main themes, the present study has analyzed the barriers that are negatively influencing the delivery of face-to-face education among secondary school students in the southern cities of Libya. These barriers are related to safety and security, damaged infrastructure of secondary schools, limited financial investments, limited functional schools, and high poverty and unaffordability to restart education. Furthermore, the present study has also analyzed the current educational infrastructure and the extent to which it can support the development of e-learning practices. The understanding of the existing educational infrastructure is important especially when the present study focuses on the effectiveness of the available structure before understanding that e-learning can be a suitable solution for secondary school students. There are many challenges in the existing infrastructure that require the attention of stakeholders. This study has taken into account that the power distance, political instability, political conflicts, low investors, uncomfortable environment, improper relationship with international forces, and limited use of ICT challenge the restarting of education in secondary schools. In the light of this discussion, the present study aims to establish the enablers of introducing and implementing the e-learning system and to demonstrate how an e-learning system is the best solution given the strong challenges brought by poor safety and security, violent conflicts, and high crime rates. Under this theme, the role of the government, planning regarding ICT, motivation and awareness, and enhancing the awareness on benefits of e-learning in the presence of limited resources and other challenges are included.

The current study has five major themes which are: political government planning and investment, focus on ICT and training, motivation and awareness, benefits of e-learning and the media role as well as a large number of various key terms for a complete discussion (Table 5-3).

*Table 5-3: Enablers and benefits of e-learning in a situation of educational crisis*

| Codes | Keywords |
|---|---|
| Political government planning and investment | Safety and security |
| | Offer of investment plan |
| | Attracting private investors |
| | Engage international donors |
| | Focus on rural areas |
| | Engage higher education experts |
| | Offer effective wage plan |
| | Minimize cultural inertia |
| | Engage homeless families |
| | Engage and support child labour |
| | Uninterrupted electricity supplies |
| | Invest in fast internet services |
| | Introduce scholarships |
| | Optimal use of resources |
| | Hybrid education systems |
| Focus on ICT and training | Develop ICT infrastructure |
| | Invest in computer labs |
| | Develop educational database |
| | Hire technical experts |
| | Develop computer literacy |
| | Focus on electricity supplies |
| | Fast internet services |
| | More ICT training |
| | Develop technical skills |

| | |
|---|---|
| | Develop language options |
| | Focus on the English language |
| Motivation and Awareness | Enhance public motivation |
| | Create social support |
| | Positive perception and consensus |
| | Enhance parental awareness |
| | Seminars on e-learning |
| | Advertisement for awareness |
| | Engage volunteers |
| | Engage migrated teachers |
| | Engage students |
| Benefits of e-learning | High safety and security |
| | Usefulness of limited resources |
| | Usefulness of violent conflicts |
| | Enhance technology use |
| | Cover maximum students |
| | Flexible hours |
| | Maximum geographical area |
| | Optimal use of resources |
| | Accountability and transparency |
| | Low level of cost |
| | More affordable |
| | Teacher engagement |
| | Increase technical skills |
| | Develop computer literacy |
| | Time and money saving |

| | Systematic performance evaluation |
|---|---|
| Media role | Social pressure |
| | Alternative education system |
| | Social awareness |
| | Advertisement |
| | Talk shows |
| | Celebrity involvement |
| | Media collaboration |
| | Common education goals |
| | Social media influence |
| | Ministry of education |

### 5.4.1 Sub theme 1: Political government planning and investment in introducing e-learning in secondary schools in Libya

Int23 shared experience about the role of government support in developing e-learning in schools:

*"The formulation of an e-learning system can create more safety and security for those families who have seen murders, innocent killings, bomb blasts, kidnapping, and rape during face-to-face education in secondary schools. However, the role of government is very important, as the Libyan government has very limited financial resources and they cannot redevelop the infrastructure of computer labs, and enable uninterrupted electricity in rural areas, digital data base system and faster internet services"*

Int25 highlighted how the Libyan government can help to develop e-learning in schools:

*"Due to a high level of poverty, there are more crimes and more chances that the violent conflict can come again, and it can again negatively influence the face-to-face education even if government tries to build the full physical educational infrastructure again"*

Participants said that the government must attract private investors by offering higher profit rates as well as safety and security to their investments. The government can take help from those experts who supported the building of the e-learning system in universities. These people

can create a complete roadmap and strategies that may be helpful in building an effective e-learning system with the use of the limited resources. Nowadays, the trend of using PCs and mobiles among teachers and students of secondary school is at a peak. Furthermore, most students have started child labour and many are from the families that have become homeless especially in the rural areas as they have faced more challenges after the violent conflict. The government should engage private investors and international funders with the purpose to create a hybrid education system (mixture of e-learning and face-to-face education). By developing a hybrid education system, those students and teachers who have left schools and working can also be engaged. Furthermore, this system can be supportive for those parents who have lost loved ones and other assets in violent conflicts and therefore it is suitable for those who may not be mentally ready to have their children restart face-to-face education. The government must engage the IT experts from higher education so that they can offer a solution to how they can efficiently utilize the available resources to develop an education plan for those who have left their education. Therefore, if the government introduces an e-learning system at an affordable rate then they will be ready to immediately restart their education without any delay.

Furthermore, the government can ask for help from foreign aid providers by ensuring the development of the e-learning system in Libya for secondary school students. Initially, it is very important to engage teachers and students by highlighting how an e-learning system is more suitable and supportive for creating opportunities in their careers.

Int30 discussed the role of the government in fostering e-learning in schools:

*"The concentration and counselling of the Libyan government with the private national and international investors as well as different foreign aid providers may enable the generation of electricity supplies, public libraries, computer labs, faster internet services and low tuition fees. Most of the people are homeless and unable to afford basic needs. Therefore, an e-learning system will enable the students to restart their secondary education via the internet at affordable rates or with scholarships; otherwise they will have no other option for restarting their education after the violent conflict"*

Int11 talked about the role of the government in fostering e-learning in schools:

*"To restart any type of education (i.e., face-to-face or e-learning), it is required that the government develops infrastructure inclusive of computer labs, roads, electricity in rural areas, safety and security, effective wage plan for teachers, scholarship and low tuition fee".*

The main and important challenge is to reconstruct computer labs and improve the electricity system so that public schools can provide maximum opportunities to our children to resume their schooling or education in Libya. I think e-learning is the only possible solution that can address the challenges of limited teachers, high number of students, no fee affordability among

students, limited capacity for adjusting the huge number of students, and limited financial resources to offer salaries, books, and uniform without government support. Using an e-learning system, the government can engage maximum teachers and students who have left their place and are living in shelters or other cities. Most people have lost everything in the violences, and they are living by hand-to-mouth means; therefore it is not possible that they can afford the tuition fee and other expenses of schooling. Most of the migrated teachers and children started to earn to sustain their livelihood. Therefore, without governmental support, it is not possible that maximum students and teachers re- engage for educational purpose in public schools. Further, Libya has failed to develop a good connection with international powers, funding organizations, neighbour countries, and with independent armed forces. Therefore, the government is unable to generate maximum funding for those families who are homeless and struggling to fulfil their basic needs. It is very important that the government provides protection and security to private investors and share the maximum percentage with them because it is the only way to re-develop ICT for education purposes. Therefore, it is important that we should develop the basic infrastructure so that people can get more opportunities for learning and earning. Without developing public libraries and computer labs, we cannot eliminate the cultural inertia especially in the rural areas of the southern cities. Violent conflict has raised security, affordability and safety issues due to which students and teachers are not willing to restart their school activities. They are mentally disturbed because violent conflict has totally damaged their precious thing – education – and are thus unable to continue. Though an e-learning education system is very beneficial, the government still needs to arrange informational sessions and training to increase the level of motivation, intention and awareness regarding the adoption of e-learning. I personally recommend that we focus on developing the intention to adopt and implement e-learning as it is affordable, durable, safe and enables a flexible time schedule.

Int9 discussed the role of the government in fostering e-learning in schools:

*"In southern cities, rural areas have more challenges such as limited education opportunities, electric load shedding, damaged schools, crime rates, low-income families, limited teachers, overcrowded classes, child labour and lack of governmental support. The people are not very well educated and have low levels of awareness about technology use"*

The first theme has discussed the importance of government planning and investment with the purpose of restarting education with a hybrid learning system (i.e., e-learning and face-to-face education). There are many challenges which have been highlighted by the participants which must be resolved fully or partially. Without the support of the government, it is not possible to restart any type of education especially in those areas in which people are struggling to get food,

water, sanitation, sewerage facilities, functional roads, and health-related facilities. Most people are facing a high level of poverty and therefore child labour is very common in homeless

families. On the other hand, the Libyan government has limited financial resources to fulfil basic needs, and thus it lacks the required resources to support the infrastructure for face-to-face education or the infrastructure of e-learning facilities such as computer labs, public libraries, and digital educational database. The majority of respondents have recommended that e-learning is more suitable especially when there are high crime rates, low levels of safety and security, literacy, and endemic poverty. It is very important that the Libyan government takes immediate action to raise the level of education so that more people can find jobs and contribute to the economic development of Libya. Initially, the Libyan government must introduce scholarships for those students whose families are homeless, and living below the poverty line.

Most respondents have suggested that the Libyan government should attract private national and international investors, international funding organizations, and NGOs with the purpose to take financial support and develop the educational infrastructure for online education. By creating an online education system, the government can engage those students who have left their studies for child labour. There should be more political stability and a comfortable business environment that can allow people to believe that the violent conflict will not reoccur. Otherwise investors will not take interest in such projects as they fear financial losses. The government must show an attractive wage plan for those teachers who have left this profession and migrated to other cities to save their lives during violent conflict. Further, some respondents have argued that the government should engage the technical experts from higher education so that they can develop the educational infrastructure by the optimal use of limited resources. They all agreed that nothing confirms that violent conflicts will not occur again in Libyan cities especially due to the way crime rates and insecurity are increasing. Therefore, it is more suitable that the government creates a system which can work effectively in such situations..

## 5.4.2 Sub theme 2: Enhanced focus on ICT and training for introducing e-learning in secondary schools in Libya

Int8 shared thoughts about the role of ICT and training in introducing e-learning:

*"There is a great need to redevelop ICT infrastructure by enhancing the speed of the internet, reconstructing computer labs and improving the electricity system so that we can provide maximum opportunities to our children to resume their schooling especially in the southern cities of Libya. The government must invest money to hire IT experts who can build an e-learning database with the support of teachers.*

Int38 exchanged thoughts regarding the role of ICT and training for an e-learning system:

*"The government and ministry are now showing greater interest to develop an e- learning system in those areas where there are more challenges about safety and security, high crime rates, poverty, and unaffordability of people. There are several meetings which have been held in the presence of education ministry people, education officers, and headteachers of schools about learning through the internet".*

Mostly, schools taught and learned education in the Arabic language. Though we can understand the English language, its usage is bounded to a few subjects such as the internet and mobile. Designing an e-learning system in both English and Arabic will enable the students to learn this latest technology in languages of both the developed and developing world. Moreover, this will also open scholarships and other opportunities for students outside and within the country. In the future, there will be a need to conduct training for both teachers and students regarding the use of computers for e-learning purposes. The training and motivational sessions can create better awareness about the benefits and use of an e-learning system among the students of secondary schools in Libya. The government must involve the people from higher education which may be helpful in the development of an online learning system for secondary schools. e-learning is very good as there is an increasing trend among people to learn various technological skills and languages because it will create maximum job and education opportunities for them across the particular geographical boundaries. Therefore, designing an online education system in both English and Arabic is very important because it will provide great opportunities to students to get online admission and complete higher education from universities and colleges of other well reputed countries.

Int43 discussed how the focus on ICT infrastructure can create chances for the adoption of an e-learning system:

*"We are involved in counselling and meetings with the support of the government with different foreign aid providers regarding the development of ICT infrastructure to create an e-learning system for secondary school students. We are focusing on the development of an e-learning system which may be supportive for both the English and Arabic languages. It will enable the students to restart their secondary education via the internet at affordable rates or with scholarships. By designing an effective e-learning system, we can easily overcome the problems of overcrowded classes, child labour, limited employment opportunities, and limited teachers."*

Int42 shared views on how the focus on ICT infrastructure can create chances for the adoption of e-learning:

*"A few of my beloved students died and the majority got injured during this violent conflict in the city where I lived. Some of the female students were sexually assaulted and kidnapped*

*during severe violent conflict. Such situations led many of my students to leave their education permanently".*

The second theme (i.e., enhanced focus on ICT and training to introduce e-learning in secondary schools in Libya) has discussed how the various stakeholders may help to develop the ICT infrastructure. Most respondents have suggested that the government should invest in computer labs, develop an educational database, hire technical experts, fast internet services and more ICT training. Thus, I personally recommend that the government should adopt an e-learning system because it is not only a more secure and safe learning option but can also motivate those who have permanently left their education due to lack of security and travelling. However, the government, schools, and investors have to conduct meetings regarding how we can hire IT experts and teachers with the purpose to create an ICT infrastructure for secondary schools. There is no doubt that e-learning is considered the best option because it has potential to overcome the problems of limited teachers, damaged school buildings and low levels of engagement amongst students of secondary schools in Libya. In our previous meetings with the officials of the education department, they have said that they are trying to accumulate resources with the purpose to initially develop a fast internet system, reconstruct computer labs and improve the electricity system so that we can provide maximum opportunities to our children to resume their schooling in Libya.

Without attention to these critical success factors, the government cannot hope to successfully develop a system which may be beneficial for unfavourable circumstances. Most of the participants have suggested that the Libyan government can increase the level of motivation and awareness among parents, teachers and students by arranging informational sessions about what key skills are necessary to successfully and effectively incorporate new changes within the education system and what benefits they can yield from an e-learning system. Designing an e-learning system at an affordable cost is very important because people already lack funds to fulfil basic needs. The Libyan government must conduct training and motivational sessions on the e-learning system and highlight among people how it is affordable, durable, safe and offers a flexible time schedule. The majority of interviewees asked for an e-learning system which can be supportive of both the Arabic and the English language. They also argued that the development of an e-learning system in several languages may be useful in availing educational opportunities in developed countries.

Participants have revealed that people from the education ministry, education officers, and headteachers of public schools have conducted several meetings in which they have tried to discuss how they can develop an ICT infrastructure to develop the face-to-face education as

well as an e-learning system for those students who are living far away, homeless, or engage in earning for their family survival. They have suggested that the government must engage IT experts and teachers so that they can develop an online database system to develop e-learning practices as soon as possible in the southern cities. All the respondents are fully confident that only an e-learning education system is worth considering as an option for restarting education because it has potential to overcome the problems of limited teachers, travelling in unsafe areas, damaged school buildings, limited budget, child labour and the low level of engagement amongst students of secondary schools.

Respondents suggested that the e-learning system should operate with minimum costs and affordable fees as most families are living below the poverty line. Headteachers have revealed that the government has started to spend small portions of money with the purpose of developing public libraries, computer labs, electricity supplies, and fast internet services. Furthermore, the government is also focused on obtaining the help of experts within higher education so that they can conduct computer and e-learning awareness training, and provide the required technical skills.

### 5.4.3 Sub theme 3: Create and enhance motivation and awareness about e-learning education

Int31 discussed increasing the motivation and awareness of the e-learning system:

*"As we have a strong intention to build an e-learning system in the upcoming period, before launching a new educational system, it is very important that we address how to enhance public motivation and create openness to accept these changes".*

Int11 shared views on how they can increase awareness and motivation to adopt the e-learning system:

*"Initially, there is a limited budget and limited support of experts to build an e- learning system. Therefore, we must focus on resources such as volunteers, migrated teachers, and other experts who can support this educational system by taking minimum reward for their efforts. We must engage IT experts and teachers so that they can develop an online database system to develop e-learning practices as soon as possible in southern cities."*

Int11 shared views:

*"Before the formulation and implementation of an e-learning system, it is very important that we can increase the level of motivation and awareness among parents, teachers and students by arranging informational sessions about what key skills are necessary to successfully and effectively incorporate new changes within the education system and what benefits they can yield from e-learning"*

We must conduct seminars and motivational sessions to create public awareness about the acceptance of the e-learning system. We have a strong intention to enhance awareness through training, informational sessions, workshops, incentives, perceived benefits associated with the e-learning system, knowledge sharing, and government support that can motivate all stakeholders towards the adoption, support, and implementation of the e-learning educational system in Libya. Due to insufficient financial resources, schools cannot offer training opportunities and competitive packages to re-join the education sector. It is very important that the government conducts meetings with different stakeholders with the purpose to generate a financial budget as well as funding to restart the secondary school education especially in the southern cities of Libya. These motivational sessions can create awareness regarding how e-learning system implementation can get better awareness and support from parents and other stakeholders. The educational ministry must search for a permanent solution that can offer more safety and security to school students if these types of extreme violent conflicts occurred again. Although some private schools have introduced both e-learning as well as face-to-face education but it is not affordable for all as most people are homeless and cannot earn money.

Int35 shared thoughts about how we can increase the motivation and awareness of e-learning:

*"After seeing the massive crises of the face-to-face educational infrastructure such as school buildings, teacher salaries, school buses, minimum tuition fee, arrangement of books and uniforms at affordable prices."*

Int34 shared views about motivation and awareness regarding the e-learning system:

*"Most of the industries, business organizations, Libyan ports, oil refineries, public schools, hospitals and other businesses have been damaged due to violent conflicts. As a result of this destruction, many families have lost their earnings and migrated to other cities in temporary shelters where there are also severe challenges of residence, sewerage, and more".*

Now if the government can invest in an educational infrastructure which is more safe and secure then more people can take benefits without travelling and moving towards uncertain areas. Before launching this system, we have to engage parents, teachers and students by arranging informational sessions about what key skills are necessary to successfully and effectively incorporate new changes within the education system. We must discus the benefits of the e-learning system so that more teachers, volunteers, IT experts, and students show positivity towards the adoption of it.

In the third theme, participants gave their views regarding how an e-learning system can be effective especially when public schools are facing the challenges of poor security and safety, high crime rates in the southern cities, migration of teachers, and damaged school infrastructure. However, they all argued that it is very important that the government arranges financial

resources and hires those who can develop and support the e-learning system. Participants suggested the engagement of migrated teachers, children working, volunteers, and other stakeholders so that they are made aware of how the e-learning system is more secure, safe, and affordable compared to face-to face-education. Most of the organizations and industries have closed during the violent conflicts and people have very limited resources. It is desirable for an e-learning system to be launched by creating social awareness, social support, and social consensus regarding how such a system is more effective especially in those areas where there are kidnappings, murders, high crime rates, and fear about terrorist activities. In fact, e-learning is the only educational system that can address the needs of those students and teachers who have busy work schedules but want to continue their studies without making compromises regarding their professional commitments. Before the successful implementation of the system, it is important to highlight the benefits of e-learning to create more motivation and acceptance of it in the community. Respondents have also suggested arranging motivational sessions with the purpose of creating awareness about the benefits of e-learning especially in those areas which have completely damaged educational infrastructure for face- to-face education.

### 5.4.4  Sub theme 4: Create awareness about the benefits of e-learning in insecure areas

Int36 shared thoughts about the benefits of the e-learning system:

> *"It is time to discuss the benefits of e-learning with students, teachers, parents, and other community members in southern cities"*

Int10 shared views about the benefits of the e-learning system:

> *"E-learning systems can bring safety and security to those parents who have lost personal assets and the lives of loved ones due to the violent conflict".*

The e-learning system is more safe and secure especially when the security situation is still abnormal in some areas of southern cities. E-learning systems can engage a high number of ex-students especially those who are doing labour and other activities for their survival. Such teachers and students can join e-learning when they find free time whilst continuing with other professions. E-learning education can increase computer literacy, technical skills, engagement, transparency and accountability in public sector schools. We will soon be arranging investments so that we start an e- learning system through some saved functional schools and engage the maximum amount of people without travelling to other locations. The education ministry and other stakeholders must arrange information-sharing sessions in which they must disclose how e-learning is safe, secure, affordable, flexible and able to offer admission to maximum students.

By discussing the benefits of the e- learning system, more openness and happiness regarding the adoption of the e- learning system in Libya can be created. People can continue teaching and students can continue learning without moving and travelling to specific locations.

Int9 stated the benefits of the e-learning system:

*"The e-learning system is affordable and cost effective as compared to face-to-face education because it requires a lower level of resources and it can engage the maximum number of students even those who are doing their regular jobs. It offers flexible hours, more technical skills and computer literacy. We are very hopeful that we will be able to formulate and implement the system very soon as e-learning is more transparent, accountable, and can provide the performance evaluation of every student and teacher."*

The sub-theme has discussed how discussion of the benefits can create more social support, positive social perception, and engagement of parents, teachers, and students who have migrated into other cities due to insecurity and safety reasons. Respondents have discussed various benefits of e-learning such as high safety and security, usefulness in limited resources, usefulness in violent conflicts, enhanced technology use, maximum student coverage, and flexible hours for everyone. The e-learning system is supportive because it supports lifelong learning, flexible hours, low cost, high content quality and accessibility, has no geographical limitations, and brings opportunities to develop a high level of awareness about advanced technologies. However, it has been found that although the students and teachers who have PCs are large in number, the low speed of the internet and high load-shedding will negatively influence e-learning efforts for secondary school students. Therefore, the educational ministry and education officers must focus on developing a primary infrastructure for e-learning which must be effective for the students. Respondents have stated that an e-learning system is more safe, secure, affordable, and transparent compared to face-to-face education. They have argued that in the presence of limited teachers, books, schools building, and other facilities, it is better to design an e-learning system which can cover the maximum students by using limited resources optimally. It can increase the teacher engagement and be more feasible for saving time, money and other resources..

## 5.4.5  Sub theme Media role (Facilitator)

*Int11 shared views:*

> *"I believe that our media is also sleeping, they never put pressure on the government to offer any alternative system for children's education".*

*Int12 highlighted:*

*"Our social, electronic, digital, and print media can play a good role in motivating the community towards using a new online education system".*

*Int18 stated:*

*"We have to invest on media too to motivate the whole community. The advertisement, sponsored ads, discussion, talk shows, celebrity involvement can create social awareness about an alternative education system".*

*Int22 stated:*

*"We have to do media collaboration to work together to achieve this common education goal for our children".*

*Int23 said:*

*"Once you finish your research definitely, I will put this proposal on debate on social media and present it to the ministry of education".*

*Int24 said:*

*"Media is the only major player that can motivate the teachers, ministry, and parents towards a new online secondary school education system".*

The media can play a facilitating role in enhancing the awareness held by political leadership, parents, students, teachers, and other community members. A participant shared that there is more investment in the media (i.e., electronic, social, and digital media) which can enhance social awareness and social pressure regarding the support and adoption of e-learning. Social media can create an interactive discussion and place pressure on the education ministry as most political ministry members have official accounts where they are active and accessible on social media. One of the respondents stated that the education ministry and other stakeholders must invest money on advertising and social celebrity endorsement because young people are active on social media channels and follow their favourite celebrities. Hece, when they ee their role models giving advice about education, they are likely to be influenced. Another participant stated that collaboration and co-ordination of the media can create more awareness about the benefits of e-learning in the community. One participant stated that he would be initiating a discussion on social media so that community members (i.e., teachers, students, parents, professionals, and media persons) can enhance pressure on political leadership and the education ministry. However, a participant said that the media could not play an active role in influencing the government and persuading it to adopt an alternative education system.

## 5.5 SUMMARY

This chapter has highlighted the details of the thematic analysis from which three major themes were extracted, these being: the main challenges for secondary school students, the current infrastructure and barriers to introducing e-learning, and the enablers and benefits of e-learning in situations of educational crisis. From the perspective of the main challenges for secondary school students, the analysis revealed that life threats, murders, kidnapping, and children trafficking are high for students at secondary school level. The second theme (i.e., current infrastructure and barriers to e-learning induction) highlighted that some of the secondary private schools recently launched online education, but it is expensive and unaffordable for those who are struggling to fulfil their basic needs. It has been found that a suggested minimum of 10 to 20 years is required to reconstruct the public infrastructure following the conflict situation. It has also been found that more than 80% of the families that have become homeless and forced to live in temporary shelters and are unable to afford necessities such as shelter, food, health facilities, and clothes. Figure 5-1 describes the thesis progress.

Research Introduction

Conflict Impact on Education

Literature Review

Case Study

Research Methodology

Analysis and Results

Discussion

Conclusion

**Results**
·The issue of limited electricity, lack of internet services, high illiteracy, crime rates and conflicts are common due to violent conflict in southern cities of Libya. The migration of teachers, students, and other families have created more issues to carry on secondary school during post conflict period in Libya.
·Majority of this participants are shared that there is no guarantee that these types of violent conflicts will not occur again in Libya.
·The third theme (i.e. enablers and benefits of e-learning in situation of educational crises) has highlighted that social media can create interactive discussion and pressure on ministry to introduce e-learning as most of political ministry members have official and personal accounts where they are active and accessible.
·E-learning system is supportive because it supports lifelong learning, flexible hours, low cost, high content quality and accessibility, no geographical limitations, as well as develop high level of awareness about advance technologies.
**Outcomes**
·There is need to identify or develop framework for the successful implementation of e-learning in Libya
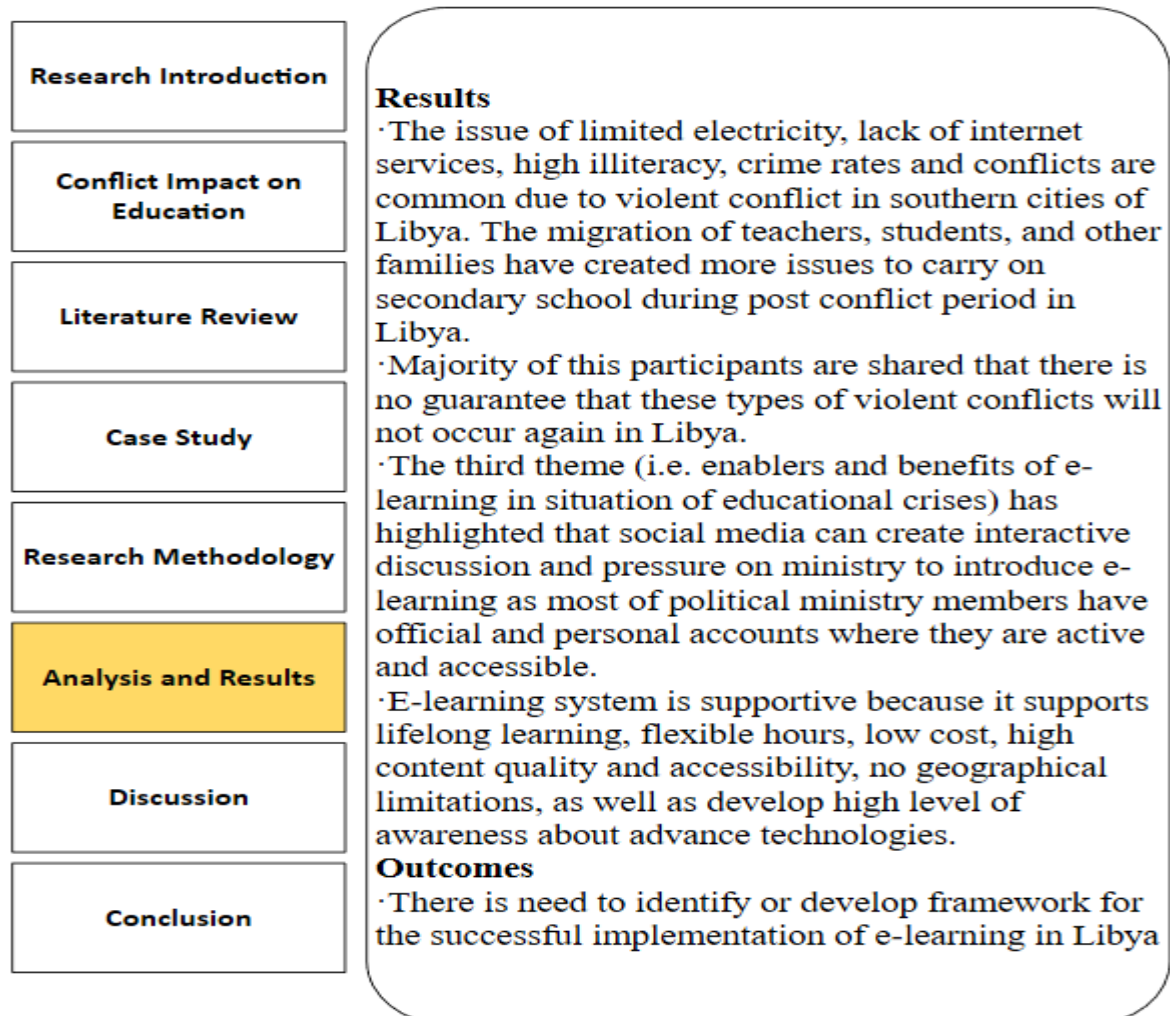
*Figure 5-1: Thesis progress*

# CHAPTER 6 PROPOSING A FRAMEWORK FOR THE IMPLICATION OF E-LEARNING IN LIBYA

*This chapter discusses the main findings reported in the previous chapter. An explanation of the key results is given, and the most significant findings are discussed with respect to the findings of previous studies.*

## 6.1 INTRODUCTION

The discussion in this chapter has been divided into three major sections, each addressing the findings of each theme developed in the previous chapter (Figure 6-1). The main aim of this study is to uncover how e-learning systems may address the educational needs of secondary school students in Libya. The study aims to offer a complete understanding of the ways in which the development of an e-learning system may offer a long-lasting and effective solution to the issue of education in the context of post-conflict Libya. The discussion within this chapter will surround the major aims of the study and it will thus address the study objectives simultaneously.

## 6.2 CHALLENGES FOR SECONDARY SCHOOLS DURING THE POST-WAR PERIOD IN LIBYA

As discussed in the literature review, human capital is devastated by armed conflicts as is the accumulation of education. Armed conflicts lead to the destruction of infrastructure and death or displacement of students and education administrators. By changing household labour allocations, the decision of parents to send their children to school is often reconfigured (Buckland, 2005; Abdi, 1998). This then significantly reduces the chances of long-term growth of the country and its chance of recovery. Education reverses the causal chain and helps people to overcome poverty as it opens doors to economic opportunities.

By investing in education, countries can escape the probability of instability in future (Blattman & Miguel, 2010). In the first theme of the previous chapter, safety and security issues were discussed, as well as their impact on face-to-face education. This discussion surrounded the issues of sexual assault, murder, fear, kidnappings, internal displacement, and the failure of law enforcement agencies; such issues can significantly impact the academic activities of children attending secondary schools.

Wharton and Oyelere (2011) found that there is no significant difference in enrolment and education accumulation between Colombian children of high and low conflict areas. However, a difference of a little over half a year was found when non-migrant children were compared with internally displaced children. Dabalen and Paul (2012) utilized data from Cote d'Ivoire and found that when victimization increases, education decreases for school-going children.

Chamarbagwala and Moran (2011) employed a time series dataset in the context of Guatemala and evaluated the effects of three periods of Civil War. They found a negative correlation between conflict and enrolment rate among school children in rural areas. Singh and Shemyakina (2013) employed the India Human Development Survey to determine whether the Punjab Insurgency negatively impacted years of school going, discovering that the number of school-going students fell due to reduced expenditures which the household wanted to incur during the conflict period. The participants in the present study also highlighted real-life incidents which happened to them, their families and relatives. For example, an educational officer stated that several secondary school children at his school lost their lives and thereafter, many parents stopped sending their children to school.

Teachers have mentioned that they have had female students who were kidnapped, raped, or murdered by terrorists. Moreover, the study also highlighted that after the incident the number of female teachers and students attending the school fell drastically. Many children have been declared as missing, presumably abducted, on their way home from school with no information on their whereabouts or condition since the incidents. Therefore, families of those abducted have migrated to other cities to prevent the rest of their family members from harm. In short, it evident that the security of school children is a growing concern that directly affects the education of many.

Swee (2008) argued that youth soldiering during the Bosnian war negatively influenced school attainment, it appeared that there was no other direct mechanism affecting school attainment e.g., the exodus of teachers or damage to education infrastructure (Collelldemont, 2015). Hager (2009) also discussed different mechanisms by which school attainment may have been affected during wartime such as the physical and mental health of individuals, damage to housing units, and migration.

As indicated earlier, Bellows and Miguel (2006) observed that there was no substantial impact of war on school enrolment in 2004 and 2005. The researchers also indicated that the areas which suffered from violence showed better outcomes after the war was over, but the effects were not significant enough. In their study, Bellows and Miguel (2006) found that there was

no evidence of civil war causing adverse impact on local institutions. However, the impact was aggregate in nature on local living standards.

Lai and Thyne (2007) found support for the results of the study by Akresh and de Walque (2008). Lai and Thyne (2007) studied the impact of civil war by observing the post-civil war situation's effects on enrolment and expenditure on education. They utilized UNESCO education data and two causal mechanisms to explore such impacts. The causal mechanisms comprised the 'loss of people and infrastructure' and 'loss of funds to military expenditure' to fight during the civil war (Lai & Thyne, 2007). The results of their study showed evidence of the destructive impact of civil conflict on the local education system due to a decline in education expenditure and in the enrolment rate during this period (Lai & Thyne, 2007).

Although the Libyan government has made primary and secondary education compulsory for all years, the situation is unfortunately far from being enforceable due to violent conflicts taking place across the country. It can be said that there are great challenges faced by decision-makers when declaring the compulsory return of pupils to school, and such challenges comprise the collapse of infrastructure through lack of security and safety, challenges in schools, and external challenges (Figure 6-1). Educational infrastructure has also been damaged as a result of the war and huge financial investments are required to restore the infrastructure of the country. The life-endangering political situation may also cause people to eventually quit schools and colleges. Teachers also shared that some of their beloved students died during the conflict and that several of them were severely injured while conflict was taking place in southern cities. They also pointed out that many women were sexually assaulted and kidnapped. Such situations led various students to quit their studies. The majority of the respondents indicated that there was no guarantee of peace in Libya in future. Therefore, what was essentially needed was to look for a permanent solution which offers safety and security to children. Different studies have analyzed the relationship between enrolment and conflict.

170
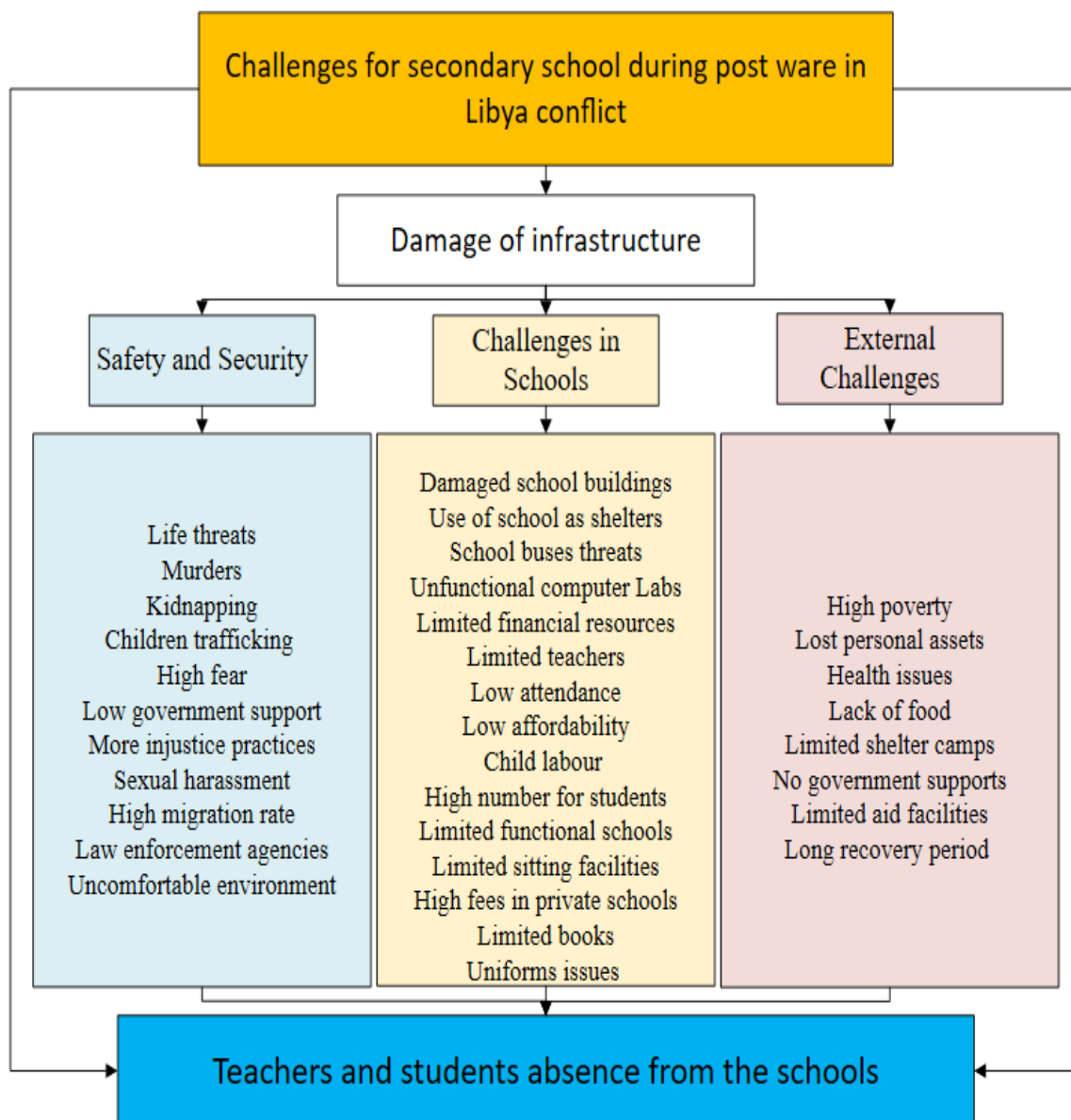
*Figure 6-1: Major challenges faced by secondary schools in post-conflict Libya.*

Swee (2008) utilized municipality-level data related to war casualties from the Bosnian War (1992-95) and analyzed variations in the intensity of war for different birth cohorts of children to identify the impact of civil war on schooling attainment. The researcher found that the individuals in cohorts affected by war were less likely to finish their secondary level studies if they resided in municipalities where there was intense war taking place. However, no significant impact of war was found on primary schooling.

Respondents stated that they have had to leave their residence along with their families and are taking abode in temporary shelters provided by the government. The majority of parents want their children to be able to go to schools but are afraid of the situation outside. Though private schools exist in the country, not everyone can afford to give their children private education.

Such incidents give a sense of insecurity among people about the overall situation around them and consequently, they do not send their children to school as they fear that they will come in harm's way.

In their research, Akresh and De Walque (2008) examined the effect of the Rwandan genocide on the human capital investment of children. They employed two cross-sectional household surveys to collect data about the situation before and after the genocide to examine whether the school enrolment of children was affected, and to observe which particular grades were completed. In order to achieve this, the researchers compared children of the same age group who were and were not exposed to conflict. They found that civil war, particularly genocide, was the most destructive social phenomenon for school-going children. The researchers also found that there was a drop in educational achievement of one-half year in children who were exposed to genocidal conflict. Such children were also less likely to complete the third or fourth grade. However, the results obtained by Akresh and De Walque (2008) showing poor primary school education among Rwandan children from conflict regions are in contrast with those reported by Swee (2008) who found no such effect in a study of Bosnian children.

Participants also mentioned that there is a lack of earning opportunities. The economic consequences of conflict were empirically tested by Collier (1999) when he evaluated the impact of civil wars on the composition and growth of gross domestic product (GDP), confirming a negative correlation between post-conflict growth rate and duration of war.

Weinstein and Imai (2000) analyzed the channels where a negative relationship is observed, claiming that conflicts negatively influence private investment, and since private investment decreases, growth rate also decreases. Stewart et al. (2001) conducted a holistic overview of the socio-economic cost of war in different countries using data from the 1990s and found that conflict worsened the macroeconomic situation and the level of human development. The fourth sub-theme (i.e., external challenges and their influence on secondary school education) has explained how external challenges such as high levels of poverty, loss of personal assets, lack of food, limited shelters, and low level of aid facilities are negatively influencing the educational activities of secondary school students in Libya's southern cities.

As discussed in the literature review, Ichino and Winter-Ebmer (2004) conducted a cross-country analysis of the impact of World War II in Germany and Austria. They found that the war negatively influenced the education rate, GDP, and earnings. Participants shared that many homeless people left their residential areas and workplaces permanently and were not willing to return. Many respondents said that governmental organizations and other organizations

172

cannot quickly adjust to huge numbers of homeless people in terms of caring for their health, education, food, and shelter, and that this is especially the case in a country where there is a high level of poverty. De Walque (2004) observed the demographic effect of genocide during the Khmer Rouge period, finding that school enrolment fell during the late 1970s compared to the enrolment rate prior to the conflict. Akresh and De Walque (2008) utilized two cross-sectional household surveys and found that following the 1994 Rwandan genocide, education accumulation fell sharply. Hence, there is a robust negative relationship between armed conflict and education even under different circumstances (Akresh & De Walque, 2008).

Research findings have revealed that many people have lost personal assets and financial resources during the conflict. Additionally, more than 80% of homeless people are living in temporary shelters and some are struggling to afford basic necessities such as shelter, food, healthcare, and clothes.

In this crucial period, the government cannot immediately invest in educational infrastructure until support is forthcoming from aid-providing organizations or surplus income. Resolving the situation requires significant time, and it is clear that the Libyan government is unable to recover the whole infrastructure in the near future. Indeed, such recovery is likely to be close to two decades away somce the current economic condition is not predicted to improve for a considerable amount of time (Figure 6-2) Moreover, the lack of security that continually pushes people to migrate has increased student absence. It has been established that there are no students and teachers in many schools and a great many people have moved to the country's major cities like the capital, Tripoli. Consequently, the schools in these cities have become overwhelmed, and themselves in need of an e-learning system to alleviate the overcrowding. In preparation for the introduction of e-learning, the researcher has attempted to explore whether the current infrastructure is adequate to support schools in this initiative. The next section discusses the feasibility of implementing such an education system during the post-war period in Libya.
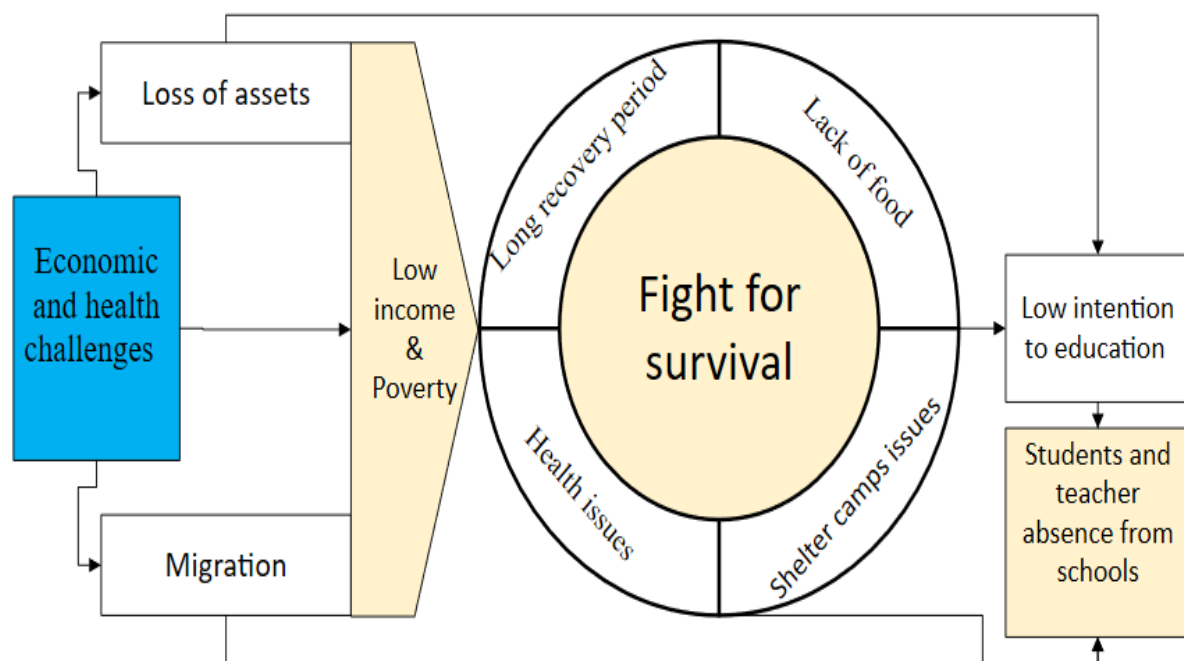
*Figure 6-2: The impact of economic and health challenges on education.*

There are different challenges faced by secondary schools which may affect their provision of face-to-face education, negatively impacting upon their educational activities Many respondents revealed that several militia groups are fighting against each other in the streets using heavy shelling, consequently damaging the surrounding buildings. The heavy shelling has also claimed several lives including those of teachers and students (Figure 6-2).

Many students and teachers are missing while others have shifted to temporary shelters to be safe from shelling. Some teachers also left public schools and found employment in private schools which are better protected so that they cold continue to earn. Swee (2008) found evidence, however, that such factors are not always contributing to school attendance, since in his study it emerged that it was only youth soldiering that egatively affected school attainment during the Bosnian war, and that there was no other direct mechanism causing the exodus of teachers or damage to education infrastructure (Collelldemont, 2015). Hager (2009) discussed alternative mechanisms by which school attainment might have been affected during wartime periods such as the physical and mental health of individuals, damage to housing units during wartime, and migration (Hager, 2009).

The participants indicated that the attendance of students and teachers substantial dropped because of heavy shelling which resulted in schools becoming non-viable. It was indicated by interviewees that their schools' financial resources were highly constrained, making it impossible for them to continue educational activities. This situation also started to give rise to

instances of child labour as many families that are in dire straights through losing their breadwinners have had to rely on earnings from their children to eat. Such children are struggling to meet their basic needs let alone enrol in a school. Additionally, many children migrated with their families away from their regular school.

There is also a lack of governmental support to recommence education. The literature on education in conflict regions is ever-growing (Bensallah et al., 2000; Anderson et al., 2006; Davies, 2004; Seitz, 2004; Salomon, 2004; Bekerman & McGlynn, 2007). Most of it is regarding education in schools, the reconstruction of public education, and improvement of inter-group understanding and dialogue at primary and secondary school levels. Different networks have been established to help practitioners and educators share their knowledge and experience in such instances. This includes the Inter-Agency Network for Education in Emergencies (INEE) which is steered by a group of committees such as UNESCO, UNHCR, International Rescue Committee, UNICEF, CARE USA, and Norwegian Refugee Council, and the World Bank (UNHCR, 2006). It is also supplemented by UNESCO's Education in Situations of Emergency, Crisis & Reconstruction Programme, and Commonwealth Secretariat Conference on Promoting Education in Crisis & Post-Conflict Reconstruction in Africa. Various non-governmental organizations have recognized the significant role of education in establishing and promoting sustainable peace in conflict regions. There are also international donors that support and fund peace education programmes. It is within this field that the current research is located (Tomlinson & Benefield, 2005). Therefore, the Libyan government needs international donors, investors and experts to help to build the infrastructure required for e-learning in Libya's secondary schools.

Miguel (2006) pointed out that following the results of their research there was no evidence of civil war causing adverse impacts on local institutions, but there is evidence that extensive efforts were required by the local government and stakeholders to deliver education for school children. However, the impact was aggregate in nature on the living standards. Participants have highlighted their experiences when taking employment in private schools as public schools were out of funds to pay the salaries of their employees. They revealed their belief that it would not be possible for the government to re-develop the educational infrastructure given the mass scale of the destruction that took place during the conflict. This devastation was widespread. Some of the respondents also expressed that it would take at least fifteen years for the violent conflicts to come to an end. They also stated that people were struggling to meet even the most basic needs of life, i.e., obtain sufficient food, clothing, and shelter. This struggle made the attainment of education a secondary priority for them.

Lai and Thyne (2007) in their research found support for the results obtained by Akresh and de Walque (2008) in civil war situations. Using UNESCO education data and two causal mechanisms to explore the impacts, Lai and Thyne (2007) studied the impact of civil war and the post-civil war situation on enrolment and expenditure on education. The causal mechanisms were the 'loss of people and infrastructure' and 'loss of funds to military expenditure' to fight the civil war; and their results showed evidence of a destructive impact of civil conflict on the education system due to a decline in expenditure and a decline in enrolment rates during the civil war period (Lai & Thyne, 2007).

The lack of both educational opportunities and employment opportunities gives rise to frustration which encourages people to become involved in the conflict and also increases crime rates in the country. Consequently, the attention of the government and other stakeholders has turned towards developing a safe and secure system of schooling so that educational activities can be resumed in the country. However, since it is not possible to restore the damaged infrastructure within a short period of time, the government should focus on providing education over the internet. Indeed, respondents suggested that the government should prioritize e-learning so that educational activities can occur even when teachers are limited in number. It is also important to point out that the studies conducted by Swee (2008), Lai and Thyne (2007), Bellows and Miguel (2006), and Akresh and de Walque (2008) showed that there is no clear consensus in the existing literature about the relationship between civil conflict and educational enrolment. These results could indicate the possibility that the effect and characteristics of civil war differ from one region to another. Such a possibility justifies the need to undertake further research to explore the relationship between civil war and education in the context of countries where this type of conflict is present as the results of no single study carried out in a single region can be universally applied. Additionally, no study has explored the potential feasibility of an e-learning system as an alternative education system for secondary school so by considering these findings the researcher has established an understanding of how to develop an e-learning infrastructure to provide educational facilities for students and the safe delivery of education for teachers in Libya.

It has been found that the literacy rate and national culture impacts upon e-learning, negatively influencing the culture, structure, development, and performance of Libyan secondary public schools. The participants highlighted several literacy-related and cultural challenges facing the implementation of e-learning.

These challenges comprised the lack of future planning, high uncertainty avoidance, cultural inertia, the likelihood of more conflict, low usage of technology, power and influence, low education level, low awareness about ICT, under-developed infrastructure of ICT, limited internet services and limited computer labs in rural areas. Findings also show that the Libyan government has been unable to develop an ICT infrastructure in public schools whereas private schools have succeeded in this and have advanced ICT facilities. However, the general population are unable to afford private schooling for their children due to severe financial constraints so it is only a small proportion of children who are able to educated in this way. It has also been found that the Libyan government has limited financial means at its disposal for public schools, preventing development of the school infrastructure. In such an instance, the best option available to the government for the provision of education was considered to be e-learning, as it satisfies the need to engage the maximum number of students and to do so with limited resources. For such a system to be implemented, however, there is a need to provide fundamental training to both teachers and students so that they are capable of operating effectively in an ICT environment.

The third theme (i.e., the impact of damaged infrastructure on secondary school students) discusses the destruction of infrastructure during conflict such as electricity supplies, houses, schools, ICT infrastructure, sanitation, and public transportation. Interviewees stated that all this destruction had a cumulative annihilating effect on attainment. Several participants also mentioned that many of their colleagues and their family members lost their lives during such conflicts, and that such losses were compounded by the use of heavy weaponry by militia groups and armed forces that destroyed schools and houses and the rest of the infrastructure on a massive scale.

As a result of this damage, many people were displaced and forced to take shelter in shelter homes or in other cities. Some respondents also mentioned that their colleagues lost their jobs and therefore, their children had to leave schooling because they could not afford to send them to schools. And some interviewees indicated that there was a lack of sanitation facilities in shelter homes and a lack of sewerage further complicating these problems as these conditions had implications for both physical and mental health. Many teachers suggested that there is uncertainty regarding the political situation, and no one knows when the conflict will come to an end. It has now been seven years since the civil war commenced in Libya, and this has constrained the human and financial resources of the country. The situation has also increased the rate of unemployment which is massive among teachers. The destruction of infrastructure and lack of employment has resulted in increased crime rates as people who would not normally

step outside the law are forced to loot and plunder to make ends meet. All these elements negatively influence the economic development, employment, and educational opportunities in Libya.

The new Libyan government lacks the resources to re-develop the necessary infrastructure, and is struggling to restart the education process in areas damaged during conflict. Akbulut-Yuksel (2014) showed that German children who were of school-going age at the time of World War II received 0.4 years less of education in adulthood. The researcher highlighted that a significant mechanism for explaining this effect was the absence of teachers and destruction of schools. Ichino and Winter-Ebmer (2004) discovered that individuals who were 10 years of age during or immediately following World War II received less education compared to other cohorts and were subsequently forced to work in lower-level jobs due to poor education during their adulthood in Austria and Germany, compared to children of the same cohort in those countries which were not affected by World War II. The researchers also argued that individuals were affected by war because it depessed their human capital. It is worth noting that results from the research by Ichino and Winter-Ebmer (2004) and Akbulut-Yuksel (2014) were not in line with the results which Swee (2008) and Bellows and Miguel (2006) obtained regarding the relationship between educational attainment and conflict in developing countries.

It has also been observed that many southern cities in the country lack adequate power supply which not only affects daily power needs, but it also the power supply required to run schools and other educational establishments. Moreover, the internet available is slow due to damaged infrastructure of internet facilities, and this made it difficult for children to even access educational material online. Another important aspect to note is that the Libyan government needs to implement long-term plans for the safety and security of schools. Further, the schools which were not destroyed are occupied as shelters, affecting the education process even more. The the overall thinking of the respondents is that such violent conflicts have created economic, financial, and infrastructure-related challenges for the entire country that will take many years to recover from.

The findings from the previous themes showed that there are several challenges when attempting to deliver face-to-face education with respect to safety and security, the migration of teachers and families, the damaged infrastructure, lack of affordability, and inability to fulfil basic needs of life. Because of these challenges, many participants stated that the government may need at least two decades to rebuild the infrastructure. Moreover, since many people are still living below the poverty line, there remains the issue of child labour which is increasing in

the country, and in effect depriving children of their opportunity to actually go to school even if the physical buildings were there, but as has been shown, the number of public schools that was limited in the country have greatly reduced through the damage brought by the conflict.

Families that previously might have sent their children to private schools can no longer do this because of their inability to continue to pay the high fees. And public schools that were not destroyed and now operational are also finding it challenging because of teacher shortages through attrition and the decision of many teachers to join other professions in search of a livelihood. Although it has clearly been declared by the Libyan government that education at primary and secondary level is compulsory, the infrastructural devastation precludes this situation from being realised. That said, it is imperative that the infrastructure that is in place is analyzed to determine what can be done with it to provide a solution that will allow for the resumption of educational activities in the country (Dakar Framework for Action, UNESCO, 2000). There are several policy documents which are non-binding but still highly persuasive in nature which reaffirm the commitment to education for everyone such as the 2000 World Education Forum Framework for Action Promoting Education for All, the 1990 Jomtien Declaration, and the 2000 Millennium Development Goals (MDGs). These documents indicate that all children must have access to education. For example, article 28(a) of the Convention on the Rights of the Child states that primary education must be made compulsory by the state and must be made available free of cost to all (Dakar Framework for Action (UNESCO, 2000).

McCowan (2010) observed that there is still a vague conceptualization of education when article 28(a) is scrutinized. This is because numerous questions emerge when the article is applied to children who are in conflict zones. These questions look at whether school is the best thing for children; whether the needs of children are being fulfilled safely by the schools during the times of conflict; and, whether there is any purpose to education during conflict. Any attempt to answer such questions highlights the tension between inclusive education and education for all (Trani et al. 2011; Miles & Singal, 2010). The position has been re-echoed in literature from governmental agencies, practitioners, NGOs, education networks, and UN agencies (Molteno et al. 2000; INEE, 2010). While it is argued by some practitioners that inclusive education is quite difficult, others do hold that it is nevertheless possible (Pinnock & Hodgkin, 2010). An attempt to clarify this has been made by Miles and Singal (2010) who stated that inclusive education highlights the problems related to social justice. The quickest form of providing accessible education in such times is to provide education through e-learning. Although e-learning would also consume financial resources, it has the capacity to engage people from even the most remote areas without the need to construct schools there. It will also

be helpful in hiring teachers who have joined private schools as they will still be able to take out time and provide education over the internet. The current study identifies the infrastructure available in respect to schools and then recommends the best possible solution for investing, planning, and developing e-learning practices. It is important to determine the nature of the challenges faced when providing face-to-face education so that the researcher can then recommend how best the alternative can be created.

## 6.3 CURRENT INFRASTRUCTURE AND BARRIERS TO THE INTRODUCTION OF E-LEARNING

In the first theme, the study focused on the types of facilities that are available and the areas in which special attention is needed for formulating e-learning in secondary schools. The participants underlined that there were only a few functioning schools in the southern cities, and these face challenges through overcrowding, limited seating capacity in classrooms, insufficient numbers of teachers, and inadequate funding. Many teachers have left these schools because their salaries have not been paid. The respondents also highlighted that while there were some computer labs which were operational and were providing education through e-learning, the attendance of students was still low due to the inadequate and disrupted power supply to the southern cities.

Although the government was keen on resuming secondary education, it appeared to be finding this aim unachievable given the financial constraints and massively damaged infrastructure. That said, there is a widespread use of mobile phone technology, and because of this, students and teachers are aware of how to incorporate ICT into education (Figure 6-3). By the year 2000, there was visible but slow progress towards universal education because of the second MDG on universal primary education (UPE) by 2015 with inclusive education as one of the chief strategies for addressing exclusion and marginalization (Peters, 2009; Delamonica et al. 2004; UNESCO, 2011). Although globally 52 million additional children were enrolled in primary schools in the period between 1999 and 2008 with a one third increase in sub-Saharan Africa only (UNESCO, 2011), 58 million children were out of school as of 2012 (UNESCO, 2015). The evidence shows that it is necessary to accelerate progress in education as this is crucial to achieving wider MDGs in areas such as child survival, poverty education, and maternal health (UNESCO, 2011). Researchers such as Trani et al. (2011) highlighted that Education for All emphasises education for disabled people in conflict regions. Therefore, if the government aims to provide education through e-learning programmes then it would have to invest in the

construction of more accessible computer labs, a reliable power supply, and the provision of fast internet services.

Many respondents also indicated that the existing infrastructure could not support an e-learning system because there were frequent power outages, lack of uniform internet services, child labour issues, and high turnover among teachers. This is further complicated by the economic crisis into which the whole country has plunged. The government is struggling to maintain health facilities and food supplies in the country. Nevertheless, the participants suggested that the government must win this struggle and secure financial resources which will enable it to invest in the re-building of computer labs, provision of uniform internet services, and guarantees of adequate power supply so that the ICT infrastructure can be built and maintained. Recent literature on the subject has shown that the agency of school leaders and institutional setting approaches utilized by those leaders in practice can be understood only by evaluating them in the context of their work (Clarke & O'Donoghue, 2013). Fundamentally, across different educational contexts, the leadership of schools continues to be associated with the transformation of the education system. It is expected that leaders would adopt a purposeful and moral approach towards leadership, challenging the practices which marginalize or exclude others from education (Shields, 2014; Ruairc et al., 2013). Similarly, there are also calls for transforming the leadership of schools in ways which create room for shared responsibility and creativity among teachers to develop an innovative education system for schools (Edmunds & Macmillan, 2010; Ainscow, 2011).
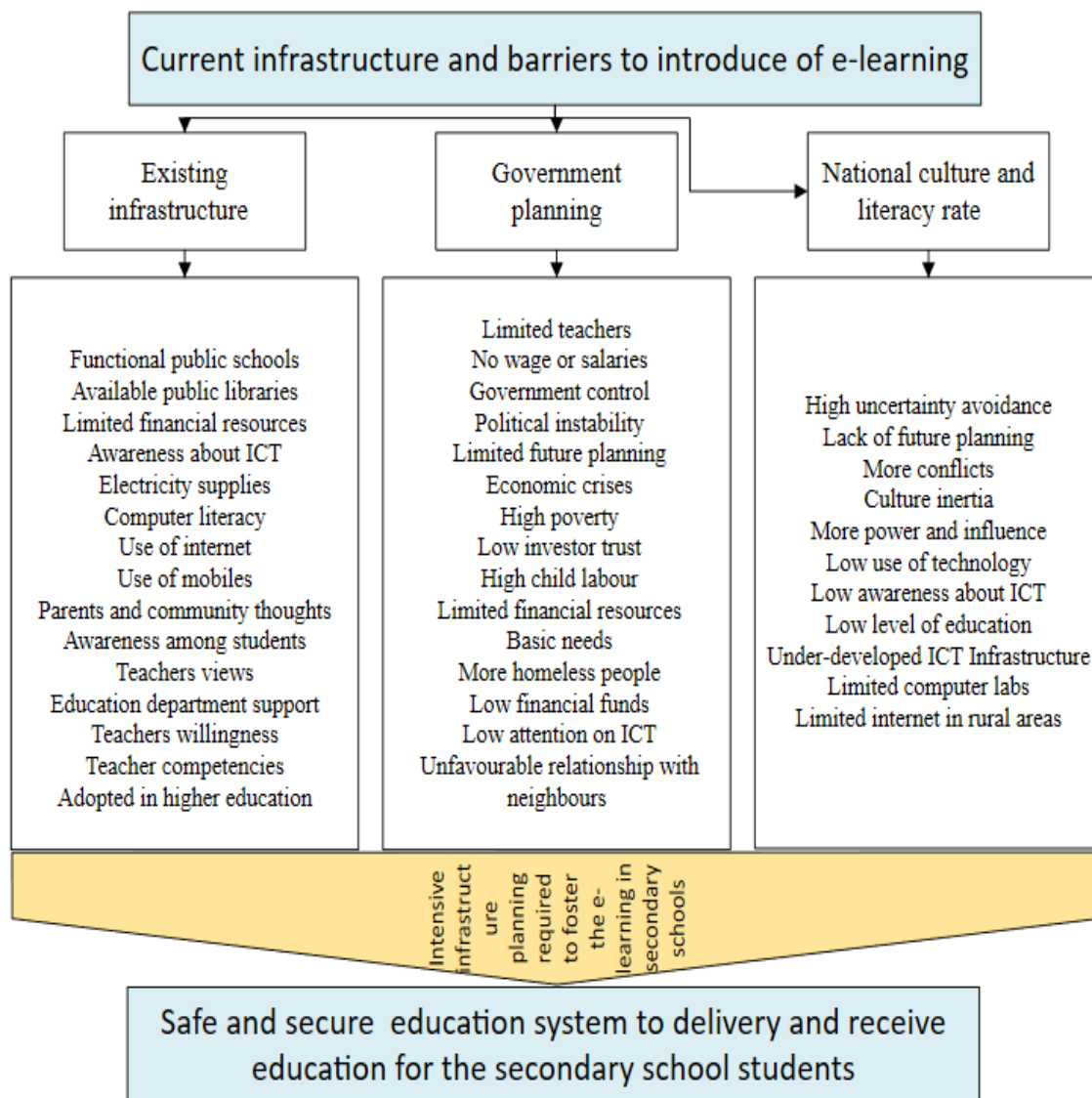
```
┌─────────────────────────────────────────────────────────────────┐
│        Current infrastructure and barriers to introduce of e-learning        │
└─────────────────────────────────────────────────────────────────┘

┌──────────────┐      ┌──────────────┐      ┌──────────────────┐
│   Existing   │      │  Government  │      │ National culture and │
│ infrastructure │      │   planning   │      │   literacy rate   │
└──────────────┘      └──────────────┘      └──────────────────┘
```

| Existing infrastructure | Government planning | National culture and literacy rate |
|---|---|---|
| Functional public schools | Limited teachers | High uncertainty avoidance |
| Available public libraries | No wage or salaries | Lack of future planning |
| Limited financial resources | Government control | More conflicts |
| Awareness about ICT | Political instability | Culture inertia |
| Electricity supplies | Limited future planning | More power and influence |
| Computer literacy | Economic crises | Low use of technology |
| Use of internet | High poverty | Low awareness about ICT |
| Use of mobiles | Low investor trust | Low level of education |
| Parents and community thoughts | High child labour | Under-developed ICT Infrastructure |
| Awareness among students | Limited financial resources | Limited computer labs |
| Teachers views | Basic needs | Limited internet in rural areas |
| Education department support | More homeless people | |
| Teachers willingness | Low financial funds | |
| Teacher competencies | Low attention on ICT | |
| Adopted in higher education | Unfavourable relationship with neighbours | |

Intensive infrastructure planning required to foster the e-learning in secondary schools

Safe and secure education system to delivery and receive education for the secondary school students

*Figure 6-3: Current infrastructure and barriers to the introduction of e-learning*

However, the role and practice of school leadership serving the communities in conflict regions goes beyond such commonplace reforms and additionally involves reversing the impact of war and violence for teachers, students, and their communities. The twin mandate of reform and reconstruction by the World Bank (2005) provides opportunities for societies emerging from conflict. Therefore, it is vital to have a committed leadership force to facilitate the transformation of fragmented communities and introduce an alternative schooling system in conflict zones. Yet educators are usually trapped in overbearing and dysfunctional systems whereby teachers have to bear the ills of the society in their day-to-day encounters with members of affected communities even when the teachers themselves are affected (Williams, 2017). The Libyan democratic government was also unable to develop healthy foreign relations and secure funding from international organizations and neighbouring countries. The southern

cities have been the most affected due to conflict and unless the government invests hugely there, they may not resume many activities including educational activities. This requires building schools, building a power network, an internet network, and public infrastructure. Due to cultural inertia more resistance is taking place as there are many uneducated people in the country and education practices still involve traditional methods of delivery. It has been found that insufficient technical expertise and local languages are chief barriers to adopting and successfully implementing an e-learning system. The stakeholders of secondary schools can be encouraged to adopt e-learning by encouraging learning of the English language and giving them proper ICT training.

The idea is to develop an e-learning system in various languages to eliminate the students' dependency on the Arabic language. Therefore, it was not easy to engage students and create awareness about e-learning tools without addressing the language barrier. E-learning requires technical planning involving the planning of a digital educational database and establishing advanced computer labs.

The current study took into account the two previous main themes to analyze different factors which are negatively influencing the dispensing of face-to-face secondary school education in Libya's southern cities. These barriers include safety and security issues, limited financial resources, damaged infrastructure, high poverty rate, limited functional schools, and inability to restart education. Furthermore, the current study also conducted an analysis of the current educational infrastructure and how it may support the implementation of e-learning practices.

It is important to understand the nature of the current level of educational post-conflict, as much of the infrastructure is partially or wholly damaged. This analysis is required to understand how e-learning can be implemented by making use of existing infrastructure. Subsequently, the current study identified the political instability, power distance, limited number of investors, political conflicts, improper relationship with international donors, uncomfortable local environment, and limited usage of ICT as significant challenges to the aim of restarting secondary school education. In the light of such a discussion, the aim of the current study has been to highlight the manner in which an efficient e-learning system can be introduced in the Libyan education sector and to propose the idea that such a system may prove to be the best means of offering education given the challenging safety and security situation of the country. In this theme, the research discussed the role of the government in planning ICT, developing infrastructure, motivating and spreading awareness among people, and highlighting the benefits of e-learning in the face of such challenges.

## 6.4 E-LEARNING IN THE SITUATION OF EDUCATIONAL CRISIS

In essence, Bellows and Miguel (2006) stated that there was no evidence of civil war causing adverse impacts on local institutions but there is a clear indication that the local government and stakeholders need to make extensive efforts to deliver education for school children. However, the impact was aggregate in nature on living standards. In a study by Lai and Thyne (2007) support was found for the results obtained by Akresh and de Walque (2008) in their study of the impact of civil war and post-civil war on enrolment and expenditure on education. Lai and Thyne (2007) utilized UNESCO education data and two causal mechanisms to explore the impacts, the mechanisms being the 'loss of people and infrastructure' and 'loss of funds to military expenditure' to fight in the civil war. Their findings showed evidence of the destructive impact of civil conflict on the education system, due to a decline in expenditure and a decline in the enrolment rate during the civil war (Lai & Thyne, 2007). As discussed, planning at governmental level and the investment required for restarting the hybrid learning system (i.e., both e-learning and face-to-face learning) is necessary. There are different challenges which the participants highlighted that require immediate resolutions.

The participants also pointed out that without governmental support it would not be possible to restart any form of education, particularly in conflict-struck areas where people were struggling to meet basic needs and obtain food, water, shelter, sanitation, and access to health facilities. The majority of people were living below the poverty line, and as a result child labour was becoming increasingly more common. The rate of homelessness was also increasing as more and more people were becoming displaced, affecting the children's education and health. Bundervoet (2012), in line with the approach taken by Dabalen and Paul (2012), also examined the relationship between years of education and conflict. However, in their case, the research examined the effect of poor childhood health induced by war on educational attainment using a panel of children from Burundi. The question they attempted to answer through their research was whether the health-related impact of war negatively influenced schooling in later life. The researchers found that, on average, malnourished children were less educated compared to healthier children of the same age. Bundervoet (2012) highlighted that the relationship was stronger among those children who were exposed to conflict for a long period of time.

The Libyan government on the other hand had limited financial resources to meet the basic needs of society. This meant that the government could either focus on establishing infrastructure for e-learning (computer labs, digital education databases, public libraries) or of face-to-face education (schools and colleges). The majority of respondents suggested that e-

184

learning was more suitable particularly as people are scared of sending their children to school due to the high crime rate (Figure 6-4). Therefore, it is imperative that the Libyan government takes swift action to raise the level of education so that more people are able to find jobs and contribute towards the country's economic development. The government should also introduce scholarship programmes for students who are facing homelessness and for those who are living below the poverty line. Annan and Blattman (2010) found similar results for Uganda with respect to a group of children. These researchers revealed that abducted male youths received three quarters of a year less education, a result which is of paramount significance given the fact that lower education level leads to a lack of transferrable skills, and an overall deficiency in human capital, which ultimately lessens lifetime earning ability (Annan & Blattman, 2010).
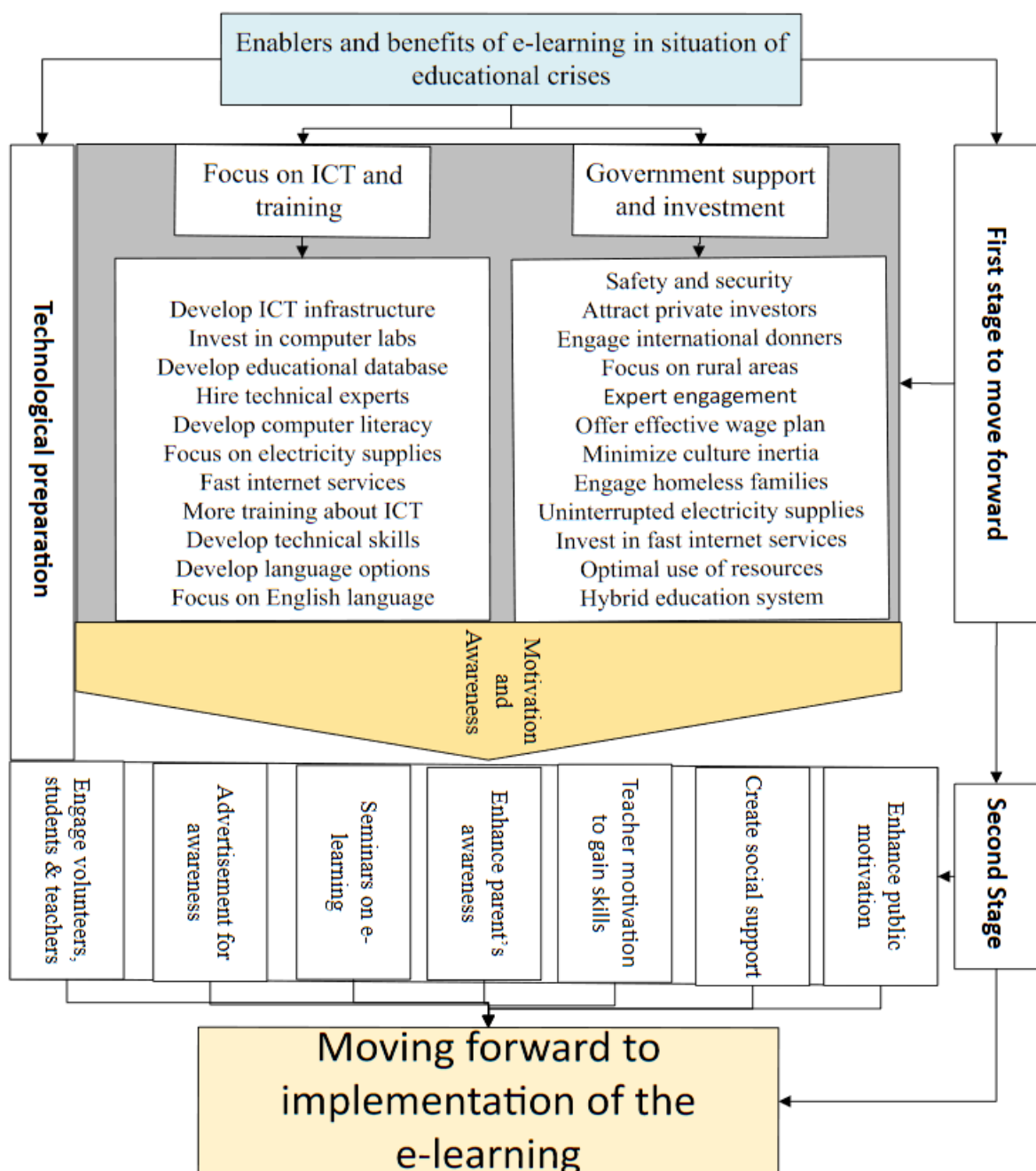


*Figure 6-4: E-learning in educational crisis.*

185

In essence, Bellows and Miguel (2006) were unable to provide any evidence of civil war causing an adverse impact on local institutions but there is evidence that the local government and other stakeholders need to make extensive efforts to deliver education for school children. However, the impact was aggregate in nature on the living standards.

The participants also pointed out that without governmental support it was not possible to restart any education type particularly in conflict-struck areas where people were struggling to get even the basic needs of life such as food, water, shelter, sanitation, and health facilities. They reported that the majority of people were living below the poverty line, that child labour was becoming increasingly common as a means of boosting family income, and the rate of homelessness was also increasing as the conflict was displacing more people. Cumulatively, these factors were affecting not only children's education but also their health. Bundervoet (2012) in line with the approach by Dabalen and Paul (2012) also examined the relationship between years of education and conflict. However, in their case, the researcher examined the effect of poor childhood health induced by war on educational attainment by using a panel of children from Burundi. The question which they attempted to answer was whether the health-related impact of war negatively influenced schooling in later life. The researchers found that malnourished children on average had less education compared to children of the same age but who were healthier. Bundervoet (2012) highlighted that the relationship was stronger among children who were exposed to conflict for a longer period of time. The Libyan government on the other hand had limited financial resources to try to meet the basic needs of society. This meant that the government could either focus on establishing an infrastructure for e-learning (computer labs, digital education databases, public libraries) or for face-to-face education (schools and colleges). The majority of the respondents suggested that e-learning was more suitable particularly at the current time as people are afraid of sending their children to school. Therefore, it is imperative that the Libyan government prioritizes the resumption of education to raise the level of human capital and thereby contribute towards economic development in the country. The government should also introduce scholarship programmes for students who are homeless, and those living below the poverty line.

Annan and Blattman (2010) found similar results for Uganda in a group of children. These researchers discovered that male youth who were abducted received 0.75 years less education. This result is of paramount significance given the fact that lower education level leads towards lack of transferrable skills, a deficiency in human capital. This ultimately lessens lifetime earning ability (Annan & Blattman, 2010).

Shemyakina (2011), Valente (2011) and Justino (2011) found that armed conflict negatively influenced enrolment rate and education accumulation, analyzing their data with respect to the impact on gender. Shemyakina (2011) focusing on Tajikstan, a country that was previously within the USSR and involved in violent civil war between 1992 and 1998, examined whether the exposure to conflict negatively influenced the possibility of completing mandatory schooling. The results of that study showed that the exposure to conflict negatively influenced the school enrolment rate for girls but had little negative influence on the enrolment rate for boys (Shemyakina, 2011).

Many respondents also recommended attracting private investors, international donors, and foreign direct investment in the education sector. Some also recommended that NGOs should be encouraged to help establish schools in the country. Additionally, they commented that by encouraging e-learning the government can engage those students who had to leave their studies to find work to support their families. And furthermore, they referred to the need for government to ensure political stability so that the overall environment in the country could provide support for education. Particularly, they highlighted that investors will only find Libya an attractive proposition if they can see that the environment is conducive to their efforts. This requires an overall improvement in safety and security within the country. The government should also focus on offering better wages to teachers so that they return to the teaching profession. Some respondents argued that the government should engage technical experts to develop the educational infrastructure.

Most interviewees referred to the fact that there is no guarantee that conflict will not return to the country, and that currently the crime rate is on the rise. Therefore, it is imperative that the government creates an educational system which works efficiently even during conflict. Akresh and De Walque's (2008) found out that civil war, particularly involving genocide, was the most destructive social phenomenon particularly for school-going children. They saw a drop in educational achievement of one-half year in children who were exposed to genocidal conflict and a much greater likelihood that they would not complete the third or fourth grade in school. However, the results of the study by Akresh and De Walques (2008) of poor primary school education among children in the Rwanda conflict region is in contrast with those ofon with Bosnian children.

It has been identified that there is an increased focus on ICT and the training required to introduce e-learning in Libyan secondary schools, and the ways in which external stakeholders could be helpful in developing ICT infrastructure were discussed. Many respondents

recommended that the government invest in establishing computer labs, developing the e-databases for education, hiring technological experts, and providing swift internet services across the country, introducing more language options, and providing ICT training to relevant people. If this is not done, the government will not be able to develop a system which is advantageous to the people generally. Additionally, the majority of participants recommended that the Libyan government take steps to increase the motivation and awareness level among teachers, parents, and students by organizing informative sessions about the key skills required for the effective use of an e-learning system. Three possible possible factors were highlighted as underpinning the education, notably: the downgrading of educated people during the regime, the destruction of technological delays and physical structure, and the direct impact of landmines on the return to education. Although different empirical strategies were utilized by different researchers (Dabalen & Paul, 2012; Merrouche, 2006; Bundervoet, 2012), the results led to almost similar conclusions. The results of their research do suggest that conflict negatively influences the years of schooling children are able to accumulate. It is imperative to design an e-learning system which is cost efficient because people already lack the funds required to meet even the most basic of their needs. Also, the majority of participants commented on the need to establish such a system in both English and Arabic languages which would be helpful in preparing Libyans for higher educational opportunities in other countries where English is the language of instruction.

The participants also stated that people from education offices, the education ministry, and headsteachers of public schools should organize meetings to discuss the development of ICT infrastructure to provide support for the establishment of an e-learning system and for face-to-face education as well. They suggested that it would be useful to engage IT experts and for teachers to develop an online database for education so that e-learning practices which are user-friendly can be fostered. All the respondents expressed their full confidence in e-learning systems as the best option to overcome the problems which the Libyan education sector is facing at present. It has been discussed earlier that e-learning education systems will influence performance through teaching outcomes only when there is alignment between the interests of teachers, administration and organizations and when all will benefit from it. This shows the importance of good alignment between both parties' interests, particularly when it comes to exploring the individual motivation to implement the e-learning system in Libya's state secondary school sector. The most commonly-used definition of public service motivation contains the notion of an individual predisposition to be encouraged by motives grounded primarily or uniquely in public institutions (Nielsen et al., 2012). It is known that employees

with higher levels of PSM are more likely to be employed in organizations within the public sector (Scott & Pandey, 2005) and might view their employment and profession as a mission (Shou et al., 2017).

## 6.5 CONTEXTUAL UNDERSTANDING OF THE IMPLEMENTATION OF AN E-LEARNING EDUCATION SYSTEM FOR SECONDARY SCHOOL STUDENTS IN LIBYA

The present study was conducted with the purpose of identifying the challenges that have arisen during and after violent conflict for secondary school students in the southern cities of Libya. Specifically, it attempted to analyze the intensity of these challenges and determine what efforts are required from officials from the education ministry to resolve these issues. In undertaking the study, the researcher also uncovered the importance of e-learning especially in the presence of the permanent challenges brought by poor safety and security, damaged infrastructure, high poverty and economic crisis, and limited human capital. To meet the objectives of the study, data was collected from officials in the education ministry, education officers, head-teachers and teachers of public schools. It was gathered via a semi-structured interview technique with a purposive sample that was gained through snowballing.

Findings highlighted inadequate financial resources, damaged infrastructure (such as school buildings, transport, roads, computer labs, electricity), and security and safety as key barriers to the resumption of secondary school education in Libya. Moreover, people were not willing to engage in class-based school activities because violent conflicts have totally damaged their homes, belongingness, and harmed friends and families. It has been found that the Libyan government has inadequate connections with international forces, with its close neighbouring countries, and with the internal armed groups which brought massive destruction to the Libyan economy as a whole, which includes the educational infrastructure in the southern cities. Different theories related to conflict show how these phenomena create an inadequate distribution of power, resistance, and influence, and how things can be used to fulfil personal interest.
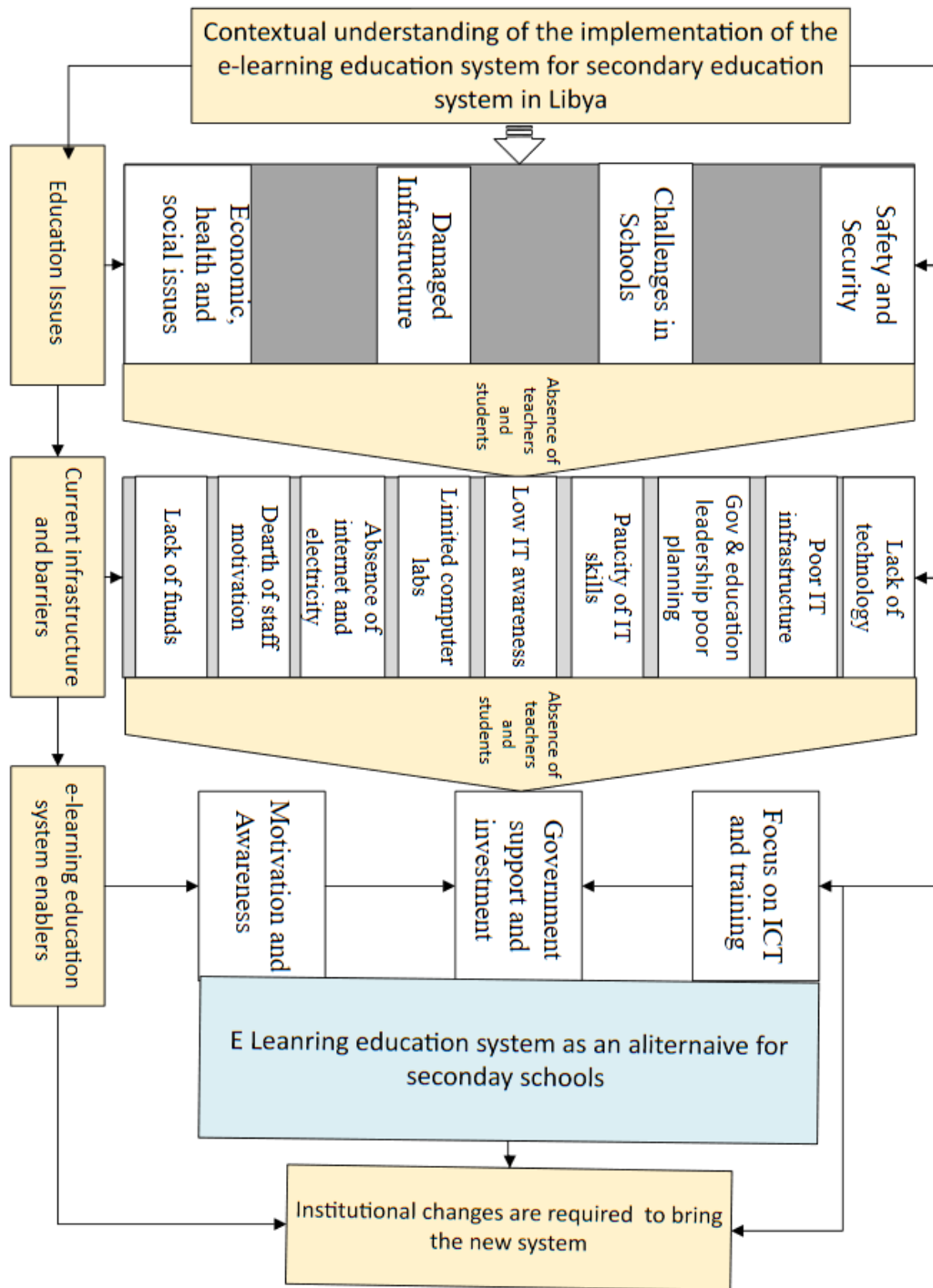
*Figure 6-5: Contextual understanding of the implementation of an e-learning education system for secondary education in Libya*

The first objective of this study is to identify the main challenges that are negatively influencing face-to-face educational activity in secondary schools in Libya. In this connection, participants have highlighted how violent conflicts bring more murders, sexual assault, fear, a reluctance to travel, and high anxieties about the lack of personal safety and security for students, teachers, and their families in the southern cites. Particularly, the kidnapping of students, sexual assault, and murders escalate such feat and parents have left these places permanently, moving to other

190

cities so that they can save their lives and try to find alternative occupations. The findings revealed that many teachers, students, and their families have lost their personal assets, lives, houses, and moved into public school buildings as shelters because they became homeless due to these violent conflicts. In urban and rural cities, these extreme conflicts created many challenges such as heavy shelling, destroying the electricity infrastructure and supplies, internet facilities, school buildings, and public transport facilities. The majority of students, staff and teachers have migrated to other cities because of the life-threatening conditions and unfavourable circumstances in conflict zones. Resultantly, the lack of availability of students and teachers has created more challenges with respect to restarting face-to-face education. Many participants have argued that they cannot be sure such violent conflicts will not occur again.

The study results reveal that the Libyan government has been operating in the contxt of violent conflict for the last seven to ten years, meaning that over this time, the government's resources have dwindled to the point where there were insufficient human and financial resources necessary to restart the class-based education system. Some respondents have also said that the government is not in a position to rebuild the educational infrastructure in a short timeframe and that it could be two decades before this position is reached. A study has documented how violent conflicts and political instability can create challenges for between 20 and 25 years after war in any developing country (Akbulut-Yuksel, 2014). Many studies have reported that different armed groups are fighting in Libya to assert their political identity, these being: the LNA, Tebu, Tuareg, GNA allied forces, Islamic State forces, and various other unknown groups (Fetouri, 2016; Vandewalle, 2018). The basic objective of these groups is to control public infrastructure as well as the sources of government and public income. As a result, they have used every unfair means to fulfil their personal interests.

Findings have shown how Libya's unstable relationships with neighbouring Egypt, Tunisia, Chad and Sudan bring more challenges. For example, Libya has forced the workers of these countries to leave their jobs permanently. As a result, the governments of these countries, investors, and foreign workers have created more problems by investing in the supplies of weapons to help in creating more political instability and violent conflict. Due to this, many people have been kidnapped, and the number of disengaged students and unemployed teachers in Libya has increased. Previous studies have also revealed how violent conflict can create more challenges for females. Females often become the first victims of violent conflict especially in schools, as the normal rules of society (respect for women) are eroded, and parents decide for their daughters that they must be protected at home. In these cases, girls can lose their capacity

to undertake educational activities and gain a greater fear of sexual assault (O'Malley, 2010; Justino, 2010).

Some participants have mentioned that the violent conflicts have damaged schools, buses, the internet system, public transport, organizations, electricity supplies, roads, and houses. Therefore, the majority of displaced families are unable to find homes, food, health facilities, water, sewerage and sanitation and their desire for education is completely suppressed as they live from day to day, and that in itself involves many children in having to work because families are living below the poverty line. In the presence of such challenges, the government's focus is to satisfy the primary needs of those made homeless, and consequently, the restoration of the educational infrastructure for secondary school students is not a main priority. A wealth of literature has confirmed that violent conflict creates great challenges for education namely through the presence of all the factors already discussed (Serneels & Verpoorten, 2015; Cerra & Saxena, 2008; Bove et al., 2016; Nam & Schumacher, 2014; Ajdukovic et al., 2013; O'Reilly, 2014). Therefore, it is not easy to create a plan to re-develop the educational infrastructure without overcoming the barriers associated with safety and security anxieties, and the obstacles to the maintenance of a secure and comfortable working environment.

The second objective of this study is to assess the available current infrastructure and barriers to the introduction of e-learning facilities in Libya. In this respect, the findings reveal that there are limited functioning public schools or libraries, there is no proper ICT infrastructure, and the use of the internet is frequently interrupted because of the heavy shelling in some residential areas. Additionally, the attendance of teachers and students has significantly decreased and some of them have permanently migrated to other cities. These conflicts have enormously damaged the infrastructure of schools and led to unemployment among teachers and limited educational opportunities.

Overcrowded classes have limited seating, insufficient nymbers of teachers, and inadequate funds to pay teachers' salaries, thereby creating more challenges to the survival of secondary public schools in the southern cities of Libya. Furthermore, many teachers and staff have left their jobs because the managements of public schools have been unable to guarantee their safey and security, or the continuation of other non-financial benefits. Respondents have reported that only limited numbers of private schools have returned to face-to-face education, and of those that have, they are all very costly, charging very high tuition fees. However, some respondents have argued that cultural inertia is one of the biggest challenges in a situation where there are high numbers of uneducated people, as the relatively low level of technology usage

leads to high resistance to bring sweeping social and educational changes, and more conflict follows then in attempts to implement new ideas which are in the public interest. A great deal of literature has revealed that Libya is facing challenges including a lack of security, safety, damaged infrastructure as well as having a long history of conflicts with the USA and neighbouring countries (Bellamy & Williams, 2011; Elabbar, 2016; Obeidi & Obeidi, 2013; Vandewalle, 2018), and this political instability and conflicts with internal armed forces creates an environment which is not suitable for investors, education, business organizations, Libyan ports, and other stakeholders (Vandewalle, 2018; Elabbar, 2016).

Before giving recommendations about face-to-face education or e-learning education systems, it is important to know everything about the existing condition of e-learning systems so that this study can bring a solution which is equally acceptable for everyone. Previous literature has also suggested that it is very important to explore political, cultural, technological, and socioeconomic aspects before suggesting an alternative education solution in any country (Hongcheng & Minhui, 2010; Quilley, 2018; Sparks, 2014; Rivauzi, 2015; Rivauzi, 2015). Therefore, the present study has highlighted many challenges in the existing infrastructure which must be resolved otherwise the recovery of the educational system will remain impossible. Lack of will on the part of government, lack of planning for the development of ICT, lack of involvement of private investors, and the damaged infrastructure combine to create little hope that secondary education will be restored.

The Libyan government is involved in the fight with armed groups and spends most its budget on survival and victory. Therefore, the financial resources needed to provide electricity, internet systems, and general infrastructure to support normal life are not available. Participants in the study have no hope of the Libyan government achieving any of these basic modernizations in the immediate future, predicting instead that it may require up to twenty years to redevelop educational infrastructure and residential areas in the urban and southern cities of Libya. It has been also found that more than 80% of the population is currently living below the poverty line and to boost family incomes, child labour is extremely high. Families are unable to send their children to school because it becomes too expensive to do so, children have now become breadwinners and are in new roles. The recommencement of education is at the mercy of government, especially in areas where people are going hungry, experiencing poor health, living in temporary shelters, and have poor water, sanitation and sewerage facilities, and few functioning roads. There is low involvement of private investors in public schools and therefore it is down to the Libyan government to provide this public service, but it seems unable to redevelop the educational infrastructure again. Furthermore, most private investors accept that

there is no guarantee that these types of violent conflict will not reoccur and are hesitant to invest due to the low level of security and safety as well as high political instability.

It has been found that due to under-developed ICT infrastructure especially in rural areas of southern cities, it is not easy for the government to develop either an e-learning system or face-to-face education without the investments already discussed. The majority of respondents have argued that existing infrastructure is not sufficiently supportive for either functional face-to-face education or e-learning education for the students of secondary schools. Moreover the findings of this study have highlighted the poverty in which many families are living and the inability of those people to purchase personal computers and internet services even if there were not the attendant problem of broken electricity supplies. All the respondents have strongly suggested that the Libyan government must accumulate financial resources to develop electricity supplies, internet systems, roads, and the ICT infrastructure in order to support both face-to-face education and e-learning education in the southern cities. The findings reveal that time-management and insufficient financial resources are two of the most prominent causes of the increase in the number of disengaged students from their schools. Furthermore, it is also found that low employment as well as few educational opportunities may lead to increases in violent conflicts in Libya, that in turn increase the crime rate. These challenges have created an even more alarming situation. Now is the right time for government officials to create a comprehensive plan through which they can develop a system which can permit safe and secure education for everyone.

The third objective is to uncover the enablers and benefits of an e-learning system especially in warzones and post-violent conflict contexts. Interviewees stressed that the Libyan government has scarce financial resources and is struggling to satisfy the basis needs of survival of homeless people at the same time as trying to re-develop either the infrastructure required for face-to-face education or the infrastructure needed for e-learning such as computer labs, public libraries, and digital educational databases. Therefore, they have recommended that the answer is for the government to attract investment by offering attractive profit-sharing plans to private investors. First, however, the government must create a climate conducive to investment and that requires immediate action in the realms of safety and security, and public order. Private investors require such guarantees. Interviewees also recommended that the Libyan government should engage international donors and funders to generate maximum funding and invest in an ICT infrastructure for the nation's students. This study has highlighted the requirement of a successful e-learning system in Libya and that requires the building of ICT infrastructure, training of staff, fast internet services, maximum engagement and motivation among students

and teachers, electricity backup, advanced computer labs, spftware in English and Arabic, and digital databases for creating and sharing study content in secondary schools.

The respondents from the education ministry did highlight that the government has started to build public libraries, create internet facilities, and an ICT infrastructure. They also revealed that they intend to build e-learning systems for Libya because they are not sure that these types of conflicts will not occur again especially because the culture is based on power distance, collectivism, a low level of education, and a low level of uncertainty avoidance. Some studies have documented that Libya is known as a hierarchal society which has high level of power distance, government control, inequalities, centralization, and corruption (Obeidi & Obeidi, 2013; Vandewalle, 2018; Elabbar, 2016). Furthermore, these studies have revealed that in presence of these features, it is not easy for Libya to foster future planning as well as the development of ICT infrastructure. Therefore, all the respondents are in agreement that an e-learning system is the most beneficial system in the current situation as face-to-face education system requires a greater level of investment and efforts. Furthermore, IT experts, professionals from higher education, and experts on e-learning systems from modern private schools can assist the government in developing the national e-learning education system. Additionally, there are needs for a high level of awareness and motivation among parents, students and teachers through training. Respondents have also expressed their willingness and eagerness to become part of an online education system because they are regular users of mobiles and PCs in their routine lives. The government can motivate parents to restart their children's schooling by offering them minimal costs on IT devices so as to engage the maximum number of students in an online education initiative. These concessions are necessary because studies on the Libyan educational system have highlighted that although there have been a few attempts to introduce private modern technology for the delivery of education in Libya, this is targeted specifically at those with money, and such a system is not accessible to the majority who are living in poverty (Alkabashi & Wu, 2009; Khalil & Halis, 2017; Fetouri, 2016). Previous studies have suggested that an e-learning system is the answer in conflict zones because it can be operated in unsafe environments, does not require the same high budget needed for maintaining bricks and mortar schools, can engage students from rural areas, offers high quality education in the presence of limited teachers, books, school buildings, and needs no transportation facilities (Ananga & Biney, 2018; Al-Azawei, Parslow & Lundqvist, 2016; Rajab, 2018).

To meet the fourth objective, the researcher also collected data on what type of efforts are required from the government and other stakeholders to formulate a strategic roadmap for developing e-learning in Libya. It was found that officials from the education ministry are

already meeting with various private investors and international funders but that whilst there is interest from these sources, there will be limited investment until they are convinced that public order, safety and security are restored, and that the chances of losing their investment are significantly reduced. At the same time, whilst a high number of students and teachers in public schools are well informed about how to operate computers for educational purposes, there are too many problems to be resolved before suggesting that e-learning is suitable in this environment. For example, the government must invest more money in re-building computer labs and ICT infrastructure otherwise public schools will not have adequate equipment to underpin the initiative.

As a priority the government requires a large injection of funding to create digital educational resources and systems. However, the officials from the education ministry revealed that the government has set aside only a small amount of funding with the purpose of slowly developing the country's ICT infrastructure. This may create more chances for e-learning education in the southern cities but much rests on hope, as these government officials referred again to the hope that they can attract national and international investors by offering high profit rates. Additionally, they revealed that they do intend to engage a high number of IT experts, migrated teachers, and professionals from higher education so that they can create a complete road map detailing the quickest way to develop the educational database for secondary school students. The database will be created with the option to use multiple languages to increase its accessibility, and work in the best interests of people using it in as much as they can be prepared for educational opportunities in other countries, and possibly earn scholarships to do so. One of the major benefits of e-learning is that it allows learners and teachers to fulfil their educational needs and basic human rights at a low cost, using minimum time, and without geographical limitations (Ananga & Biney, 2018; Hameed, Badii & Cullen, 2008; Laadem, 2017).

Officials from the education ministry have also revealed that they are planning to conduct seminars, motivational sessions, training and workshops in order to engage students, teachers, parents and other community members. They have said that the purpose of these sessions is to spread knowledge about how an e-learning system is more secure, safe, affordable, flexible, and attractive as compared to face-to-face education. Some authors have argued that the economic development and growth of any country is strongly dependent on what type of talent is produced through their educational initiatives, and how such talent brings new ways to enhance business growth and the profitability rate (Almansuri & Elmansuri, 2015; Rhema & Miliszewska, 2010).

In the opinion of these scholars, the combination of e-learning workshops, seminars, informational exchange sessions, incentives, and other programmes can encourage all stakeholders towards the adoption, support, and implementation of an e-learning educational system in Libya. In particular, they argue that it is very important to gain a high level of teacher, parental and student support for the adoption of a new technology to be successful. Efforts to develop a comprehensive awareness of the value of a new technology will be rewarded by positive social perception, social engagement, social acceptance, and readiness to adopt the new system that will ultimately advance the level of learning among secondary school students. Ministry officials have shared how they have created an investment plan in which they intend to ask for help from international and national funders because without education it is not possible to create employment opportunities and further economic development in Libya. Previous studies have confirmed that e-learning systems can increase computer literacy, technical skills and heighten awareness of the latest software and techniques, opening opportunities for further technology adoption (Anderson et al., 2008; Garrison, 2004; Deepwell, 2007; Khribi et al., 2009; Rohleder, 2008).

The outcomes of these studies confirm that e-learning systems are helpful in increasing the provision of education even in the areas where it is not possible to immediately restore educational infrastructure, areas where conflict is still going on, areas where local governments have a limited budget, or where children are engaged in child labour. Interviewees recommended starting an e-learning system with minimal costs so that it is as affordable as the internet. They stressed the importance of making such a system available even for those living below the poverty line. Headteachers indicated that the government has started to spend small amounts on deeloping public libraries, power supplies, computer labs, and efficient internet services. They also highlighted that the government was focused on receiving help from higher education experts to create mass awareness about e-learning, computer, and technical skills. These employees consider it a moral duty to serve the general public, they are specifically motivated by society`s concerns and have the desire to serve their country for the general public interest (Landau et al., 2016). Jacobides and Winter (2012) observed that the motivation of public service employees has a positive association with employee outcomes like willingness to put in effort, give affective commitment, give high performance, and obtain job satisfaction.

Ahmadjian (2016) investigated public sector employees' job satisfaction considering motivation as a very important variable. Moreover, employees can use public service motivation as a lens to view their activities and performance and to interpret their work-based experience (Ahmadjian, 2016). The greater the alignment between employee work experiences

and their work-related public service motives, the more likely employees are to feel satisfaction and enjoy other employment-related positive attitudes. Thus, it is important for the government to provide opportunities to workers who have public service motivation, in order to increase the level of their job satisfaction (Kurtmollaiev et al., 2018).

Bellows and Miguel (2006) and Swee (2008) found that civil war significantly influences enrolment not only for individual families but also for communities in general, and hence people decide en mass not to send their children to school. Bellows and Miguel (2006) focused on the aftermath of the civil war in Sierra Leone, a conflict which lasted little over a decade i.e., from 1991 to 2002, and using governmental data from the Institutional Reform & Capacity Building Project (IRCBP), were able to study local institutional and socio-economic outcomes in 2004 and 2005 which is where their results came from.

Respondents also discussed the many advantages of e-learning such as ease of use, safety and security of students and teachers as it is available at home, the enhanced use of technology thus increasing computer literacy, maximum coverage, and flexible hours of study. But there is also a need to work out how to motivate the teachers and employees to deliver education through the new education system. Public sector personnel usually view public service motivation as a special "need" which should be met either by the job or by the organization (Esteve et al., 2016). Resultantly, these employees will not leave their jobs for higher job satisfaction in the same way that employees in the private sector might. Considering what public sector workers found valuable about their job in society, Steijn (2008) used a public services motivation score for the measurement of PSM-fit. Based on the responses of respondents in this regard, Vandenabeele (2007) found a positive and significant contribution of PSM-fit with the desire to quit jobs and the job satisfaction of employees. Kim and Vandenabeele (2010) further added that the realization of PSM needs is irrelevant to job satisfaction in the case of civil servants no matter how high their motivation, because they strongly perceive their job as useful for society and have a high job satisfaction.

An e-learning system is favourable because it is available at flexible hours, comes at a low cost, and ensures high quality of education. Further, it is also available without any geographical limitations. However, it has also been observed that although both students and teachers often possess access to computers, the slow internet speed would make it very difficult to reap the full benefits of an e-learning system. Therefore, the education ministry and the concerned authorities must focus on developing the primary infrastructure to facilitate the provision of e-learning. Respondents also indicated that an e-learning system would be safe and affordable for

many. They also stated that due to the lack of school buildings, textbooks, teachers, and other facilities an e-learning system is ideal in that it can reach everywhere across the country so that resources are used optimally. This would also be helpful in increasing the engagement of teachers who are employed in the private sector or in other fields. It is also realized that there was widespread low motivation to deliver education through such an e-learning system among employees in education who have been out of work for a long time since their levels of personal motivation have dropped because of their overall condition. Consequently. There is a need to offer an effective motivational system that will improve their skills and encourage them to return to teaching via an online mode.

Fetouri (2017) has reported that many children were kidnapped by armed militia for the purposes of gaining ransoms and supporting those groups in arms purchases. The OHCHR reported that at the end of 2015 an 11-year-old boy was abducted while on his way to school and that his kidnappers demanded a ransom, but the boy was found dead on 24 February, 2016, after 68 days, his body bearing marks of torture. Therefore, teachers and parents are afraid for their children and school attendance becomes less important than keeping their children safe (Fetouri, 2017). According to Education under Attack in Libya's war (GCPEA, 2018), the high levels of violence and security risks in the southern cities has made schooling impossible. Furthermore, it also found that car bombs, aerial bombings, grenades, and other explosives have destroyed hundreds of schools and universities (GCPEA, 2018). Armed groups used kidnapping to generate income, their victims include teachers, professors, and students at the primary, secondary, and tertiary levels.

To summarise the above discussion, it has been established how different motivational factors are associated with employee outcomes in the context of public sector organizations. AMO (ability, motivation, opportunity) theory indicates that organizations should provide the opportunity to employees to perform and that employees should have the necessary skills and should be incentivised (Wright & Grant, 2010). Based on the assumption that practices provide the opportunity for employees to perform and increase their ability and motivation, it is argued that these outcomes could be attained only when organizational interests align with individual interests (Miao et al., 2015). Lin (2007) indicated that providing learning opportunities which increase the ability of employees to adopt new changes is one of the intrinsic motivation factors to motivate employees. Additionally, Ramirez et al. (2019) suggested that there needs to be an adequate combination of intrinsic and extrinsic motivation to encourage employees. The main challenge regarding the implementation of an e-learning system is the lack of information on the readiness of staff to begin imparting education through e-learning (Al Araibi et al., 2016).

Swatman (2006) evaluated the readiness of primary and secondary school teachers to accept e-learning technology as a teaching platform in Hong Kong, finding that the respondents did not feel sufficiently ready to do this. Their survey included male and female teachers from both primary and secondary schools. And later, Shraim and Khlaif (2010) conducting similar research found that neither teachers nor students felt themselves fully ready to start education through the e-learning method. In Palestine, several challenges have been faced in the implementation of e-learning, such as the digital divide, lack of e-learning skills, limited reach of the network, a lack of autonomy, poor infrastructure, language barriers, and workload pressure. Adavbiele (2017) observed that the lack of facilities and low teacher motivation to deliver education through e-learning were the main reasons for its non-implementation in Nigerian schools. Therefore, there is an urgent need to prepare infrastructure, employees and student readiness for the e-learning initiative in Libya.

The heavy use of shelling is noted to have created many difficulties: some students and teachers lost their lives, some teachers and students remain on the list of missing persons, other teachers and students have moved to temporary shelters that are safe and secure compared to residential houses, while some teachers have left public schools and joined private schools because public schools are unable to pay their salaries. Some participants have discussed how the use of heavy shelling may have negatively influenced teacher and student attendance as well as increasing the number of schools that are non-functional. Due to these challenges, many school students have engaged in child labour as they and their families may have lost breadwinners and in any event, are living hand to mouth. These children are unable to afford the fees of private schools because they have lost their assets during violent conflicts. Continuing school activities is not possible for the majority of students, staff and teachers because they have migrated to other areas. The schools have insufficient financial resources to reconstruct the school buildings damaged by the violence, and there have no government support in this respect.

It is not easy for the Libyan government to re-develop school infrastructure - school buildings, teachers' salaries, school buses, low tuition fees, arrangement of books and uniforms at low costs. Some interviewees believe that the re-construction of the educational infrastructure will take almost two decades as they recognise that it is not easy to arrange and provide financial resources that can complete such a mammoth task in a short time. They acknowledge that while the population is struggling to get food, employment, health facilities, sanitation, and other basic needs, the government will not be able to prioritise education.

Time management and insufficient financial resources have currently disengaged the students from their schools. And lack of employment and educational opportunities have caused increased violent conflicts in Libya, which in turn generate more crime. This situation has directed the attention of government and relevant stakeholders towards the need to develop a secure and safe schooling system. Some of them have suggested that it is more appropriate to develop an educational infrastructure that is long-lasting and functional in the worst political and economic conditions. They have suggested that the government should invest in education that is conducted over the internet so that more children can be educated even when there are limited number of teachers and other educational facilities normally associated with face-to-face education. Some respondents referred to how they and their colleagues had lost their jobs, schooling of their own children, and in some case, the lives of their loved one. Some described their living accommodation in the shelters as having insufficient arrangements for sanitation and sewerage, and most believed that there is no guarantee that the violent conflict which caused these conditions living will not occur again in Libya. The Libyan government has been facing violent conflict for the last seven years and is consequently left with insufficient human and financial resources needed to restart the class-based education system. This situation has also increased the number of disengaged students and unemployed teachers in Libya. Many respondents said that the government and other organizations cannot quickly provide for all the homeless people in terms of health, education, food, and shelter especially in a country where there is a high level of poverty.

The level of poverty has increased, and people are unable to think about the affordability of education as they have lost their personal assets and financial resources during the violence. With over 80% of the population living in temporary shelters and many going hungry, the government is focused on averting a humanitarian crisis and not on re-constructing the educational infrastructure. Indeed, even the old infrastructure would not support e-learning because as the study findings show, there is a lack of IT skills and technological infrastructure necessary to underpin an online initiative, and an absence of motivation amongst the teachers, students and parents to learn to use e-learning as the medium of secondary school education. The literature has highlighted such staff motivation issues, and these can only be properly dealt with by implementing institutional changes in the Libyan education system. These institutional changes will be addressed in the next chapter.

The current study was conducted with the objective of identifying the challenges which took place during and after violent conflict with respect to children of secondary schools in Libya. It is an attempt to analyze the intensity of such challenges and the efforts that are needed from

the government and education ministry as well as all the other concerned authorities for resolving the issue. Data were obtained from the education ministry, headteachers, education officers, and teachers in public schools, and from this the researcher also uncovered the significance of e-learning particularly in the wake of poor safety and lack of security, lack of proper infrastructure, economic crisis, and increasing poverty.

The primary data was collected through the use of semi-structured interviews with a sample gained initially through purposive sampling, but secondly through snowballing. The study findings highlighted key barriers to the re-commencement of traditional secondary schooling, notably, damaged infrastructure, financial resources, inadequate transportation, poor road network, and the inadequacy of computer labs. Furthermore, people are also unwilling to engage in classroom-based educational activities because they are afraid of leaving their homes during times of conflict for fear of shelling, kidnapping, assault, and even murder. It has also been observed that the Libyan government lacks good connections with international donors, funding agencies, and neighbouring countries meaning that the national economy is unable to thrive as it cannot attract foreign investment. Different conflict theories also show that during times of conflict there is an inadequate distribution of resources, preventing certain activities including educational ones from being carried out.

The main objective in the current study has been the identification of principles challenges to face-to-face education delivered in Libyan secondary schools, and it has been shown that criminal activity is now escalating meaning that people have a general fear of leaving their homes. Evidence shows that civilians have been killed in armed conflicts, assaulted, kidnapped and murdered, and this provides the motivation for people to keep their children inside and in many cases to leave their neighbourhoods and regions for somewhere safer. This has also affected educational opportunities for their children. The findings showed that many students, teachers, and their families lost their assets, and loved ones during the conflict. Many of them became homeless and their ability to remain in education also lost. Compounding the problems have been the various challenges caused by lack of modernization and the destruction waged by the violent forces, such as disrupted power supplies, lack of internet facilities, and lack of public transportation facilities, and of course damage to the bricks and mortar schools.

The majority of students and teachers in the southern cities migrated elsewhere because of the life threatening situation in the south, and this has totally depleted the supply of trained teachers there. Moreover, several participants felt no hope that the current violent conflicts would ever stop. Indeed, the study confirms that the Libyan government has been facing warlike situations

in almost all its cities for the past seven years and has therefore suffered losses to its financial and human resources such that the prospect of re-starting class-based education is not feasible. Some respondents also stated that the government was not in a position to rebuild the complete educational infrastructure even in the next two decades. A study by Akbulut-Yuksel (2014) found that it takes at least two decades for any developing country to recover from the political instability following the violent conflicts. Many studies have also shown that various armed groups are fighting in Libya to assert their identity on society. This includes groups such as Tebu, LNA, GNA allied forces, Tuareg, Islamic State Forces, and many other small military factions (Vandewalle, 2018; Fetouri, 2016) who main objective is to control public infrastructure and gain political control. They resort to using every tactic to fulfil their personal agendas.

The findings also show that the unstable foreign relations are adding to the challenges Libya is facing economically, since the labourers from its neighbouring countries who once provided valuable skills were deported and now there is a skills vacuum left by their departure. Furthermore, these neighbouring countries are also supporting different factions within Libya which is complicating the situation as the different faction are sustained by these foreign powers and find their headquarters in buildings including school buildings. This infighting and destruction of public buildings for the purpose of military basis has a cumulative negative effect on public infrastructure. Consequently, the continuing violent conflict has increased the number of students who are out of school and also forced various teachers out of employment. The existing studies have also shown that violent conflicts give rise to various challenges for female students as well who are generally the first victims of war due to fear of sexual assaults during conflict (Justino, 2010; O'Malley, 2010). Since the conflict has resulted in the death of many breadwinners, children are also forced into child labour which has driven many children out of school.

In the wake of these challenges, the focus of the Libyan government is on meeting the primary human needs of its people, not on recovering its educational infrastructure. There are a number of challenges lying before the Libyan government such as policy-making for education, delivery of education, re-construction of the infrastructure, solutions to poor transportation, and the provision of food which is currently limited (Cerra & Saxena, 2008; Serneels & Verpoorten, 2015; Nam & Schumacher, 2014; Bove et al. 2016; O'Reilly, 2014; Ajdukovic et al. 2013). Therefore, it is not sensible to agitate for the restoration of education as it has been known before, but rather the way forward should be to focus on providing education through an alternate vehicle, that being e-learning.

This feeds into the second objective of the study which is to assess the current status of Libya's infrastructure to provide education through e-learning. Having analyzed the existing barriers and infrastructural failings which can negatively impact the e-learning efforts in Libya, it has been shown that there is a limited number of schools left in the country which are in operational condition due to the destruction of schools during the civil war. And many of those schools which are operational are reporting little to no attendance due to heavy shelling and a widespread fear among parents that it is not safe to send their children out of their homes/shelters and into school. The destruction of schools has also forced teachers out of employment, and many have found employment outside of the teaching profession. Some of the schools which are safe and are open are facing the opposite challenges from those that are not considered safe, and instead of experience very low attendance, they are working with overcrowded classes, limited numbers of teachers, and limited financial resources. Together these elements are making it difficult to maintain an effective level of face-to-face education in Libya. Respondents also indicated that even the number of private schools which are offering face-to-face education is very limited.

However, irrespective of whether the private schools are able to safely offer traditional classroom-based education, the fact is that they are extremely expensive and are charging high amounts for their provision of education which is beyond the pocket of the vast majority of the population living in poverty. Some respondents also argued that one of the biggest challenges facing the education situation in the country is cultural inertia particularly due to the high number of uneducated people, low technology usage, high resistance to educational changes, and conflict among factions about establishing a government against the other faction. The literature highlighted several challenges facing Libya such as damaged infrastructure, lack of safety and security, and conflict within the country and with neighbouring countries (Elabbar, 2016; Bellamy & Williams, 2011; Vandewlle, 2018; Obeidi & Obeidi, 2013). This conflict situation and political instability is creating an environment which is not suitable for education, investors, Libyan ports, business organizations, and other stakeholders (Elabbar, 2016; Vandewalle, 2018).

Before providing recommendations about an e-learning system, and face-to-face education, it was imperative to analyze the existing condition of e-learning so that a solution is brought about that is acceptable for everyone. The literature also suggested that it was imperative to explore cultural, political, socio-economic, and technological aspects before recommending an alternative solution for the delivery of education in any country (Quilley, 2018; Hongcheng & Minhui, 2010; Rivauzi, 2015; Sparks, 2014). Several challenges were highlighted in the current

study which must be overcome before attempting to recover the educational system. The lack of planning to develop ICT, the control of government, the dearth of private investors, and the destruction of the infrastructure are important ones. But the Libyan government is directing most of its budget to the procurement of arms that are being used in the fight against certain armed groups, and the finance required to overcome some of these challenges is not available. On the basis that it will take at least two decades for the country to re-develop its educational infrastructure (particularly in the southern cities), which is the estimation of the interviewees, particularly in southern cities, a return to traditional education is not feasible.

Likewise, given that over 80% of people are living below the poverty line and increasingly more children are forced into employment, traditional education even if it were possible for the government to provide this safely, is still not feasible because that demands attendance at particular times when many children are now working to earn money. There are no private investors ready to invest in the public infrastructure including public schools anyway, and sensibly as the interviewees suggested, it is necessary to plan for the continuing conflict situation, and focus on providing education via different means.

However, it has also been found that because of under-developed ICT infrastructure, particularly in the rural and southern areas of the country, it was not possible for the government to even provide uniform e-learning opportunities. Consequently, the government must invest as a priority in the provision of a power supply, roads, fast internet service, and computer labs to encourage e-learning in those areas. Moreover, as the government also lacks the resources to offer better wages to teachers, and a safe and secure environment to students and their families, the impetus to provide education that can be accessed from home is obvious.

Acknowledging that the existing infrastructure was unable to deliver traditional education or even an e-learning system of delivery, the interviewees highlighted the question of expense for the vas majority of the population living below the poverty line. They referenced the cost of an internet connection, and computers or laptops and suggested certain concessions to bring this down to the price of mobile phone usage. Without such assistance, people will not be able to access education even when it is brought into their homes. That said, the respondents did believe that the government should forge ahead on its development of the internet system, securing a continuous power supply, construction of roads, and construction of ICT infrastructure to support both face-to-face and e-learning education in the southern cities. The findings also suggest that insufficient financial resources and time management were important causes (after the security issues) of children being forced out of schools and possibly becoming involved in

crime to held feed their families. Participants felt that in combination all these challenges had created an alarming situation in the country and they called for government officials to engage in comprehensive planning to achieve a safe and secure education environment for all stakeholders.

The third objective was to reveal the advantages and enablers of e-learning particularly in a post-conflict context and even in warzones. Respondents highlighted that the Libyan government was facing financial difficulties in meeting even the basic needs of people such as food, clothing, and shelter. Consequently, restoration of the public infrastructure including the provision of face-to-face education or development of e-learning opportunities were not immediate priorities. In this situation, the respondents believed that the government must invite private investors by offering profit sharing plans which would attract them. Simultaneously, they urged the government to improve the safety and security situation of the country in order to encourage such investment in the education sector since investors will only come forward when they are certain that their investments are properly safeguarded. The interviewees also recommended engaging international donors whose help would enable the development of the country's ICT infrastructure and the subsequent launch of comprehensive e-learning facilities. Thus, the minimum requirements to establish an e-learning system in Libya, as they came to light in this study, include building an ICT infrastructure, the provision of swift internet services, the provision of training to staff, the provision of a reliable power supply, the establishment of advanced computer labs, and the construction of a digital database for the creation and sharing of study content.

The respondents from the education ministry stated that government had already started to invest in building internet facilities, public libraries, and ICT infrastructure. They also indicated that the ministry was highly interested in establishing an e-learning system in the country as they were not sure whether the conflict would come to an end in the near future, particularly because of the national culture which is characterized by high power distance, low education level, high level of collectivism, and low level of uncertainty avoidance. Some studies showed that Libya was regarded as a hierarchical society in which there was high level of governmental control over everything, high power distance, inequality, highly centralized society, and widespread corruption in public offices (Vandewalle, 2018; Obeidi & Obeidi, 2013; Elabbar, 2016). Moreover, the studies also showed that due to these features it was not possible to engage in concrete future planning and to develop ICT infrastructure. Therefore, the respondents also agreed that the only way to provide education to students was through an e-learning system as face-to-face education would require a huge amount of financial resources which the

206

government lacked. Further, the government could also seek support from technical experts, e-learning experts within private schools, and professionals from higher education in the development of its e-learning system. Respondents also indicated their high motivation to use an e-learning system themselves as they use mobile phones in their daily lives, and feel they would be undeterred by using a new application.

The respondents were clear that the government should encourage people to gain an education through e-learning by setting the lowest possible fee for the e-learning education system. Studies on the Libyan education system have shown that due to the high cost involved in such initiatives the e-facilities associated with education were not fully utilized as many people are living below the poverty line (Khalil & Halis, 2017; Alkabashi & Wu, 2009; Fetouri, 2016). However, previous studies have also suggested that e-learning is beneficial as it provides access to education from the convenience of being at home and this reduces parental fear about sending their children to school. Additionally, it saves other education costs such as those incurred in transportation, uniform, textbooks (Al-Azawei et al., 2016; Ananga & Biney, 2018; Rajab, 2018).

In order to meet the fourth objective, the researcher collected data about the actions required by government and other stakeholders to create the strategic roadmap for the development of an e-learning system in Libya. In this respect it emerged that officials from the education ministry had conducted meetings with various investors and international donors with the outcome that whilst these third parties were willing to provide funds, they were also highly sceptical of the potential for corruption and were holding back until security was improved. Moreover, although many students and teachers were well-informed on how to operate an e-learning system, other factors such as those discussed above were stipulated as requiring governmental attention for the effectiveness of any e-learning initiative. For example, computer labs can only be built with financial support from the government; likewise the development of the ICT infrastructure, the necessary training, and the creation of a centralized education database. The officials from the education ministry stated that only a limited amount of funding was available for developing the ICT infrastructure, and consequently, progress was very slow.

This poor allocation of funding for the development of the ICT infrastructure is problematic since the potential of e-learning to provide education on a wide scale, particularly in the southern cities, and thereby protect the human capital output is lost if the ICT infrastructure is to take a long time to be completed. The interviewees from the education ministry expressed hope that they would be able to attract national and international investors by offering a high

rate of profit. They also confirmed that they were in the process of hiring IT experts and were also devising a strategy to engage the teachers lost to other fields due to the dearth of employment opportunities in education. Furthermore, they stated that it was the government's intention to create a complete database of educational material and also to provide e-learning opportunities in multiple languages so that the children who are not fluent in English can gain education in the Arabic language. The major benefit of e-learning is commonly held as being that it enables provision of education at low cost, at flexible times, and without any geographical limitation (Hameed et al. 2008; Ananga & Biney, 2018; Laadem, 2017).

The officials from the education ministry also stated that they were planning to conduct motivational sessions, seminars, and training workshops with the aim of engaging teachers, students, parents, and other stakeholders from the community. They stated that the objective of holding such sessions was to provide information about safety and security as well as the effectiveness of e-learning as a means of dispensing education which is crucial to the economic development and growth of a country (Rhema & Miliszewska, 2010; Almansuri & Elmansuri, 2015). Officers from the ministry of education were of the view that by holding seminars and motivation sessions and training workshops, different stakeholders could be encouraged to invest and engage in e-learning opportunities. They also stated that it was vital that the technology was adopted by parents, teachers, and students to fully establish the e-learning system as a routine way of learning, and thereby embed the idea into communities and the psyche of society. This strategy was thought to be helpful in promoting e-learning to the masses and encouraging them to participate in order to attain and enhance their education. The officials from the ministry of education also confirmed that they were in the process of devising investment plans whereby they would seek help from national and international funders because it was not possible to establish any ICT infrastructure without such support.

Previous studies have also confirmed that an e-learning system would create technical skills, computer literacy, and awareness about the latest techniques and software as well as openness about technology adoption (Garrison, 2004; Anderson et al., 2008; Khribi et al., 2009; Deepwell, 2007; Rohleder, 2008). In short, there are extensive changes required to introduce a new secondary education system in Libya. The institutional setting of the education system needs to shift to the new e-learning system in the Libya.

## 6.6 FRAMEWORK

The work of DiMaggio and Powell (1983) resulted in a new concept of institutional isomorphism from a different institutional perspective and it is this that is needed to understand the sociology of Libya's educational institution. Schmidt (2008) specifically posited this framework in the SI (sociological institutional) category, whereas Scott hypothesized it in the "cognitive pillar" advanced category. Schmidt (2008, p.320) described the sociological institutional category as a category that is "all about norms, cognitive frames, and meaning systems and the ways in which they are created and changed" (320). The isomorphic change framework takes these attributes of the sociological institutional stream into account while exploring normative forces. DiMaggio and Powell (1983), on other hand, took the organizational field and organizations as units of analysis. In his SI studies, Schmidt (2010.p., 13) considered "institutions" or "culturally specific practices", as units of analysis because institutions in SI studies are composed of "cognitive frames, norms, meaning systems and scripts that direct the human action". Moreover, discursive institutionalists are usually engaged in SI traditions whereas SI scholars are interested in discussing ideas, discourse and cultural framing with a major focus on describing that all these mentioned aspects are very dynamic in nature and thus can better explain both the institutional change as well as continuity in implementing an e-learning education system in Libya. This focus forces the SI to pay high attention to homogeneity and to try to convey the purposive legitimization endeavours through norms, scripts, meaning systems and local Libyan cultural practices.

When organizations face a fragmented external environment involving numerous funding sources and structures of authority, they tend to develop sub-systems and these introduce an enhanced level of internal stability in a bid to meet the complexity of the external environment (Meyer, 1992). As public schools in Libya are dependent on funding from federal sources with multiple categories of budget and from independent sources as well, they tend to have broad administrative structures compared to schools which are dependent on state funding.

Another mechanism which the Libyan institution uses to function within this fragmented environment is that of routine. Routines which have previously worked well are confirmed and given legitimacy. Such routines consist of strategies, rules, technologies, and programms which drive the organization; therefore, there needs to be a change to these strategies, rules, technologies, and programmes. The very vital practice of using routines significantly influences the change process in education. As Levitt and March (1996) indicated, routines are founded on previous interpretations rather than on future predictions. Therefore, traditional educational

routines respond to required changes in a piecemeal manner on the basis of feedback received about the efficiency of the routine. However, the online education system would also be based on the system itself, providing functions regarding online attendance and time management of employees. Such routines then become part of the collective memory of the organization and are transmitted by virtue of socialization, culture, personal hiring practices, professionalization, and imitation. In this way the routines become the force of stability instead of the force of change and effectively would work to resist a new e-learning education system in the organization. Having established that the collective memory of the organization is transmitted by virtue of socialization, culture, personal hiring practices, professionalization, and imitation, there is a need to develop e-learning implementation strategies for the successful implementation of e-learning across the entire educational institution in Libya.

The nature of pressure is similar on schools from agencies and organizations in other fields such as with respect to accreditation, state regulations, teacher training programmes. As a result, public schools tend to have a similar functioning pattern. In the context of organization theory, this homogenization is known as isomorphism (Rowan & Miskel, 1999). Isomorphism by definition is a constraining process in which one unit is forced to look like the other unit and thus they face the same level of environmental conditions (DiMaggio & Powell, 1991). If the constraining pressure becomes greater, the degree of freedom becomes lower for educational change. Educational institutions therefore tend to look alike and there is a need to employ motivational tools to balance the constraining process and improve the environment of the organization for the successful implementation of an e-learning education system.

DiMaggio and Powell (1991) highlighted three mechanisms which exert pressure towards homogenization. Coercive isomorphism stems from informal and formal pressures with respect to compliance that could be used for the successful implementation of an e-learning system in Libya. Such a pressure is highly formal, visible, and forceful as schools are required to comply with certain rules. Sometimes the pressure may also be invisible but nonetheless equally forceful, e.g., the belief of the board of school that men are more suitable than women to take up leadership positions in high school because the strategy can be aligned with the local culture Libyan culture. Mimetic isomorphism arises when one school tends to imitate the other believing that the latter is more successful and therefore by copying its structure the same results can be achieved (Macfadyen & Dawson, 2012). This intention to imitate one another is encouraged by educational consultants who always glorify the news about events taking place on the other side of the fence; academic conferences which serve as the supermarket of ideas for schools in which they learn from one another; and the rapid movement by administrators

between schools. Therefore, the Libyan government should collaborate with educational consultants and the media to facilitate the overall e-learning education system transition.

Normative isomorphism is found in the professionalization process whereby the codes, values, and standards are introduced by universities and accrediting agencies. They then tend to act as gatekeepers, determining who should enter the profession by setting certain standards that need to be met. As such, they reinforce normative expectations and order on teachers and administrators. Therefore, the universities and the accrediting agencies should collaborate with the school education system to fulfil the skill shortage in Libya. Additionally, universities and accrediting agencies should collaborate on this new system to validate the e-learning certification in the country.

It was found that the government spent most of its financial resources on providing the basic needs of those who are homeless due to the violent conflict. The Libyan government income and budget is not enough to restructure the entire system in a short period of time. During the violence conflict, the majority of human capital moved away to safe and secure areas and people started new jobs either in the same profession, or other professional occupations. The previous Libyan governments have a history of unhealthy relationships with neighbouring countries, international powers and funding organizations, and it ha therefore not been possible to attract foreign investors from those countries. Consequently, the under-developed ICT infrastructure is in the position where it will have to remain that way because it is not easy for the government to develop an e-learning system without investing in electricity, computer labs, the training of students and teachers, and fast internet services in rural areas.

It has been found that a lack of awareness, technical skills, communication and understanding of the e-learning model and online education technologies in the English language has further worsened cultural inertia in Libya. Participants agreed that power and influence, low use of technology, high uncertainty avoidance, lack of future planning, cultural inertia, low ICT awareness, low levels of education, under-developed ICT Infrastructure, limited computer labs, and limited internet services in rural areas are major challenges to the succeful introduction of e-learning systems. Furthermore, teachers and political leaders are not IT literate and they are unaware of the benefits of e-learning systems. The existing curriculum is not regularly updated and thus unable to fulfil the IT requirements underpinning online education, posing as a major barrier to the introduction of e-learning systems. The present study aimed to uncover the benefits of and barriers to offering e-learning as an alternative education system for secondary schools in Libya. Currently, the lack of financial resources is a major issue for the government,

and it is trying to engage international donors, charity organizations, NGOs, and other community members who can help in some way in the development of an e-learning system.
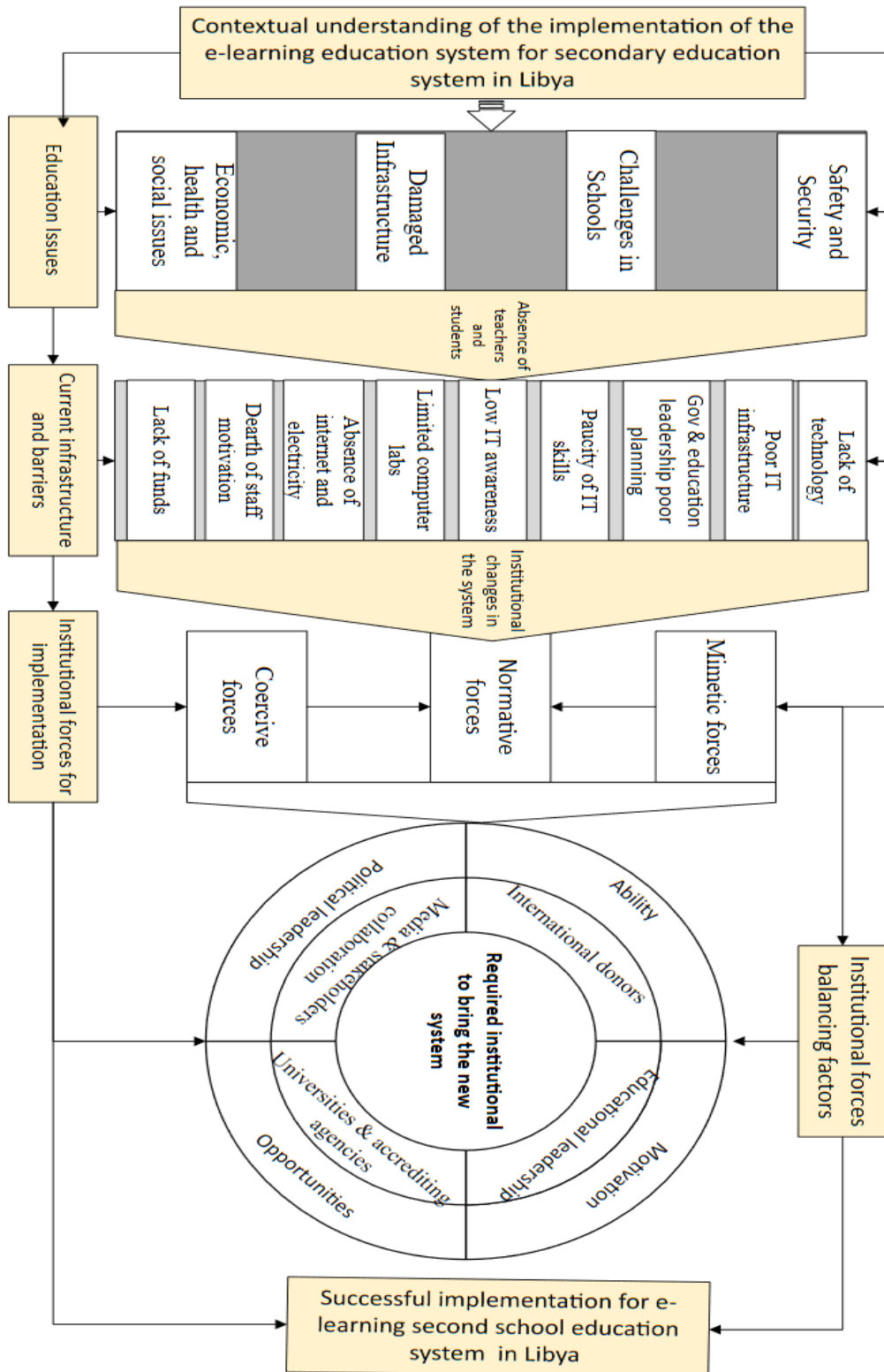


*Figure 6-6: Research framework*

The struggle for legitimacy by public schools further reinforces this process of institutional homogenization. This struggle exists as schools tend to associate themselves in a form of classification which Cohen et al. (1972) considered as organized anarchies. They distinguished between organized anarchies saying that in the latter there are specific goals (e.g., 10% intended return on investment, certainty of technology); however, this is not the case in organized anarchies. A question then arises, what is the goal of education in Libya? The answer lies in an endless list of goals, objectives, and intended outcomes that should be shared and well communicated among stakeholders in Libya. The nature of goals in educational systems is ambiguous, with everyone involved in the process having professional and personal goals of their own (Macfadyen & Dawson, 2012). There is also uncertainty about the technology of action and uncertainty regarding the security and financial solutions of the country. For example, there are numerous answers to the question: what is the best method of providing education in this post-conflict period? A common ambiguous answer is that, it depends. Such is the answer to various questions on organized anarchies and how the minister of education wants to deliver education for children in the country. Finally, the hallmark of organized anarchies is the fluid participation of its members. For example, the professionals in these organized anarchies utilize different strategies of teaching, evaluating, and motivating the pupils on the basis of their judgment depending on the unique circumstances they find themelves in. In this post-conflict context, any institutional void is filled up by external organizations, e.g. parents' groups, professional associations, unions etc., and it is these organiations that will come to define the best teaching technology and standards of excellence for the proposed e-learning education system in Libya.

These externally-defined goals should be selectively adopted by the education organizations to establish legitimization of their institution in society. They can then gain society's confidence by doing what they are expected to do by the external major stakeholders, which is to deliver the e-education system in Libya. By establishing its legitimacy, the organization establishes its right to claim resources from society and protects itself from criticisms of its existence (Aldrich, 2000). Meyer et al. (1992) pointed out that leading scholars in the field of institutional theory had outlined that school organizations go to extreme lengths to maintain their legitimacy by meeting the demands of external stakeholders instead of accomplishing the instructional ends; hence, it would be hard to implement the new e-learning education system in Libya. They can, therefore, seek legitimacy be enlisting accreditation, depicting their conformity with the rules, and responding to squash any potential for threat. Additionally, they should use intrinsic and extrinsic motivation to motivate educational staff towards delivering education in this post-

conflict period. It is this process of asserting legitimacy in which the process of replication of old traditional systems also takes place. This means that organizations then will tend to imitate each other by looking at and doing what the already established and successful school organizations are doing so that the same level of legitimacy and success can be replicated. Resultantly, the homogenization of schools begins to take place. The unintended result of this struggle for gaining legitimacy is that educational organizations get to be rewarded for complying with the rules, programmes, structures, and processes rather than for assuring the quality of the change (Scott, 1981; Rowan & Miskel, 1999) – in this case, a national e-learning education system.

Institutional theory also tells us that new schools do not come into existence by doing something different than what other schools are doing but that they are established by following the same process of legitimacy that their predecessors followed to deliver a new educational system in Libya. This creation of new organizations whilst following in the footsteps of their existing counterparts is known as imprinting. This is a process whereby the existing schools are being replicated and thus the homogenization process is further strengthened for the new e-learning education in Libya. Any school organization which tends to shy away from the established e-learning norms by undertaking dramatic changes tends to lose its legitimacy and society's support. In this case, there is a high level of educational staff motivation required to implement a new form of education as outlined by the AMO theory. So according to this theory, ability, motivation and opportunity to deliver education through a new electronic system is necessary as mentioned in the research framework. Perceiving e-learning practices to be best for the administration and teachers' interest may improve their attitude to work, job satisfaction, and affective commitment.

It is also important to explore the attitude of teachers and school administrators towards e-learning, and investigate ways in which we may increase their motivation for the introduction of this new learning system. The AMO theory has been selected for the theoretical framework of this research for this reason; it helps to understand the teachers' motivational level, their ability to adopt new systems in order to contribute to the successful delivery of the e-learning system in Libya. As the major purpose of this research is to introduce a new e-learning system in Libya to promote innovative change in the public institution, it is therefore necessary to understand institutional theory in the context of change management in education.

### 6.6.1 Validation of framework

As this research framework has been developed on the basis of research finding which also included the selected theories and practical framework. Additionally, the validation of this framework has been done through the group discussion of the six participants who were involved in data collection process the reason of selection of the same participant is that they already got some understanding about the research because of the in depth discussion with them during the summit structured interviews which conducted at data collection stage. The permission of the group discussion with this participant has been discussed at the time of summit structured interviews therefore the names of these six participants were written during the data collection process. The final developed framework has been presented at the front of participants in the group discussion and practical implication have also been discussed in disco prescription. There were some minor changes have been made during the discussion in the group and these changes were only about the swapping the position of elements from one place to another in the framework.

## 6.7 SUMMARY

This chapter has highlighted what is available in existing literature and whether the literature has contradictions to or similarities with the findings of this study. It has comprehensively organized the findings as per the proposed research objectives. The first objective is to explore the major challenges faced by secondary schools during the post-conflict period in Libya. Life threatening circumstances and damaged school infrastructure may lead to many students leaving school. It was found that the number of students, teachers, and school staff are much lower in public schools as these schools do not have sufficient resources to continue their educational activities. It also became clear that the Libyan government is unable to bring any permanent solution because it does not have enough resources to repair school buildings, pay teachers' salaries, provide free schooling, instal ICT, and provide books and other facilities. Due to these challenges, many school students have had to work as they and their family are living in poverty and may have lost breadwinners. These children are unable to afford the fees of private schools because they have lost their assets during violent conflicts.

The second objective is to critically evaluate the current infrastructure and barriers to the introduction of e-learning as an alternative education system in post-conflict Libya. It is achieved by the findings that the Libyan government is motivated to engage secondary school students, but is restricted from re-starting educational activities by a general lack of finance which allocates a small budget that prevents proper planning. The damaged infrastructure is a

huge challenge, which has resulted in few schools being able to function, in short supply of teachers, and in overcrowding in the few 'safe' schools. The lack of availability of electricity and internet facilities in many areas has made it almost impossible for children to restart their education. E-learning can be considered the best option in such situation because it has the ability to engage the maximum number students with a one-time investment and limited resources but such a system requires initial investment to build awareness amongst students, teachers, parents and other stakeholder, and then to train students and teachers. In the southern cities, e-learning cannot be introduced until the Libyan government makes a massive investment to secure uninterrupted electricity, computer labs, the engagement of students and teachers, and fast internet. It has been found that the local language and insufficient technical expertise are major barriers to adopting and successfully implementing an e-learning system. Through language, understanding and proper training, the intention can be developed among secondary school stakeholders to adopt an e-learning system. It has also been found that although e-learning can more effective, it requires much planning, technical expertise, a digital educational database, adequate student and teacher engagement, and advanced computer labs. The objective of this study was to provide a framework on how e-learning systems can address challenges like poor financial situations, broken and inadequate infrastructure, lack of security and safety, foreign language understanding, technology adoption and usage. This study provides a framework that can highlight how the transformation of the educational system is possible especially when the public infrastructure is not functional, and people are living with feelings of demotivation, and there is a strong sense of uncertainty regarding children's education at the post-secondary school level. The research framework highlighted that the government spent most of its financial resources on meeting the basic needs of those who are homeless due to violent conflict, leaving itself with insufficient funding to re-structure the whole system in a short period of time. During violent conflict, most of the human capital shifts, both geographically and in terms of focus. Therefore, it has become imperative to design an alternative education system that can address the needs of schools limited by a shortfall of teachers, overcrowded classrooms, underdeveloped public infrastructure, and lack of financial resources. This research framework is supported by various theories such as the AMO, DOI, and institutional theory highlighting that it is not easy to establish new schools especially when other schools are not functional owing to the lack of human capital, technological competencies, financial budget, and government focus. It is found that although the political and educational leadership is developing public libraries, computer labs, electricity supplies, and fast internet services, the speed of this progression remains very low due to the low level of investment. It has also been found that the investment in training, informational sessions, workshops,

incentives, perceived benefits associated with e-learning system, knowledge sharing, and media collaboration can enhance the support and pressure to introduce an e-learning system for post-secondary schools. The following figure shows the progress of this thesis.
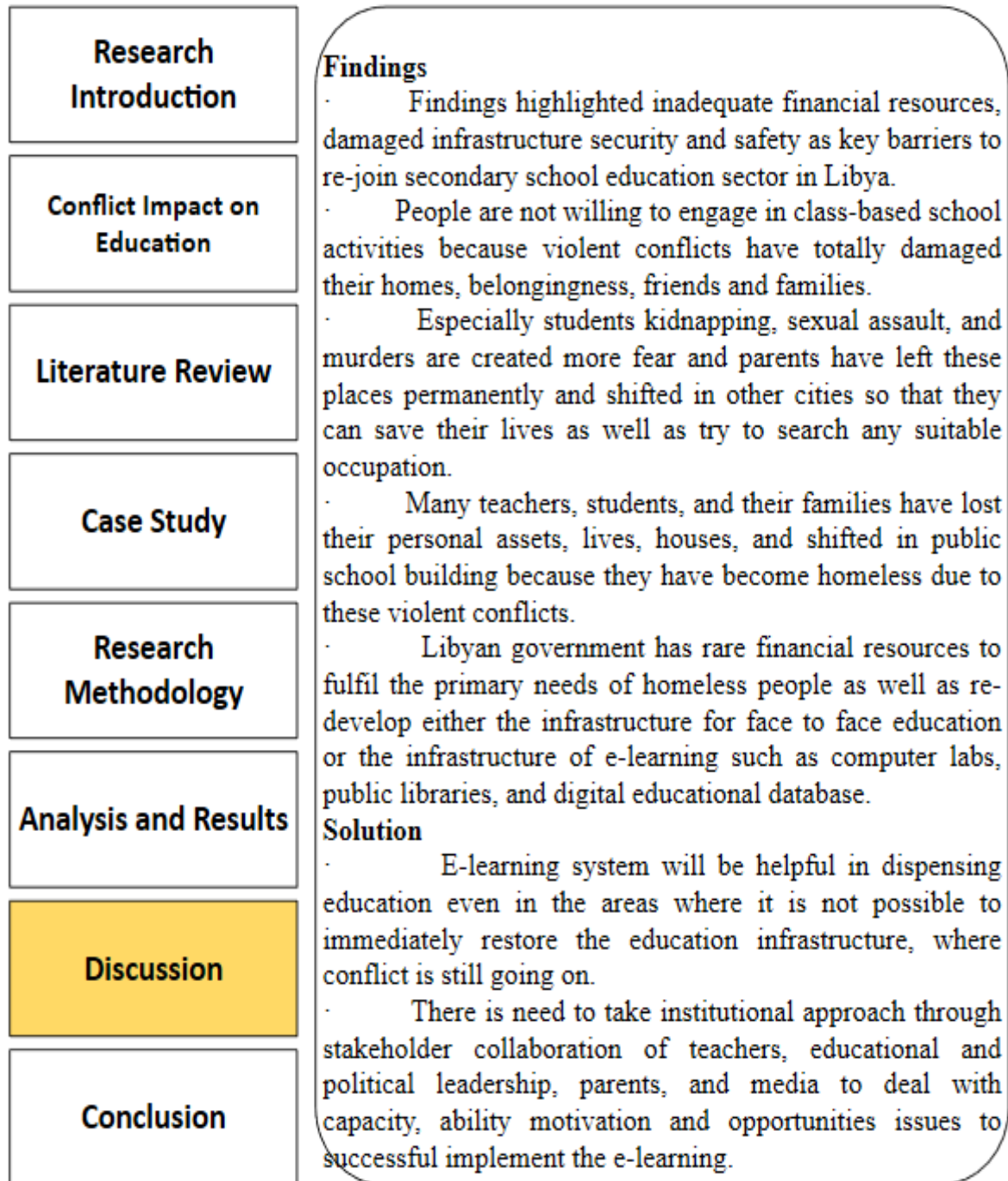
| Research Introduction | **Findings**<br>· Findings highlighted inadequate financial resources, damaged infrastructure security and safety as key barriers to re-join secondary school education sector in Libya.<br>· People are not willing to engage in class-based school activities because violent conflicts have totally damaged their homes, belongingness, friends and families.<br>· Especially students kidnapping, sexual assault, and murders are created more fear and parents have left these places permanently and shifted in other cities so that they can save their lives as well as try to search any suitable occupation.<br>· Many teachers, students, and their families have lost their personal assets, lives, houses, and shifted in public school building because they have become homeless due to these violent conflicts.<br>· Libyan government has rare financial resources to fulfil the primary needs of homeless people as well as re-develop either the infrastructure for face to face education or the infrastructure of e-learning such as computer labs, public libraries, and digital educational database.<br>**Solution**<br>· E-learning system will be helpful in dispensing education even in the areas where it is not possible to immediately restore the education infrastructure, where conflict is still going on.<br>· There is need to take institutional approach through stakeholder collaboration of teachers, educational and political leadership, parents, and media to deal with capacity, ability motivation and opportunities issues to successful implement the e-learning. |
|---|---|
| Conflict Impact on Education | |
| Literature Review | |
| Case Study | |
| Research Methodology | |
| Analysis and Results | |
| Discussion | |
| Conclusion | |

*Figure 6-7: Thesis progress*

# CHAPTER 7 CONCLUSION, CONTRIBUTION AND FUTURE DIRECTION

This chapter will focus on the conclusion and recommendations as well as presenting the most important scientific contribution in the study field of learning and e-learning

## 7.1 INTRODUCTION

The study was conducted to achieve four major objectives, these being: to explore the major challenges such as financial, infrastructure, security and safety; to critically evaluate the current infrastructure and barriers to introduce e-learning; to detect benefits from offering e-learning as an alternative education system for secondary schools in Libya; and finally to understand how an e-learning system can prove an effective alternative system in a post-conflict time.

Therefore, this research is including the conflict and e-learning aspect in developing country context. Conflict theories provide explanation behind the occurrence of violent conflicts in a society, the reason they started, and the detrimental effects they can have for the government and public. These theories entail that the violent conflicts arise due to unequal distribution of resources and power and lack of human rights. Furthermore, these conflicts also arise due to marginalization of particular communities and physical abuse against people. Different conflict theories have highlighted how violent conflicts damage education, infrastructure, economic development, health, human rights and employment. The current research takes into account the violent conflicts in Libya and highlights the damage accruing from years of long conflict taking place in the country which damaged the education infrastructure in the country. The major cities have witnessed the closure of public schools and students have suffered for at least seven years.

The developed conceptual framework of this research which is developed on the based of research findings showed that the years long conflict has affected the public infrastructure, structure of schools, resources dedicated towards schools, ICT, and behaviour as well as motivation of students to go to schools. It also entails that e-learning provides a solution against interruption of studies which took place due to years of long conflict. The current research also provides that the recovery may take up to 25 years and in the time within which the education infrastructure would be developed, the education can be continued through e-learning as it provides flexible means of dispensing education. It also eliminates different costs in dispensing

education such as transportation to and from schools, cost incurred over developing school buildings, and other ancillary costs associated with the education.

This research provides in-depth understanding about the education issues and providing e-learning system as an alternative education system in Libya. The literature also discusses the influence violent conflicts can have on continuing education in developing countries but also discusses the variance in effects of violence with variance in countries (Cohn, 2013; Cremin & Guilherme, 2016; Hojbota, et al. 2014; Pherali, 2016; Zack-Williams, 2012). This shows that the intelligence gained from existing studies in different social, cultural, economic, local and political contexts cannot be universalized for other contexts. For example, Akbulut-Yuksel (2014) observed that some countries take over 25 years for public infrastructure to develop after violent conflicts whereas Pherali (2016) and Cohn (2013) observed that an entire generation can get affected and be rendered illiterate. The aim of the current research is to highlight solutions for the problems related to rebuilding of education infrastructure after years of conflict there in Libya. Akbulut-Yuksel (2014) observed that once a violent conflict has lasted in a country for years there is no guarantee that it would not take place again in the country. This makes it mandatory to devise strategies to overcome any such challenge in future. As indicated earlier that the Libyan public infrastructure has to be completely reconstructed which cannot happen in a short time period. Moreover, people are also struggling to find basic human needs such as water, food, and health facilities which places education as their secondary priority. The crime rate is also higher in cities and they are overcrowded. Lawlessness and poverty are increasing in cities due to which families prefer not to send their children to schools.

This research provides in-depth understanding about the education issues and providing e-learning system as an alternative education system in Libya. The literature also discusses the influence violent conflicts can have on continuing education in developing countries but also discusses the variance in effects of violence with variance in countries (Cohn, 2013; Cremin & Guilherme, 2016; Hojbota, et al. 2014; Pherali, 2016; Zack-Williams, 2012). This shows that the intelligence gained from existing studies in different social, cultural, economic, local and political contexts cannot be universalized for other contexts. For example, Akbulut-Yuksel (2014) observed that some countries take over 25 years for public infrastructure to develop after violent conflicts whereas Pherali (2016) and Cohn (2013) observed that an entire generation can get affected and be rendered illiterate. The aim of the current research is to highlight solutions for the problems related to rebuilding of education infrastructure after years of conflict there in Libya. Akbulut-Yuksel (2014) observed that once a violent conflict has lasted in a country for years there is no guarantee that it would not take place again in the country. This

makes it mandatory to devise strategies to overcome any such challenge in future. As indicated earlier that the Libyan public infrastructure has to be completely reconstructed which cannot happen in a short time period. Moreover, people are also struggling to find basic human needs such as water, food, and health facilities which places education as their secondary priority. The crime rate is also higher in cities and they are overcrowded. Lawlessness and poverty are increasing in cities due to which families prefer not to send their children to schools.

Once the discontinuation of school has taken place, it is not easy to regain the motivation to attend the school again particularly when one has lost family members as well. It has also been observed that some private schools are functioning but majority of people are poverty stricken while there are also people living in shelters. They cannot afford sending their children to private schools. Moreover, a number of teachers also migrated to other countries or safe cities for their safety and survival whereas some children are forced into child labour. This has also affected the education system. The focus of some of existing studies has been on violent attacks taking place over schools. These studies recommended introducing an interim curriculum until life returns back to normalcy (Pherali, 2016; Cremin & Guilherme, 2016; Hojbota, et al. 2014). However, such a recommendation is unlikely to work in Libya because even the basic infrastructure of schools got destroyed during violent conflicts and the situation got further complicated due to migration of teachers. In such a situation, e-learning is the suitable alternative for education at least at secondary school level; but there is dearth of literature to confirm it. Therefore, the current research is conducted to indicate that e-learning provides a significant means of educating the pupils as it would not require children to physically go to school as they can get education from the convenience of being at home. It will also provide flexibility in teaching and learning.

In this research prominent stakeholders are being engaged for securing evidence about the extent of damage occurred to education infrastructure and the initiatives required for recovering education for secondary school level students. The current research also determines the suitability of current education infrastructure about e-learning initiatives. The current research also provided a framework on the basis of existing theories to introduce e-learning system as an alternate means of educating the students during and in post-conflict situations. There are four theories involved in the development of this framework. The individual perspectives and institutional needs are addressed in the first two theories i.e. AMO and institutional theory whereas the technological requirements are addressed with the help of other two theories i.e. TOE and DOI framework. Institutional theory is also helpful for facilitating the educational and institutional change by virtue of three forces which are renowned for playing a pivotal role in

either hindering or supporting the requisite change. These forces comprise isomorphism, coercive isomorphism and normative isomorphism. By understanding these forces, it is possible to understand the influential elements with respect to e-learning. Such an understanding will also be helpful for devising questions on the basis of which rich insights can be generated. These forces provide details concerning political leadership, legitimacy of power, governmental support and planning, social & cultural elements, and the professionals as all of these influence the e-learning.

Moreover, the theory also provides detail about making the current infrastructure useful for e-learning system at post-secondary education level in Libya. The three factors enunciated in AMO theory (ability, motivation and opportunity) represent the abilities, skills, benefits (financial and non-financial), other opportunities and motivations for creating a supportive environment for e-learning in post-conflict secondary schools. The AMO theory also prompts the researcher for assessing whether or not the capabilities and skills of employees for current educational system are present and for determining which factors are suitable for personal and social motivation of workforce. It is also helpful in establishing the opportunities and benefits of new educational system and how motivated and aware are stakeholders for adopting the system. For example, e-learning system will only be effective when teachers are IT literate as well so that they can use the IT systems for dispensing education. Moreover, the current curriculum in Libya also lack technological reinforcement due to which the needs of students and teachers cannot be addressed. Therefore, more efforts are needed for advancing and developing the curriculum and encouraging the involvement of local and international professionals for online education systems. The DOI theory is also helpful for understanding the role of leadership besides other forces in utilizing technology for e-learning.

In order to conduct the research comprehensively, the theoretical framework is developed with the help of AMO, institutional theory, TEO and DOI theories. The institutional theory entails that there are three mechanisms which compel the organizations to become homogenous. Coercive isomorphism takes place on the basis of pressure to comply which could be informal or formal when implemented in the context of e-learning in Libya. This isomorphism describes the process of professionalization in which the values, codes and standards are imposed and devised upon schools by accrediting agencies and institutions for implementing e-learning in Libya.

However, there are other factors at play in a conflict stricken country like Libya which need also be taken into account for assessing the implementation of e-learning in the country. The

AMO theory is also helpful in improving the understanding of individual attitude and ability towards e-learning. Moreover, it also promotes the belief that e-learning practices best serve the interests of teachers and administrators as it improves their job satisfaction, attitude and affective commitment. It is also imperative that attitudes towards e-learning are also being explored as it would be helpful in developing the optimal motivational approach for administrators and teachers in Libya. This is the reason that the current research utilized AMO for developing theoretical framework. TOE provides a useful framework to analyze the adoption of different types of IT innovation. The framework also corresponds to DOI theory which places emphasis on the organization's internal and external characteristics as well as individual characteristics that they underpin the innovativeness of the organization. These are also similar to organizational and technological context of TOE framework but the framework also involves new and important component of environmental context.

Therefore, the theoretical framework of this research is based on both the DOI and TOE theories. The environmental context provides the enablers and constraints brought by technological innovation about establishing the e-learning system in Libya. The TOE framework theory is helpful for innovation diffusion theory to explain the diffusion of innovation in Libyan education system such as by virtue of e-learning. This research took a different institutional perspective towards institutional isomorphism and this is what is required for understanding the sociology of educational system in Libya.. I has been observed that sociological institutional category is all about cognitive frames, norms and meaning systems and the way they are changed and created. These characteristics of sociological institutional stream are taken into account by the isomorphic change framework to explore normative forces. The culturally specific practices or institutions as unit of analysis in this SI research because these institutions are constituted by norms, cognitive frames, scripts and meaning systems directing the human action. Furthermore, discursive institutionalists discuss the SI traditions whereas SI scholars are discussing cultural framing, discourse and ideas by focusing on describing that all such mentioned aspects are dynamic and thus explain the institutional change and continuous implementation of e-learning education in Libya. Due to this focus, SI is compelled towards homogeneity and legitimize it through scripts, norms and meaning systems in local Libyan cultural practices.

When a fragmented external environment is faced by the organization which involves various sources of funding, different authoritative structures external to the organization but influencing the organization, then the organizations are likely to evolve a sub-system and thereby introduce an improved level of internal stability for meeting the complexity of external environment.

Since the public schools are government funded in Libya along with funding by independent sources, these schools have different administrative structures compared to the schools which are entirely government funded.

Another mechanism is routine which is utilized by Libyan institutions for functioning in such a fragmented environment. Routines which have worked previously are given legitimacy and are affirmed to continue to be in place. Such routines comprise rules, strategies, programs, and technologies driving the organization forward. However, in order to enforce e-learning education system, a change need be brought about in these rules, strategies, programs and technologies. Routines and change process are linked with each other with effect that a change in routine is conducive to the intended change. As it has been found in this research that routines are established on the basis of existing practices instead of future predictions which is why any intended change mandates changing the routines. Therefore, traditional educational routines in Libyan schools need be changed in order to enforce e-learning education system in Libya. A whole new routine or culture need be developed for introducing the e-learning education in Libya so that online attendance of students and employees can take place in real time. Such new routines are then transmitted through imitation, culture, socialization, professionalism and personal hiring practices. This turns the routines into a force of stability instead of that of change. This will have the effect of developing collective memory of the organization. Thus, it is imperative to develop e-learning strategies to successfully implement e-learning across different educational institutes in Libya.

The schools also have a pressure from organizations and agencies in various respects such as training programs for teachers, accreditation, regulations of the state, etc. Resultantly, schools develop a similar pattern to function. Such a homogenization is regarded as isomorphism in the context of organization theory. Isomorphism represents a constraining process whereby one unit is compelled to perform like another unit and as such experiences the similar type of environmental conditions. The higher the constraining pressure is the lower the degree of freedom is for educational change. Therefore, educational institutes appear to be similar to each other. Besides, it is also important to balance the constraining process and enhance the organization's environment to successfully implement the e-learning system.

There are three mechanisms exerting pressure with respect to homogenization. Coercive isomorphism arises as a result of formal and informal pressure to comply and this can be used to successfully implement the e-learning system in Libya. This type of pressure is visible, highly formal and forceful as schools are forced to comply with certain rules. Sometimes the pressures

could be invisible as well but still have an impact e.g. the male dominated board of the school may (wrongly) believe that men are competent to be on leadership positions compared to women. This is not a rarity in Libyan culture as the Libyan society is male dominated from household to societal level. Men dominate the key positions in the government and private institutions. Mimetic isomorphism takes place when schools tend to imitate each other on the basis of the belief that one is successful than the other so the working of the successful one should be copied at all levels. The educational consultants also encourage such imitation as they glorify the greenery of the grass on the other end. The academic conferences too suggest following the model of successful schools in the name of learning from each other. However, given the time and money constraints, imitation is the time and cost efficient way of spreading e-learning throughout Libya. It will also make it easier to regulate the e-learning initiatives as the schools would be imitating each other. This will also make it easier for accrediting agencies to give accreditation to schools. Moreover, this will also be helpful in setting standards which the new entrants will follow to start dispensing e-learning in Libya.

Due to this reason the normative expectations get reinforced on administrators and teachers. Therefore, the skills shortage should be fulfilled accordingly which requires collaboration between accrediting agencies and universities in Libya. Further, accrediting agencies and universities should enter into collaboration for reinforcing e-learning system in Libya. It has also been observed that much of the financial resources in Libya are being spent on fulfilling the basic necessities as the country is war stricken. The income and resultantly the budget of Libyan government in not sufficient for the restructuration of entire education system and that too within shorter time period. It is also important to note that when violent conflicts take place, the human capital tend to migrate from conflict areas in search of safety and security. This also results in brain drain. Besides, the Libyan government of the past also did not enjoy healthy relationship with neighbors due to which it is unable to attract foreign direct investment from neighboring or other countries. Resultantly, the ICT infrastructure is also not likely to undergo a massive change. However, the e-learning system can still be developed in the country through basic public infrastructure such as electricity and internet supply and teachers' training. This will ensure that the learning system resumes in the country.

It has also been observed that there is lack of technical skills, awareness, understanding and communication of e-learning model in English language which has only added into the complications for Libyan education system to convert to e-learning system. The participants highlighted the major challenges facing the education system in Libya which prevents the switching to e-learning system. These challenges include the low use of technology, lack of

future planning, limited number of computer labs, lack of proper ICT infrastructure, power influence, limited internet services outside urban areas, and power influence. Moreover, the political leaders and teachers are not IT literate. The curriculum now in force in Libya is not updated and modern to meet the requirements of dispensing education through ICT. This also presents a prominent barrier to implement e-learning system in Libya. Therefore, the aim of this research is to highlight the benefits and barriers of offering e-learning system as an alternate means of dispensing education at secondary level in Libya. At present the major barrier facing the Libyan government to meet any objective is the general lack of financial resources. Due to this reason, the Libyan government is attempting to engage with charity organizations, NGOs, international donors, and other members of the community who can offer help in developing the e-learning system.

The struggle of the public schools to bring themselves in line with the demands of the society pushes them towards homogenization. This struggle takes place as schools tend to align themselves with a certain classification which Cohen (et al. 1972) regarded as organized anarchies. It has observed that organized anarchies do not seek investment on return meaning thereby that public schools are to be differentiated from private schools because former does not seek return on investment but latter does. The question then arises about the goal of education system in Libya. The answer is not simple and straightforward as there are numerous objectives, goals and intended outcomes which need be shared with all the stakeholders in the country.

It is also important to note that the education system of a country does not have simple and straightforward goals as different stakeholders involved in the system also have concerned goals and objectives of their own (Macfadyen & Dawson, 2012). Besides, in a country like Libya which is war stricken, there are uncertainties involved at multiple levels. For example, the answer to the question, "what is the best method of dispensing education in post-conflict times", is that it depends. Questions about other fields may have similar ambiguous answers as well. Moreover, the fluid participation of the stakeholders also render the answer to such questions complex. For example, these organized anarchies have different professionals involved in utilizing different strategies for teaching the students and evaluating their performance. In post-conflict times, the void that arises at institutional level is attempted to be filled up with external organizations, unions, professional associations, etc. Therefore, the inclusion of all such organizations is necessary for devising a concrete policy and implementing it for e-learning education system in Libya.

This then also establish a myriad of goals which the education organizations have to adopt to legitimize their institution. By adhering to such goals and corresponding policies, the organizations then gain the confidence of the society as they adhere to the expectations of the major stakeholders in the society. When the organization is able to legitimize its presence in the society, it saves itself from the criticism which would otherwise be levied against it (Aldrich, 2000). The researchers from the field of institutional theory indicated that education organizations stretch to different lengths for maintaining the legitimacy of their presence and meeting the demands of their stakeholders. Therefore, it would be difficult to implement e-learning system in Libya outrightly because different stakeholders would be involved with each having goals of their own which the educational institutions would have to meet to maintain the legitimacy of their presence.

The motivation of those involved in dispensing education is of paramount importance. It is important to motivate them through intrinsic and extrinsic means so that they can dispense education in post-conflict period. However, it is important to note that the replication process may also take place during this time of asserting legitimacy for the existence of educational institute in post-conflict period; meaning thereby that organizations will imitate each other in following the best practices to assert legitimacy in society and attract students. This will result in homogenization of institutes. The organizations imitate each other in a bid to maintain best practices of the industry so that they are rewarded in their effort to follow the rules and regulations. However, imitation is not conducive to change (Rowan & Miskel, 1999). Thus, imitation would not bring the change required for implementing e-learning system in Libya. Institutional theory also informs that new schools do not achieve success rapidly by doing something new. Instead they achieve success by following the same path which others took i.e. imitate the practices of other established schools. However, once e-learning system has been established and implemented, the imitation after that would be conducive to dispensing e-learning in Libya.

The creation of new organizations by following the pattern of existing organizations is referred to as imprinting. In this process the replication of existing schools takes place which reinforces the homogenization of institutions. This imprinting would be helpful once the e-learning system is introduced and implemented in Libya as the new institutions would follow the footsteps of the institutes who are dispensing education successfully through e-learning system. Any educational institute which would reject e-learning system would fear losing legitimacy of its existence. However, the successful implementation would require high level of motivation

among the workforce in line with the AMO theory. By using this theory (ability, motivation and opportunity), the e-learning system can be delivered through electronic system as highlighted in research framework. By training the teachers and administrative about e-learning system their ability in ICT can be enhanced and by highlighting its benefits for their safety and security and that of students, the teachers and administrative staffs can be motivated to use the e-learning system as an opportunity to dispense education safely to students.

It is imperative that the attitude of school administrators and teachers is being explored with respect to e-learning and such measures are taken which enhance their motivation to use the e-learning system for dispensing education. This research builds the research framework on the basis of AMO theory because it is helpful to understand the motivation level of the teachers and enhancing their ability of adopting new systems for contributing towards delivering e-learning education successfully in Libya. As the current research aims at introducing e-learning system in Libya, it is imperative that institutional theory is being understood for the purpose of change management in Libyan education sector.

The first objective of the current research is exploring the challenges which the Libyan secondary schools face in a post-conflict period. Damaged infrastructure of schools and life-threatening situation has caused students and teachers to leave the school. It has also been observed that there is much lower attendance of students and teachers in public schools particularly because these schools lack the infrastructure and resources to dispense education. The physical restoration of all schools across the country would take decades due to limited resources available to Libyan government. Moreover, due to limited financial resources the government is also facing issues to give salaries to teachers and administrative staff of the school due to which the public schools have shut down as well. Children also left school because their parents could not afford sending them to school. Therefore, it is in the wake of these challenges that the alternate need be suggested which is effective across the board.

The second objective of the research is critical evaluation of current infrastructure and the hindrances in the way of implementing e-learning system in Libya. It has been observed that the Libyan government is looking to bring the secondary school students back into education stream at earliest. However, due to damage to infrastructure during war, it is now difficult to secure attendance of the students all at once because many public schools are not functional in the country anymore due to infrastructure damage. Further, the complete restoration of public schools would require decades due to huge amount needed to restore the infrastructure.

It has also become impossible due to lack of internet facilities and electricity to dispense education through public schools. In such situation, restoring mainly the internet and electricity infrastructure would be conducive to restoring education if e-learning system is introduced. This will engage students from the convenience of their home instead of having to restore the schools and secure attendance of students there. At the same time, mass awareness need also be created among people so that parents, teachers, administrative staff and students are prepared for the change in education sector by taking to e-learning system instead of classroom setting for education. It has also been observed that another prominent challenges are language barrier and insufficient technical expertise. Since much of the local business is carried out in Arabic language and English language is less taught and spoken in Libya, therefore, there is limited ability to operate ICT infrastructure as well. The situation is made further complicated due to limited technical experts. This can be overcome by giving proper training to technical staff and introducing English language as medium of instruction as well. It is important to note that despite the cost and time efficiency of e-learning system, it still requires financial investment and technical expertise to be successfully operational.

Another objective of the current research is the development of framework about addressing challenges related to e-learning system such as insufficient infrastructure, poor finances, limited understanding of foreign language (English), safety concerns, and technology adoption. The current research developed a framework highlighting the transformation of educational system into e-learning apt system for education at secondary level at least. The research framework showed that much of the financial resources are spent by the government for meeting the basic needs of people in post-conflict period. Due to this reason, it has limited funds to restore the public infrastructure related to education. Moreover, the human capital also migrated from the country during war times. Therefore, it is now imperative to design alternate education system for addressing the education needs of the society which is facing shortage of teachers and staff as well as of schools.

The research framework is built on the basis of DOI, AMO and institutional theories highlighting the barriers faced by the Libyan education system and devising ways to overcome such challenges. It has also been observed that even though the educational and political leadership is developing computer labs, public libraries, internet services, and electricity supply, the progress is still slow due to limited span of such activities. It has also been observed that there is need for investment in informational sessions, training, incentives, workshops, knowledge sharing, stakeholder collaboration and perceived advantages of e-learning system. This will be helpful in designing and implementing the e-learning education system in Libya.

### 7.1.1 First objective: To explore the major challenges such as financial, infrastructure, security and safety, foreign language understanding, technology adoption and usage for secondary schools during the post-conflict period in Libya.

These challenges are grouped into four categories: safety and security, challenges in schools, damaged infrastructure, economic health and social issues. It is found that during the violence, life threat was high for students in secondary schools. Kidnapping, assault and murder has become commonplace and these serious crimes have increased the stress and fear among communities as a whole with the result that parents are afraid to continue the schooling of their beloved children. It is found that the number of non-functional school buildings, lack of financial resources to pay teachers' salaries, damaged school buses, free arrangement of books and uniforms, migration of teachers and students' families have created challenges. The migration of teachers, students, and other families has created more issues preventing the continuation of secondary school during the post-conflict period in Libya. The majority of the study participants believed that no guarantees existed to suppose that violent conflicts would evaporate. The issues of limited electricity, lack of internet services, high illiteracy, high crime rates and conflicts are common among those countries which are influenced by violent conflicts. It is found that some secondary schools had damaged buildings, some were overcrowded with students, and some were functioning with very limited numbers of teachers and other facilities. Some of the participants indicated that the ministry of education and political leadership generally believed it would take between ten and twenty years for the national infrastructure to be re-constructed, because for the moment all efforts are concentrated on the 9ver 80% of the population that ha become homeless and forced to live in temporary shelters, being unable to afford necessities such as shelter, food, health facilities, and clothes. The participants shared personal stories not only of having lost the precious lives of many students, teachers, colleagues and family members but also their financial standing and living resources which increased the challenges to restarting education.

### 7.1.2 Second objective: to critically evaluate the current infrastructure and barriers to introducing e-learning as an alternative education system in post-conflict time.

It has been found that although the majority of post-secondary students and teachers wanted to restart online education, the limited financial resources, computer and internet facilities,

employment opportunities, and wage plan stood in the way of its implementation. The study has grouped the current infrastructure situation and barriers into six categories: existing infrastructure, government planning, national culture and literacy rate, curriculum and accrediting, motivation, and ability and skills.

### 7.1.3 Third objective: to detect benefits to offer e-learning as an alternative education system for secondary schools in Libya.

The findings reveal that the education ministry and other stakeholders can start e-learning practices, but that major efforts are required to build the online system so that maximum numbers of teachers and students can engage in their free time. It has been found that some of the private secondary schools have recently launched online education, but it is expensive and not affordable for those who are struggling to atisfy their basic survival needs. Due to not being paid their salaries and becoming demotivated, many school teachers left their jobs creating a vacuum in the teaching profession. These teachers could be re-employed with the introduction of an e-learning system.  It is found that the use of mobiles and PCs is high among students and teachers and consequently this might be a way of building the skills required for online education.

### 7.1.4 Fourth objective: to understand how an e-learning system can prove as an effective alternative system in post-conflict time.

The implementation of e-learning is certainly a viable alternative to traditional education in the current post-conflict climate because it is an option that cuts the cost of education, and now many people are living in poverty. However, the Libyan government must build awareness natonally by conducting training and motivational sessions on the e-learning system and highlighting to communities at large how such a system can be affordable, durable, safe and respectful of people's time which may have other demands on it through work. Such a system will be especially effective if it is designed to offer both Arabic and English languages as this will facilitate participation from both teachers and students and prepare students for higher education opportunities in other countries where the curriculum is delivered in English. It is found that although the political and educational leadership is developing public libraries, computer labs, electricity supplies, and fast internet services, the speed is very low due to low levels of investment. It has also been found that the investment in training, informational sessions, workshops, incentives, perceived benefits associated with e-learning system, knowledge sharing, and media collaboration can enhance the support and pressure to bring e-

learning forward in the secondary school environment. Collaboration with the media is important to build awareness among the general public of the benefits of e-learning, especially in relation to lifelong learning. Advertising the benefits of flexible study and working hours, low cost, high content quality and accessibility, no geographical limitations, and the new skills it brings in actually using this advanced technology, is also appropriate. It is suggested that the social media can create interactive discussion and place pressure on the ministry as most of members and other political individuals have official and personal accounts, and are active and accessible. Therefore, social influence and pressure thorough the media can lobby the government to select an alternative education system, which is safe, cheap, and able to engage the maximum number of students.

## 7.2 CONTRIBUTION

1. The study is first to explore how the violent conflict has influenced the educational system and how e-learning can provide a transformation of the traditional educational system in the post-conflict period when the public infrastructure has been destroyed and the population is demotivated and worrying about their children's secondary education. It therefore makes a contribution to the literature. It also presents information concerning how an e-learning system is appropriate and an alternative method of study and this makes a contribution both to the literature and to practice.

2. The study makes a methodological contribution by involving individuals who are immediate in the post-conflict context, and either engaged in trying to deliver education in the climate of severe challenge, or in trying to make policy and allocate resources to make improvements to the delivery of education.

3. The study has provided a research framework which is supported by various theories with the purpose to introduce e-learning system as an alternative method in post violent conflict situation. It offers a rich perspectives framework that is founded on four theories, and that allows one to the benefits and opportunities provided by the educational system and how stakeholders are aware and motivated to adopt this system. This framework makes a contribution to the understanding of the role of leadership and other forces in the deployment of technology (i.e., e-learning system) in public organization settings.

4. The study has provided insight into how the social media can be used to exert pressure on political and educational leadership by publicly raising the issues of teacher

shortages, overcrowded classes, safety and security, flexible study hours, and limited financial budget.

5. The study also brings insight in respect of resources that can be tapped into, as most of the participants commented on the lack of vision possessed by the political and educational leadership regarding the recovery of education, and suggested that experts who have built e-learning systems already should be asked to help.

6. This research provide rich knowledge two implement e-learning system during the conflict in a country . This research also provide in depth understanding about the relevant stakeholders to satisfy their concern to successfully implement the learning system within a developing country.

7. This research is also providing the institutional level knowledge to successfully implement the learning system force country schools in a developing country during the post conflict time that would also be helpful for the other developing countries where is the post conflict.

## 7.3  LIMITATIONS AND FUTURE DIRECTIONS

Although the study has provided strong practical and theoretical contributions aiming to highlight the transition of educational systems in post-conflict situations for secondary schools, there are some limitations and therefore, some guidance for future sudies. The study is qualitative in nature and used semi-structured interviews which are not free from bias on the part of both interviewer or interviewee (Aslam et al., 2018a; Aslam et al., 2018b). Consequently, the results are not generalizable to larger population (Aslam et al. 2018a; Aslam et al., 2018b) especially when social, political, educational, economic, and technological perspectives are different among countries due to the nature and influence of violent conflicts. The community response and the motivation and engagement of stakeholders in respect of athe transition in the educational system may also vary among different social structures and cultures and therefore, the results of the present study are not generalizable to other countries which are facing violent conflict. Although the research framework is supported with the help of multiple theories and existing literature, the validity and generalizability of this research framework can be tested in future studies using the multiple data collection and quantitative analysis method. The results of this study are specifically based on the public institutional settings; therefore the role of social, political, educational, economic and technological perspectives are different for private organizations (Aslam et al., 2018a; Aslam et al., 2018b).

It doesn't fit as this research is based on the social constructionism philosophical position which proved helpful to explore the context in depth to understand the issues and enablers to implement the electronic education system during the post conflict time in Libya. As the social constructionism epistemological position required small number of sample size and researcher involved throughout the research process that would help to understand the local cultural political and social factor for the implementation of electronic system for Scottish schools in Libya. While the social constructionism epistemologically positions not helpful to journalise the result therefore it is recommended for the future researchers to take the large sample size through including the teachers And policy makers to generalise the result of this research. additionally this research took the qualitative research method which proved helpful to explore the issues and enablers related to the political social and cultural factors while this method not useful to collect the data from large number sample size their fall it does not also align with the deduction research approach therefore it is recommended for the future researchers to adopt the deductive research approach with qualitative research method to test the model which is developed by this research. The future researcher can also conduct the research to investigate the effectiveness of electronic learning for scandal schools during the public emergency for example pandemic.

## 7.4 SUMMARY

This conclusion has discussed the concise form of results, theoretical and practical contributions made by the study, and its limitations. The results have summarized the challenges secondary schools face when government authorities and law enforcement agencies fail to offer a comfortable environment to continue educational activities. The study presented a research framework that highlighted that the Libyan government should invest in technological competencies, human capital, and system development by engaging all stakeholders as well as by borrowing money from international donors. It was determined that help is needed to fund the recovery and the introduction of the e-learning system. The research framework is supported by the existing literature, but its validity and generalizability is something to be tested in future studies.
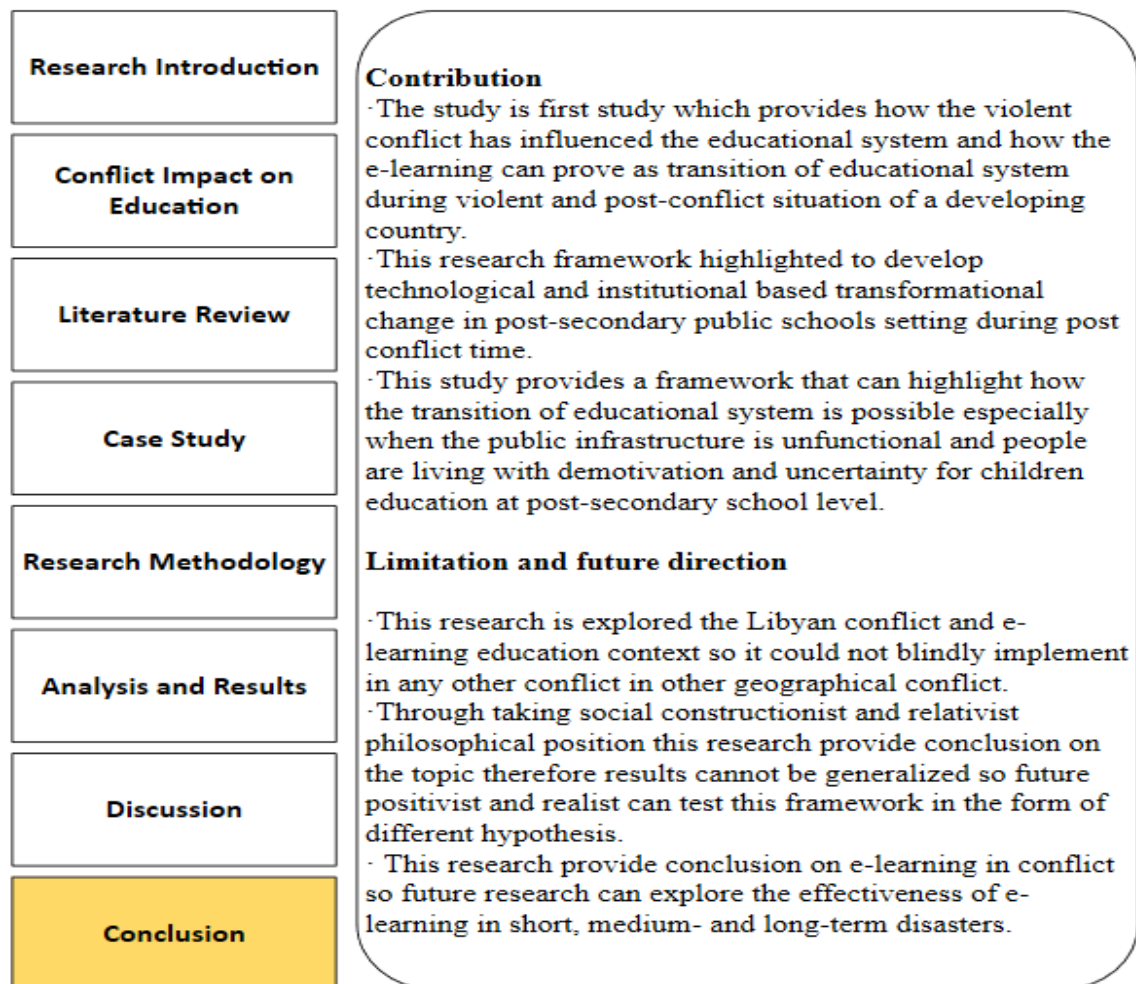


Figure 7-1: Thesis progress

# REFERENCES

Abdi, A. A. (1998). Education in Somalia: History, destruction, and calls for reconstruction. Comparative Education, 34, 327–340. doi:10.1080/03050069828171

Aberšek, B., Borstner, B., & Bregant, J. (2014). Virtual teacher : Cognitive approach to e- learning material. Newcastle-upon-Tyne: Cambridge Scholars Publishing.

Adavbiele, J. A. (2017). Challenges to E-Learning in Public Secondary Schools in Edo State in The 21st Century. International Journal of Education and Practice, 5(7), 110-117.

Adler, P. S. (2012). The sociological ambivalence of bureaucracy: From weber via gouldner to Marx. Organization Science, 23(1), 244-266. https://doi.org/10.2478/jesr-2018-0034

Ahmadjian, C. L. (2016). Comparative institutional analysis and  institutional  complexity. Journal of Management Studies, 53(1), 12-27. https://doi.org/10.7227/RIE.90.1.6

Ainscow M (2011) Some Lessons from international efforts to foster inclusive education. Innovacio´nEducativa 21: 55–74.

Ajdukovic, D., Ajdukovic, D., Bogic, M., Franciskovic, T., Galeazzi, G. M., Kucukalic, A., Priebe, S. (2013). Recovery from posttraumatic stress symptoms: A qualitative study of attributions in survivors of war. PloS One, 8(8), e70579. doi:10.1371/journal.pone.0070579

Akbulut-Yuksel, M. (2014). Children of war: The long-run effects of large-scale physical destruction and warfare on children. Journal of Human Resources, 49(3), 662;634;-662. doi:10.1353/jhr.2014.0021

Akresh, R., & de Walque, D. (2008). Armed conflict and schooling: Evidence from the 1994 Rwandan genocide. Institution for the Study of Labor (Working Paper No. 3516). Washington, DC: World Bank.

Akresh, R., & De Walque, D. (2008). Armed conflict and schooling: Evidence from the 1994 Rwandan genocide. The World Bank.

AL-Araibi, A. A. M., Mahrin, M. N. R. B., & Yusoff, R. C. M. (2016). A systematic literature review of technological factors for e-learning readiness in higher education. Journal of Theoretical & Applied Information Technology, 93(2), 500-521. https://doi.org/10.5897/IJEAPS2017.0546

Alaugab, A. M. (2007). Benefits, barriers, and attitudes of Saudi female faculty and students toward online learning in higher education (Doctoral dissertation, University of Kansas).

Al-Azawei, A., Parslow, P., & Lundqvist, K. (2016). Barriers and opportunities of e- learning implementation in Iraq: A case of public universities. The International Review of Research in Open and Distributed Learning, 17(5).https://doi.org/10.7227/RIE.90.1.6

Alderman, H., Hoddinott, J., & Kinsey, B. (2006). Long term consequences of early childhood malnutrition. Oxford economic papers, 58(3), 450-474. https://doi.org/10.5897/IJEAPS2016.0487

Aldrich, H. (2000). Organizations evolving. Thousand Oaks, CA: Sage. Argyris, C. (1999). On organizational learning (2nd ed.). Malden, MA: Blackwell.

Alfes, K., Shantz, A. D., Bailey, C., Conway, E., Monks, K., & Fu, N. (2019). Perceived human resource system strength and employee reactions toward change: Revisiting human resource's remit as change agent. Human Resource Management, 58(3), 239-252. https://doi.org/10.1007/s11759-015-

Alhmali, R. (2007). Student attitudes in the context of the curriculum in Libyan education in middle and high schools (Doctoral dissertation, University of Glasgow).

Alhojailan, M. I. (2012). Thematic analysis: A critical review of its process and evaluation. West East Journal of Social Sciences, 1(1), 39-47. https://doi.org/10.1080/15391523.2012.10782600

Alkabashi , O and Wu, S (2009) Obstacles to ICT implementation and integration into Basic schools in Libya. Doctoral dissertation :Salford University.

Allen, Bingham, T. B., W, M., & Tony. (2016). Michael allen's guide to e-learning: Building interactive, fun, and effective learning programs for any company (2nd ed.). US: Wiley.

Allen, M. W. (2007). Designing successful e-learning: Forget what you know about instructional design and do something interesting. San Francisco, Calif;Chichester;: Pfeiffer.

Almansuri, A. A., & Elmansuri, R. A. (2015). Utilizing E-Learning Systems in the Libyan Universities: Case Study; Tripoli University, Faculty of Engineering. International Association for Development of the Information Society.

Al-Shehri, A. M. (2010). E-learning in Saudi Arabia: 'To E or not to E, that is the question'. Journal of family and community medicine, 17(3), 147-150. https://doi.org/10.1007/s12061-017-9235-5

Amusan, L. (2013). Libya's implosion and its impacts on children. Journal of International Women's Studies, 14(5), 66. https://doi.org/10.1111/bjet.12651

Ananga, P., & Biney, I. K. (2018). Comparing face-to-face and online teaching and learning in higher education. MIER Journal of Educational Studies, Trends and Practices, 7(2), 165- 179. https://doi.org/10.3991/ijac.v11i1.9235

ANDERFUHREN-BIGET, S., VARONE, F., & GIAUQUE, D. (2014). policy environment and public service motivation. Public Administration, 92(4), 807-825.

Anderson, A., G. Martone, J. Perlman Robinson, E. Rognerud, and J. Sullivan-Owomoyela. (2006). Standards put to the test. Implementing the INEE minimum standards for education in emergencies, chronic crisis and early reconstruction. London: Humanitarian Practice Network, Overseas Development Institute.

Anderson, T. (Ed.). (2008). The theory and practice of online learning. Athabasca University Press.

Andrews, R., & Haythornthwaite, C. A. (2007). The SAGE handbook of e-learning research. London;Los Angeles, Calif;: SAGE.

Angervil, G. (2015). Challenges to the functionalism-positivism and social construction integration: An essay in review of jong Jun's the social construction of public administration: Jong S. jun, the social construction of public administration: Interpretive and critical perspectives.albany, NY: State university of new york press, 2007. Administrative Theory & Praxis, 37(4), 284-290. doi:10.1080/10841806.2015.1083834

Ariana, A., Amin, M., Pakneshan, S., Dolan-Evans, E., & Lam, A. K. (2016). Integration of traditional and E-learning methods to improve learning outcomes for dental students in histopathology. Journal of dental education, 80(9), 1140-1148. https://doi.org/10.3991/ijac.v11i1.9235

Arinto, P. B. (2016). Issues and challenges in open and distance e-learning: Perspectives from the Philippines. The International Review of Research in Open and Distributed Learning, 17(2), 162-180. https://doi.org/10.3390/sym13010099

Armstrong, M. A., & Stewart-Gambino, H. (2016). Building curricular diversity through a "social movement": How faculty networks support institutional change. JCT (Online), 31(1), https://doi.org/10.1007/s10780-019-09358-0

Aslam, U., Arfeen, M., Mohti, W., & Rahman, U. U. (2015). Organizational cynicism and its impact on privatization (evidence from federal government agency of Pakistan). Transforming Government: People, Process and Policy, 9(4), 401-425. https://doi.org/10.1111/bjet.12185

Aslam, U., Muqadas, F., & Imran, M. K. (2018). Exploring the sources and role of knowledge sharing to overcome the challenges of organizational change implementation. International Journal of Organizational Analysis. https://doi.org/10.3390/educsci10090232

Aslam, U., Muqadas, F., Imran, M. K., & Saboor, A. (2018b). Emerging organizational parameters and their roles in implementation of organizational change. Journal of Organizational Change Management. https://doi.org/10.1371/journal.pone.0137158

Athens, L. (2012). Mead's analysis of social conflict: A radical interactionist's critique. The American Sociologist, 43(4), 428-447. doi:10.1007/s12108-012-9164-3

Ayres, L. (2008). Semi-structured interview. The SAGE encyclopedia of qualitative research methods, 811-813.

Bach, S., Haynes, P., & Smith, J. L. (2014). Online learning and teaching in higher education. GB: Open University Press.

Bair, S. D. (2011). Making good on a promise: The education of civil war orphans in pennsylvania, 1863 - 1893. History of Education Quarterly, 51(4), 485;460;-485. doi:10.1111/j.1748-5959.2011.00354.x

Bakker, A. B. (2015). A job Demands–Resources approach to public service motivation. Public Administration Review, 75(5), 723-732. https://doi.org/10.1371/journal.pone.0137158

Barakat, S., Hardman, F., Connolly, D., Sundaram, V., & Zyck, S. (2010). Programme review and evaluability study (PRES): UNICEF's education in emergencies & post-crisis transition (EEPCT) programme. New York: UNICEF. .

Baran, E. (2014). A review of research on mobile learning in teacher education. Journal of Educational Technology & Society, 17(4), 17-32. https://doi.org/10.1007/s10639-019-09923-1

Barth, M. (2013). Many roads lead to sustainability: A process-oriented analysis of change in higher education. International Journal of Sustainability in Higher Education, 14(2), 160-175. https://doi.org/10.12928/telkomnika.v18i3.14817

Bartley, S.J. and Golek, J.H. 2004 Evaluating the cost effectiveness of online and face-to- face instruction. Journal of Educational Technology & Society, 7(4), 227-244.

https://doi.org/10.1136/bmjopen-2014-006921

Bates, A. T. (2005). Technology, e-learning and distance education. Routledge.

Beber, B., & Blattman, C. (2013). The logic of child soldiering and coercion. International Organization, 67(1), 65-104. doi:10.1017/S0020818312000409

Beitelmal, W., Molenaar, K. R., Javernick-Will, A., & Pellicer, E. (2017). Challenges and barriers to establishing infrastructure asset management. Engineering, Construction and Architectural Management, 24(6), 1184-1202. doi:10.1108/ECAM-12-2015-0200

Bekerman, Z., and C. McGlynn, eds. (2007). Addressing ethnic conflict through peace education. London: Palgrave Macmillan.

Bell, B. S., & Federman, J. E. (2013). E-learning in postsecondary education. The Future of Children, 23(1), 165-185. doi:10.1353/foc.2013.0007

Bellamy, A. J., & Williams, P. D. (2011). The new politics of protection? Côte d'Ivoire, Libya and the responsibility to protect. International Affairs, 87(4), 825-850. https://doi.org/10.1136/bmjopen-2014-006921

Bellé, N. (2013). Experimental evidence on the relationship between public service motivation and job performance. Public Administration Review, 73(1), 143-153. https://doi.org/10.1088/1757-899X/928/2/022021

Belle, N., & Cantarelli, P. (2015). Monetary incentives, motivation, and job effort in the public sector: An experimental study with italian government executives. Review of Public Personnel Administration, 35(2), 99-123. https://doi.org/10.1186/1752-4458-5-30

Bellows, J., and Miguel, E. (2006). War and institutions: New evidence from Sierra Leone. The American economic review, 96(2), 394-–-399. . https://doi.org/10.1007/s10639-020-10219-y

Benamer, H. T. S., Bakoush, O., Lund University, Nephrology, Njurmedicin, & Lunds universitet. (2009). Medical education in libya: The challenges. Medical Teacher, 31(6), 493-496. doi:10.1080/01421590902832988

Ben-Asher, S. (2019). Teaching and research: Identity representations among teacher- education faculty members, decades after an institutional change. The Journal of Experimental Education, 87(4), 680-695. doi:10.1080/00220973.2018.1543642

Bensalah, K. (Ed.). (2002). Guidelines for education in situations of emergency and crisis: EFA strategic planning. Paris: UNESCO. 258

Bensallah, K., Sinclair, M., Hadj Nacer, F., Commisso, A., and Bokhari, S. 2000. Thematic study: Education in situations of crisis and emergency. Challenges for the new century. Paris: UNESCO. CommonwealthSecretariat. n.d. http://www.thecommonwealth.org/Templates/STPDInternal.

Bergom, I. M. (2015). The professor behind the screen: Four case studies of online teaching in business [electronic resource]

Berman, E. P. (2012). Explaining the move toward the market in US academic science: How institutional logics can change without institutional entrepreneurs. Theory and Society, 41(3), 261-299. .

https://doi.org/10.1007/s10639-020-10219-y

Bernard, H. R. (2011). Research methods in anthropology: Qualitative and quantitative approaches (5th ed.). Lanham, MD: AltaMira.

Best, S. G. (2006). The methods of conflict resolution and transformation. Introduction to peace and conflict studies in West Africa: A Reader. Ibadan: Spectrum Books Ltd.

Bishop, C. P., Shumway, C. R., & Wandschneider, P. R. (2010). Agent heterogeneity in adoption of anaerobic digestion technology: Integrating economic, diffusion, and behavioral innovation theories. Land Economics, 86(3), 585-608. https://doi.org/10.1353/lib.2016.0032

Blattman, C., & Annan, J. (2010). The consequences of child soldiering. The Review of Economics and Statistics, 92(4), 882-898. doi:10.1162/REST_a_00036

Blessing, L. T., & Chakrabarti, A. (2009). DRM, a design research methodology. Springer Science & Business Media.

Boduszyński, M. P., & Pickard, D. (2013). Libya starts from scratch. Journal of Democracy, 24(4), 86-96. doi:10.1353/jod.2013.0073

Boettcher, J. V., & Conrad, R. (2016). The online teaching survival guide: Simple and practical pedagogical tips (Second ed.). US: Jossey-Bass.

Bøgh Andersen, L., & Holm Pedersen, L. (2012). Public service motivation and professionalism. International Journal of Public Administration, 35(1), 46-57. https://doi.org/10.1353/lib.2016.0032

Bond, N. (2013). Ferdinand tönnies' appraisal of karl marx: Debts and distance. Journal of Classical Sociology, 13(1), 136-162. doi:10.1177/1468795X12474060

Bove, V., Elia, L., & Smith, R. P. (2016). On the heterogeneous consequences of civil war. Oxford Economic Papers, gpw050. doi:10.1093/oep/gpw050

Bowen, W. G., & Lack, K. A. (2015;). Higher education in the digital age (REV - Revis;1; ed.). New York: Ithaka.

Bowsher, G., Bogue, P., Patel, P., Boyle, P., & Sullivan, R. (2018). Small and light arms violence reduction as a public health measure: The case of libya. Conflict and Health, 12(1), 29. doi:10.1186/s13031-018-0162-0

Boyatzis, R. E. (1998). Transforming qualitative information: Thematic analysis and code development. sage.

Boyden, J., & Ryder, P. (1996). Implementing the right to education in areas of armed conflict. Oxford: University of Oxford. .

Bozeman, B., & Su, X. (2015). Public service motivation concepts and theory: A  critique. Public Administration Review, 75(5), 700-710. Bradford, S., & Cullen, F. (2012). Research and research methods for youth practitioners. London: Routledge.

Brahm, E. (2003). Hurting stalemate stage. In Burgess, G. & Burgess, H. (eds.), Beyond intractability. University of Colorado: Conflict Information Consortium.

Brahm, F., & Tarziján, J. (2014). Transactional hazards, institutional change, and capabilities: Integrating the theories of the firm. Strategic Management Journal, 35(2), 224- 245. https://doi.org/10.1007/s10639-018-9757-8

Brand, J. L. (1996). Can we decide between logical positivism and social construction views of reality? American Psychologist, 51(6), 652-653. doi:10.1037/0003- 066X.51.6.652

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. Qualitative research in psychology, 3(2), 77-101. https://doi.org/10.1186/s12889-016-3616-6

Braun, V., Clarke, V., Hayfield, N., & Terry, G. (2018). Thematic analysis. Handbook of research methods in health social sciences, 1-18. https://doi.org/10.1371/journal.pone.0233802

Bray, L. E., & Russell, J. L. (2018). The dynamic interaction between institutional pressures and activity: An examination of the implementation of IEPs in secondary inclusive settings. Educational Evaluation and Policy Analysis, 40(2), 243-266. https://doi.org/10.1186/s12909-016-0852-5

Brinkmann, S. (2014). Interview. In Encyclopedia of critical psychology (pp. 1008-1010). Springer New York.

Broadbent, B. (2002). ABC's of e-learning: Reaping the benefits and avoiding the pitfalls. John Wiley & Sons, Inc..

Brown, S., & Sleath, E. (2015). Research methods for forensic psychologists: A guide to completing your research project. London: Routledge.

Brown, W. (2014). Is marx (capital) secular? Qui Parle: Critical Humanities and Social Sciences, 23(1), 109-124. doi:10.5250/quiparle.23.1.0109

Buchowski, M. (2015). Marx for poles. Dialectical Anthropology, 39(2), 219-223. doi:10.1007/s10624-015-9381-6

Buckingham, D. (2013). Beyond technology: Children's learning in the age of digital culture (1st ed.). Oxford: Wiley.

Buckland, P. (2005). Reshaping the future: Education and post conflict reconstruction. Washington: World Bank.

Bundervoet, T. (2012). War, Health, and Educational Attainment: A Panel of Children during Burundi's Civil War: Households in Conflict Network.

Burley, D., Gnam, C., Newman, R., Straker, H., & Babies, T. (2012). Leveraging higher education consortia for institutional advancement. International Journal of Educational Management, 26(3), 274-283. doi:10.1108/09513541211213345.

Bush, K. D., & Saltarelli, D. (2000). The two faces of education in ethnic conflict: Towards a peacebuilding education for children. Florence: UNICEF Innocenti Research Centre.

Busnaina, I., & Woodall, T. (2015). Doing business in libya: Assessing the nature and effectiveness of international marketing programs in an evolving economy. International Business Review, 24(5), 781-797. doi: 10.1016/j.ibusrev.2015.02.002

Buvinić, M., Das Gupta, M., & Shemyakina, O. N. (2014). Armed conflict, gender, and schooling. World

Bank Economic Review, 28(2), 311-319. doi:10.1093/wber/lht032

Caprara, G. V., Eisenberg, N., & Alessandri, G. (2017). Positivity: The dispositional basis of happiness. Journal of Happiness Studies, 18(2), 353-371. doi:10.1007/s10902-016- 9728-y

Carstensen, L. L., & Mikels, J. A. (2005). At the intersection of emotion and cognition: Aging and the positivity effect. Current Directions in Psychological Science, 14(3), 117- 121. doi:10.1111/j.0963-7214.2005. 00348.x

Caruso, A., & Roberts, S. (2018). Exploring constructions of masculinity on a men's body- positivity blog. Journal of Sociology, 54(4), 627-646. doi:10.1177/1440783317740981

Casal, P. (2015). Marx, rawls, cohen, and feminism. Hypatia, 30(4), 811-828. doi:10.1111/hypa.12176

Cassell, C., Cunliffe, A. L., & Grandy, G. (2017). The SAGE handbook of qualitative business and management research methods. Los Angeles: SAGE.

Cecere, G., Mancinelli, S., & Mazzanti, M. (2014). Waste prevention and social preferences: The role of intrinsic and extrinsic motivations. Ecological Economics, 107, 163-176.

Cerra, V., & Saxena, S. C. (2008). Growth dynamics: The myth of economic recovery. The American Economic Review, 98(1), 439-457. doi:10.1257/aer.98.1.439

Chamarbagwala, R., & Morán, H. E. (2011). The human capital consequences of civil war: Evidence from Guatemala. Journal of Development Economics, 94, 41–61. doi: 10.1016/j.jdeveco.2010.01.005

Chan, C. (2019). Crossing institutional borders: Exploring pre-service teacher education partnerships through the lens of border theory. Teaching and Teacher Education, 86, 102893. Charlson, F. J., Steel, Z., Degenhardt, L., Chey, T., Silove, D., Marnane, C., & Whiteford, H. A. (2012). Predicting the impact of the 2011 conflict in libya on population mental health: PTSD and depression prevalence and mental health service requirements. PloS One, 7(7), e40593. doi: 10.1371/journal.pone.0040593

Chen, C. (2014). Nonprofit managers' motivational styles: A view beyond the intrinsic- extrinsic dichotomy. Nonprofit and Voluntary Sector Quarterly, 43(4), 737-758.

Cho, Y. J., & Perry, J. L. (2012). Intrinsic motivation and employee attitudes: Role of managerial trustworthiness, goal directedness, and extrinsic reward expectancy. Review of Public Personnel Administration, 32(4), 382-406. https://doi.org/10.1186/s12960-017-0240-1

Christensen, R. K., Paarlberg, L., & Perry, J. L. (2017). Public service motivation research: Lessons for practice. Public Administration Review, 77(4), 529-542.

Clark SRP and O'Donoghue TA (2013) The case for studying school leadership at the individual school level. In: Clarke SRP and O'Donoghue TA (eds.), School Level Leadership in Post-Conflict Societies: The Importance of Context. London: Routledge, pp. 9–29.

Clark, P. G. (2013). Toward a transtheoretical model of interprofessional education: Stages, processes and forces supporting institutional change. Journal of Interprofessional Care, 27(1), 43-49. https://doi.org/10.1007/s11077-018-9339-z

Clark, R. C. (2013;). Scenario-based e-learning: Evidence-based guidelines for online workforce learning (1. Aufl.;1; ed.). US: Pfeiffer.

Clark, R. C., & Mayer, R. E. (2011;2016;). e-learning and the science of instruction: Proven guidelines for consumers and designers of multimedia learning (3rd ed.). San Francisco, Calif; Chichester; Pfeiffer.

Clark, R. C., & Mayer, R. E. (2016). e-learning and the science of instruction: Proven guidelines for consumers and designers of multimedia learning (3rd ed.). San Francisco, Calif; Chichester; Pfeiffer.

Clark, R. C., & Mayer, R. E. (2012). Scenario-based e-learning: Evidence-based guidelines for online workforce learning (1. Aufl. ed.) Pfeiffer.

Clark, R. C., & Mayer, R. E., (2011). e-learning and the science of instruction: Proven guidelines for consumers and designers of multimedia learning, third edition (3rd ed.). San Francisco, Calif: Pfeiffer.

Clarke, V., & Braun, V. (2013). Teaching thematic analysis: Overcoming challenges and developing strategies for effective learning. The psychologist, 26(2), 120-123.https://doi.org/10.1007/s11077-018-9339-z

Clarke, V., & Braun, V. (2014). Thematic analysis. Encyclopedia of quality of life and well-being research, 6626-6628. https://doi.org/10.1186/s12913-018-3422-1

Coe, S. (2017). Economic objectivity and its discontents: Reflections on marx, adorno and utopia. Sociologija: Mintis Ir Veiksmas, 40(1), 67-79. doi:10.15388/SocMintVei.2017.1.10878

Cohen, L., Manion, L., & Morrison, K. (2017). Research methods in education (8th ed.). London: Taylor and Francis.

Cohen, L., Manion, L., Morrison, K., & Bell, R. (2011). Research methods in education (7th ed.). London: Routledge.

Cohn, Carol. (2013). "Women and Wars: Toward a Conceptual Framework." In Carol Cohn (Ed.) Women & Wars. Cambridge: Polity

Collelldemont Pujadas, E. (2015). Children, education and politics in everyday life: Children, education and politics at a time of conflict - the spanish civil war (1936 - 1939). Paedagogica Historica, 51(4), 404;395; -404. doi:10.1080/00309230.2015.1047385

Collier, P. (1999). On the economic consequences of civil war. Oxford Economic Papers, 51, 168–183. doi:10.1093/oep/51.1.168

Collins, A., & Halverson, R. (2018). Rethinking education in the age of technology: The digital revolution and schooling in America. Teachers College Press.

Comninel, G. C. (2013). Critical thinking and class analysis: Historical materialism and social theory. Socialism and Democracy, 27(1), 19-56. doi:10.1080/08854300.2012.754671

Connell, A., Edwards, A. D., Hramiak, A., Rhoades, G., & Stanley, N. (2015). A practical guide to teaching computing and ICT in the secondary school (Second ed.). London: Routledge.

Conteh-Morgan, E. (2004). Collective political violence: an introduction to the theories and cases of violent conflicts. Psychology Press.

Cook, K. C., & Grant-Davie, K. (2016). Online education 2.0: Evolving, adapting, and reinventing online technical communication. Amityville, N.Y: Routledge Ltd. doi:10.4324/9781315223964

Coulomb, F., & Bellais, R. (2008). the marxist analysis of war and military expenditures, between certainty and uncertainty. Defence and Peace Economics, 19(5), 351-359. doi:10.1080/10242690802354345

Cox, M. J. (2013). Formal to informal learning with IT: Research challenges and issues for e-learning. Journal of Computer Assisted Learning, 29(1), 85-105. doi:10.1111/j.1365- 2729.2012. 00483.x

Creemers, B. P. M., & Kyriakides, L. (2010). Explaining stability and changes in school effectiveness by looking at changes in the functioning of school factors. School Effectiveness and School Improvement, 21(4), 409-427. doi:10.1080/09243453.2010.512795

Cremin, H., & Guilherme, A. (2016). Violence in Schools: Perspectives (and hope) from Galtung and Buber. Educational Philosophy and Theory, 48(11), 1123-1137. https://doi.org/10.1186/s12913-018-3422-1

Cremin, T. (2015). Teaching english creatively (Second ed.). London: Routledge.

Creswell, J. W., & Creswell, J. D. (2017). Research design: Qualitative, quantitative, and mixed methods approaches. Sage publications.

Cross, J. (2004). An informal history of eLearning. On the Horizon, 12(3), 103-110.

Crowther, D., & Lancaster, G. (2012). Research methods (2nd ed.). Hoboken: Taylor and Francis.

Cruickshank, J. (2012). Positioning positivism, critical realism and social constructionism in the health sciences: A philosophical orientation. Nursing Inquiry, 19(1), 71-82. doi:10.1111/j.1440-1800.2011. 00558.x

Cunningham, D. E., & Lemke, D. (2013). Combining civil and interstate wars. International Organization, 67(3), 609-627. doi:10.1017/S0020818313000167

Curtis, E., & Drennan, J. (2013). Quantitative health research: Issues and methods (1st ed.). Maidenhead: McGraw-Hill Education.

Dabalen, A., & Paul, S. (2012). Estimating the causal effects of conflict on education in Côte d'Ivoire (Working Paper No. 6077). Washington, DC: World Bank.

Dahrendorf, R., & Collins, R. (2006). Conflict and Critical Theories. Available on: http://www. pineforge. com/upm-data/13636_Chapter7. pdf.[Accessed on 6th October 2018].

Dallaire, Roméo A. (2010). They Fight like Soldiers, they Die like Children. Toronto: Random House.

Dapkus, M. A. (1985). A thematic analysis of the experience of time. Journal of Personality and Social Psychology, 49(2), 408.

Davies, L. (2003). Education and conflict: Complexity and chaos. Routledge.

Davies, L. (2004). Education and conflict.Complexity and chaos. London:

RoutledgeFalmer.

Dawson, C. (2009). Introduction to research methods: A practical guide for anyone undertaking a research project (4th ed.). Oxford: How To Books.

De Walque, D. (2004). The long-term legacy of the Khmer Rouge period in Cambodia (Working Paper No. 3446). Retrieved from The World Bank website: http://elibrary.worldbank.org/content/workingpaper/10.1596/1813-9450-3446

Deane, M., & Guasch, T. (2015). Learning and teaching writing online : Strategies for success. Leiden: BRILL.

Deepwell, F. (2007). Embedding quality in e-learning implementation through evaluation. Journal of Educational Technology & Society, 10(2), 34-43.

DeHart-Davis, L., Marlowe, J., & Pandey, S. K. (2006). Gender dimensions of public service motivation. Public Administration Review, 66(6), 873-887. https://doi.org/10.1186/s12913-018-3422-1

Dekker, P. J., van der Pol, J., & Brouwer, N. (2013). e-learning cookbook. TPACK in professional development in higher education Amsterdam University Press.

Delamonica, E., Mehrotra, S., & Vandemoortele, J. (2004). Education for All: How Much Will it Cost? Development and change, 35(1), 3-30.

Della Malva, A., Lissoni, F., & Llerena, P. (2013). Institutional change and academic patenting: French universities and the innovation act of 1999. Journal of Evolutionary Economics, 23(1), 211-239. https://doi.org/10.1186/s13031-018-0168-7

Demmers, J. (2014). Neoliberal discourses on violence: monstrosity and rape in borderland war. In Gender, Globalization, and Violence (pp. 39-57). Routledge.

Demmers, J. (2016). Theories of violent conflict: An introduction. Routledge.

DePalma, R., & Atkinson, E. (2010). The nature of institutional heteronormativity in primary schools and practice-based responses. Teaching and Teacher Education, 26(8), 1669-1676. https://doi.org/10.1007/s11159-019-09792-3

Dicheva, D., Mizoguchi, R., & Greer, J. (2009). Semantic web technologies for e-learning. Amsterdam: IOS Press.

DiMaggio, P. J., & Powell, W. W. (1991). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields.

Donina, D., Donina, D., Meoli, M., & Paleari, S. (2015). The new institutional governance of italian state universities: What role for the new governing bodies? Tertiary Education and Management, 21(1), 16-28. https://doi.org/10.4102/sajim.v22i1.1280

Donley, A. M. (2012). Research methods. New York: Infobase Publishing.

Donnelly, P., Benson, J., & Kirk, P. (2012). How to succeed at E-learning (12. Aufl. ed.). GB: Wiley-Blackwell.

Drever, E. (1995). Using Semi-Structured Interviews in Small-Scale Research. A Teacher's Guide.

Dubois, A., & Gadde, L. E. (2002). Systematic combining: an abductive approach to case research. Journal of business research, 55(7), 553-560. https://doi.org/10.4102/sajim.v22i1.1280

Dunlosky, J., Rawson, K. A., Marsh, E. J., Nathan, M. J., & Willingham, D. T. (2013). Improving students' learning with effective learning techniques: Promising directions from cognitive and educational psychology. Psychological Science in the Public Interest, 14(1), 4-58. doi:10.1177/1529100612453266

Dwenger, N., Kleven, H., Rasul, I., & Rincke, J. (2016). Extrinsic and intrinsic motivations for tax compliance: Evidence from a field experiment in germany. American Economic Journal: Economic Policy, 8(3), 203-232. https://doi.org/10.1371/journal.pone.0253651

Edmunds AL and Macmillan RB (2010) Leadership for Inclusion: A Practical Guide. Rotterdam: SensePublishers.

Eickelmann, B. (2018) Cross-National Policies on Information and Communication Technology in Primary and Secondary Schools: An International Perspective. Second Handbook of Information Technology in Primary and Secondary Education, pp.1-12.

Elabbar, A. (2016) Libyan Political Conflict: Effects on Higher Education Development. Scientific Research Journal (SCIRJ), IV(XII), 4(7), pp.2-16. https://doi.org/10.1111/j.1467-8535.2005.00553.x

Elaiess, R. (2017). Digital divide in libya: A general assessment. International Research : Journal of Library and Information Science, 7(3). https://doi.org/10.1186/s13034-017-0187-y

Elliott, C. M., Stransky, O., Negron, R., Bowlby, M., Lickiss, J., Dutt, D., . . . Barbosa, P. (2013). Institutional barriers to diversity change work in higher education. SAGE

ElObeidy, A. A. (2016). The role of education and training in enhancing labour productivity in arab countries in africa. International Journal of Training and Development, 20(3), 238- 245. doi:10.1111/ijtd.12078

Elsafti, A. M., van Berlaer, G., Al Safadi, M., Debacker, M., Buyl, R., Redwan, A., & Hubloue, I. (2016). Children in the syrian civil war: The familial, educational, and public health impact of ongoing violence. Disaster Medicine and Public Health Preparedness, 10(6), 874-882. doi:10.1017/dmp.2016.165

Elsahati, K., Ochieng, E. G., Zuofa, T., Ruan, X., & Mpofu, B. (2017). The effect of internal and external determinants of electricity projects in libya. International Journal of Energy Sector Management, 11(1), 158-176. doi:10.1108/IJESM-11-2015-0002

Enders, J., & Naidoo, R. (2019). Audit-market intermediaries: Doing institutional work in british research-intensive universities. Studies in Higher Education, 44(7), 1290-1301. https://doi.org/10.1186/s13034-017-018.

Engström, J. (2016). Democratisation and the prevention of violent conflict: lessons learned from Bulgaria and Macedonia. Routledge.

Estelami, H. (2014;). Frontiers of distance learning in business education. Newcastle upon Tyne, UK: Cambridge Scholars Publishing.

Esteve, M., Urbig, D., van Witteloostuijn, A., & Boyne, G. (2016). Prosocial behavior and public service

motivation. Public Administration Review, 76(1), 177-187. https://doi.org/10.1186/s13034-017-0158x.

Ezeoha, A. E., & Ugwu, J. O. (2015). Interactive impact of armed conflicts on foreign direct investments in africa. African Development Review, 27(4), 456-468. doi:10.1111/1467- 8268.12161

Facer, K. (2011). Learning futures: Education, technology, and social change (1st ed.). London;New York;: Routledge.

Fagan, (2009). Human Rights: Confronting Myths and Misunderstandings. Massachusetts: Edward Elgar.

Fereday, J., & Muir-Cochrane, E. (2006). Demonstrating rigor using thematic analysis: A hybrid approach of inductive and deductive coding and theme development. International journal of qualitative methods, 5(1), 80-92. https://doi.org/10.1186/1748-5908-7-43

Fetouri, M. (2016) In Libya, the education system suffers more than most. available at: https://reliefweb.int/report/liberia/unhcr-liberia-factsheet-october-2018 (accessed: 15 November 2016)

Finelli, C. J., Daly, S. R., & Richardson, K. M. (2014). Bridging the Research-to-Practice gap: Designing an institutional change plan using local evidence. Journal of Engineering Education, 103(2), 331-361. https://doi.org/10.1007/s10639-019-10097-z

Foddy, W., & Foddy, W. H. (1994). Constructing questions for interviews and questionnaires: Theory and practice in social research. Cambridge university press.

Foo, M. Y., Kanapathy, K., Zailani, S., & Shaharudin, M. R. (2019). Green purchasing capabilities, practices and institutional pressure. Management of Environmental Quality: An International Journal, 30(5), 1171-1189. https://doi.org/10.1682/JRRD.2014.04.0113

Fountain, S. (1999). Peace education in UNICEF: Working paper series. New York: UNICEF.

Fraenkel, J. R., Wallen, N. E., & Hyun, H. H. (2011). How to design and evaluate research in education. New York: McGraw-Hill Humanities/Social Sciences/Languages.

Francisco Javier Ullan de la Rosa. (2017). The "false" debate between positivism and verstehen in the origins of sociology. Human Affairs, 27(3), 344-362. doi:10.1515/humaff- 2017-0028

French, P. E., & Emerson, M. C. (2014). Assessing the variations in reward preference for local government employees in terms of position, public service motivation, and public sector motivation. Public Performance & Management Review, 37(4), 552-576. https://doi.org/10.1007/s11920-015-0655-0

Frolich, N., (2013). A reinterpretation of institutional transformations in european higher education: Strategising pluralistic organisations in multiplex environments. Higher Education, 65(1), 79-93. https://doi.org/10.1111/j.1541-0072.2009.00345.x

Frølich, N., Trondal, J., Caspersen, J., Caspersen, J., & Reymert, I. (2016). Managing mergers - governancing institutional integration. Tertiary Education and Management, 22(3), 231-248. https://doi.org/10.4103/2045-080X.160989

Fuchs, C. (2017). Critical social theory and sustainable development: The role of class, capitalism and domination in a dialectical analysis of Un/Sustainability. Sustainable Development, 25(5), 443-458. doi:10.1002/sd.1673

Fuchs, C., & Dyer-Witheford, N. (2013). Karl marx @ internet studies. New Media & Society, 15(5), 782-796. doi:10.1177/1461444812462854

Furner, J. (2014). Carl schmitt's 'hegel and marx'. Historical Materialism, 22(3-4), 371-387. doi:10.1163/1569206X-12341339

Gadour, A. (2006). Libyan children's views on the Importance of school factors which contributed to their emotional and behavioural Difficulties. School Psychology International, 27(2), 171-191. https://doi.org/10.1007/s10488-016-0755-0

Galletta, A. (2013). Mastering the semi-structured interview and beyond: From research design to analysis and publication (Vol. 18). NYU press.

Galtung, J. (1990). International development in human perspective. In Conflict: Human needs theory (pp. 301-335). Palgrave Macmillan, London.

Ganev, V. I. (2015). The spell of marx and jeffrey sachs: Social theory and post-communist politics. East European Politics & Societies and Cultures, 29(2), 440-452. doi:10.1177/0888325415569762

Garcia, R., Falkner, K., & Vivian, R. (2018). Systematic literature review: Self-Regulated Learning strategies using e-learning tools for Computer Science. Computers & Education, 123, 150-163. https://doi.org/10.3102/0034654314553127

Garrison, D. R. (2017). E-learning in the 21st century: A community of inquiry framework for research and practice (Third ed.). New York: Routledge.

Gartzke, E., & Gleditsch, K. S. (2006). Identity and conflict: Ties that bind and differences that divide. European Journal of International Relations, 12(1), 53-87. doi:10.1177/1354066106061330

Georgellis, Y., Iossa, E., & Tabvuma, V. (2011). Crowding out intrinsic motivation in the public sector. Journal of Public Administration Research and Theory: J-PART, 21(3), 473- 493.

Global Coalition to Protect Education from Attack (2018) Education Under Attack in Libya's War, New York. available at: https://fanack.com/education/education-under- attack-in-libya/ (accessed: 8 October 2018)

Gibson, D., Ed. D, Aldrich, C., & Prensky, M. (2007). Games and simulations in online learning: Research and development frameworks. Hershey PA: Information Science Pub.

Giouras, T. (2014). The critic and the sophist: The doctoral dissertations of karl marx and wilhelm roscher. Science & Society, 78(2), 153-180. doi:10.1521/siso.2014.78.2.153

Glazer, J. L., Massell, D., & Malone, M. (2019). Charter schools in turnaround: Competing institutional logics in the tennessee achievement school district. Educational Evaluation and Policy Analysis, 41(1), 5-33. https://doi.org/10.1111/cdev.12864

Goicochea, D. P. (2018). La cuestión de la violencia en la crítica de hannah arendt a karl marx. Revista De Estudios Sociales, (63), 20-28. doi:10.7440/res63.2018.02

Goldstein, Joshua S. (2011). Winning the War on War: the decline of armed conflict worldwide. London: Plume Book.

Gomoll, A. S., Hmelo-Silver, C. E., Tolar, E., Šabanović, S., & Francisco, M. (2017). Moving apart and coming together: Discourse, engagement, and deep learning. Journal of Educational Technology & Society, 20(4), 219-232. https://doi.org/10.3102/0002831208316951

Goodfellow, R., & Lea, M. R. (2017). Challenging e-learning in the university: A literacies perspective. 1. publ. Maidenhead [u.a.]: McGraw-Hill u.a.

Guest, G., MacQueen, K. M., & Namey, E. E. (2011). Applied thematic analysis. Sage Publications.

Guri-Rosenblit, S. (2005). 'Distance education 'and 'e-learning': Not the same thing. Higher education, 49(4), 467-493. https://doi.org/10.1007/s11423-016-9508-8

Guthrie, G. (2010). Basic research methods: An entry to social science research. New Delhi: SAGE India.

Haer, R. (2017). The study of child soldiering: Issues and consequences for DDR implementation. Third World Quarterly, 38(2), 450-466. doi:10.1080/01436597.2016.1166946

Haer, R., & Böhmelt, T. (2017). Could rebel child soldiers prolong civil wars? Cooperation and Conflict, 52(3), 332-359. doi:10.1177/0010836716684880

Hage, J. (1980) Theories of organizations: Forms, process and transformation, New York, John Wiley & Sons.

Haider, H. (2014). Conflict sensitivity in education, the private sector and infrastructure development. GSDRC Helpdesk Research Report 1136). Birmingham, UK: GSDRC, University of Birmingham. http://www. gsdrc. org/publications/conflict-sensitivity-in- education-the-private-sector-andinfrastructure-development.

Hameed, S., Badii, A., & Cullen, A. J. (2008, May). Effective e-learning integration with traditional learning in a blended learning environment. In European and Mediterranean Conference on Information Systems (pp. 25-26). https://doi.org/10.1037/a0029356

Hammond, M., & Wellington, J. J. (2013). Research methods: The key concepts. London: Routledge.

Hanson, B. (2015). Objectivities: Constructivist roots of positivism. Quality & Quantity, 49(2), 857-865. doi:10.1007/s11135-014-0027-6

Harasim, L., (2000) Shift happens: Online education as a new paradigm in learning. The Internet and higher education, 3(1-2), 41-61. https://doi.org/10.1108/14684521111113597

Harber, C., & Sakade, N. (2009). Schooling for violence and peace: how does peace education differ from 'normal' schooling? Journal of Peace Education, 6(2), 171-187. https://doi.org/10.1111/bjet.12692

Harper, D., & Thompson, A. R. (2012). Qualitative research methods in mental health and psychotherapy: A guide for students and practitioners. Oxford: Wiley-Blackwell.

Harper, S. R. (2012). Race without racism: How higher education researchers minimize racist institutional norms. The Review of Higher Education, 36(1), 9-29. d https://doi.org/10.3102/0002831218792841

Harris, M. S., & Ellis, M. K. (2019). Measuring changes in institutional diversity: The US context. Higher Education,

Haythornthwaite, C. A., & Andrews, R. (2011). E-learning theory and practice. London; Los Angeles, [Calif.];: SAGE.

Hedrick, T. (2014). Reification in and through law: Elements of a theory in marx, lukács, and honneth. European Journal of Political Theory, 13(2), 178-198. doi:10.1177/1474885113483286

Hefnawi, A, Ministry of Education, United Arab Emirates (2021). Education during a pendemic: Lessons from the United Arab Emirates, British Educational Research Association (BERA).

Herriot, P. (2014). Religious fundamentalism and social identity. Routledge.

Hesse-Biber, S. N., (2010). Mixed methods research: Merging theory with practice. New York: Guilford Press.

Hewett, B. L., DePew, K. E., WAC Clearinghouse, & Open Textbook Library. (2015). Foundational practices of online writing instruction. Anderson: Parlor Press and the WAC Clearinghouse.

Hibberd, F. J. (2001). Gergen's social constructionism, logical positivism and the continuity of error: Part 2: Meaning-as-use. Theory & Psychology, 11(3), 323-346. doi:10.1177/0959354301113003

Hibberd, F. J. (2010). Situational realism, critical realism, causation and the charge of positivism. History of the Human Sciences, 23(4), 37-51. doi:10.1177/0952695110373423

Hills, & Howard. (2017). Individual preferences in e-learning Routledge Ltd. doi:10.4324/9781315588391

Hintjens, H., & Žarkov, D. (2014). Conflict, peace, security and development: theories and methodologies. In Conflict, Peace, Security and Development (pp. 15-34). Routledge.

Hoffman, S. J. (2011). Teaching the humanities online: A practical guide to the virtual classroom: A practical guide to the virtual classroom. London: Routledge Ltd. doi:10.4324/9781315700489

Hojbotă, A. M., Butnaru, S., Rotaru, C., & Tița, S. (2014). Facing conflicts and violence in schools-a proposal for a new occupation: the mediation counsellor. Procedia-Social and Behavioral Sciences, 142, 396-402. https://doi.org/10.3102/0002831218792841

Holmberg, D., & Hallonsten, O. (2015). Policy reform and academic drift: Research mission and institutional legitimacy in the development of the swedish higher education system 1977 - 2012. European Journal of Higher Education, 5(2), 181-196. doi:10.1080/21568235.2014.997263.

Holmes, J., & Hazen, K. (2013). Research methods in sociolinguistics: A practical guide. Somerset: Wiley.

Holtz, P., & Monnerjahn, P. (2017). Falsificationism is not just 'potential' falsifiability, but requires 'actual' falsification: Social psychology, critical rationalism, and progress in science. Journal for the Theory of Social Behaviour, 47(3), 348-362. doi:10.1111/jtsb.12134

Hongcheng, S., & Minhui, Q. (2010). The other in education: The distance between school education

and local culture. Chinese Education & Society, 43(5), 47-61. doi:10.2753/CED1061-1932430503

Horowitz, M. (2014). On the supposed break in marx. Science & Society, 78(4), 454-483. doi:10.1521/siso.2014.78.4.454

Howells, J. R. L., Karata -Ozkan, M., Yavuz, C., & Atiq, M. (2014). University management and organisational change: A dynamic institutional perspective. Cambridge Journal of Regions, Economy and Society, 7(2), 251-270.

Howitt, D., & Cramer, D. (2017). Research methods in psychology (Fifth ed.). Harlow: Pearson Education.

Hsu, C. C., & Sandford, B. A. (2010). Delphi technique. Encyclopedia of research design, 344-347.https://doi.org/10.1177/0735633118769433

Hsu, Y., & Lin, S. (2017). Prompting students to make socioscientific decisions: Embedding metacognitive guidance in an e-learning environment. International Journal of Science Education, 39(7), 964-979. doi:10.1080/09500693.2017.1312036

Huang, S., Ye, G., Zhou, J., & Jin, T. (2017). Institutional contexts, institutional capability and accelerated internationalization of entrepreneurial firms from emerging economies. Nankai Business Review International, 8(2), 231-262. https://doi.org/10.1002/pam.21915

Huang, Y., Liang, T., Su, Y., & Chen, N. (2012). Empowering personalized learning with an interactive e-book learning system for elementary school students. Educational Technology Research and Development, 60(4), 703-722. doi:10.1007/s11423-012-9237-6

Huang, Y., Liang, T., Su, Y., & Chen, N. (2012). Empowering personalized learning with an interactive e-book learning system for elementary school students. Educational Technology Research and Development, 60(4), 703-722. doi:10.1007/s11423-012-9237-6

Hubbard, R., (2013). The really useful eLearning instruction manual: Your toolkit for putting elearning into practice. GB: Pfeiffer.

Huber, G. P. (1996). Organizational learning: The contributing processes and the literatures.

Hughes, E. (2016). Education in prison: Studying through distance learning. GB: Routledge Ltd. doi:10.4324/9781315578859

Hughes, M., & Murphy, M. (2014). Evaluation of a pilot national online asthma E-learning program for secondary school students. Issues in Comprehensive Pediatric Nursing, 37(2), 136-146. doi:10.3109/01460862.2014.902405

Hwang, G., & Lai, C. (2017). Facilitating and bridging out-of-class and in-class learning: An interactive E-book-based flipped learning approach for math courses. Journal of Educational Technology & Society, 20(1), 184-197. https://doi.org/10.1037/a0038454

Hwang, G., Lai, C., Liang, J., Chu, H., & Tsai, C. (2018). A long-term experiment to investigate the relationships between high school students' perceptions of mobile learning and peer interaction and higher-order thinking tendencies. Educational Technology Research and Development, 66(1), 75-93. doi:10.1007/s11423-017-9540-3

Hweissa, N. A., & Su, T. T. (2018). Awareness of cervical cancer and socio-demographic variations among women in libya: An exploratory study in az-zawiya city. European Journal of Cancer

Care, 27(1), e12750. doi:10.1111/ecc.12750

Ibrahim, Q. A. (2017). Glocalization and international social work education: A comparative study of palestine, jordan, saudi arabia, oman, yemen, egypt, libya, and morocco. International Social Work, 60(6), 1399-1417. doi:10.1177/0020872816651697

Ichino, A., & Winter-Ebmer, R. (2004). The long-run educational cost of World War II. Journal of Labor Economics, 22, 57–87. doi:10.1086/380403

Ichino, A., & Winter-Ebmer, R. (2004). The long-run educational cost of World War II. Journal of Labor Economics, 22, 57–87.doi:10.1086/380403

Ignatieff, Michael. (1998). The Warrior's Honor: ethnic war and the modern conscience. London: Vintage.

Iles, I. A., Egnoto, M. J., Fisher Liu, B., Ackerman, G., Roberts, H., & Smith, D. (2017). Understanding the adoption process of national security technology: An integration of diffusion of innovations and volitional behavior theories: Understanding the adoption process of national security technology. Risk Analysis, 37(11), 2246-2259.

INEE. (2012). Protecting education in countries affected by conflict: Resource pack. New York: Author.

Insurgency (Working Paper 143). Retrieved from Households in Conflict Network website: http://www.hicn.org/wordpress/wp-content/uploads/2012/06/HiCN-WP-143.pdf

Inter-Agency Network for Education in Emergencies (INEE). (2010). Strategic research agenda for education in emergencies: Chronic crises, early recovery & fragile contexts. New York: Author.

Iofrida, N., De Luca, A. I., Strano, A., & Gulisano, G. (2018). Can social research paradigms justify the diversity of approaches to social life cycle assessment? The International Journal of Life Cycle Assessment, 23(3), 464-480. doi:10.1007/s11367-016- 1206-6

Iraq Household Socio-Economic Survey (2007). Retrieved from The World Bank website: http://microdata.worldbank.org/index.php/catalog/69

Ishimaru, A. M., & Takahashi, S. (2017). Disrupting racialized institutional scripts: Toward parent-teacher transformative agency for educational justice. Peabody Journal of Education, 92(3), 343-362. doi:10.1080/0161956X.2017.1324660

Islam, M. S., Kunifuji, S., Miura, M., & Hayama, T. (2014). How library and information science academic administrators perceive e-learning in LIS schools: A qualitative analysis. IFLA Journal, 40(4), 254-266. doi:10.1177/0340035214541401

Jacobides, M. G., & Winter, S. G. (2012). Capabilities: Structure, agency, and evolution. Organization Science, 23(5), 1365-1381. https://doi.org/10.1037/a0038454 https://doi.org/10.1111/j.1467-8535.2009.00997.x

JACOBSEN, C. B., HVITVED, J., & ANDERSEN, L. B. (2014). command and
motivation: How the perception of external interventions relates to intrinsic motivation and public service motivation. Public Administration, 92(4), 790-806. https://doi.org/10.1108/ET-12-2018-0254

Jaggars, S.S. and Bailey, T. 2010 Effectiveness of Fully Online Courses for College Students: Response to a Department of Education Meta-Analysis. Community College Research Center, Columbia

University.

James, D. (2014). The concept of practical necessity from thucydides to marx. Theoria: A Journal of Social and Political Theory, 61(138), 1-17. doi:10.3167/th.2014.6113801

Jan, P. T., Lu, H. P., & Chou, T. C. (2012). The adoption of e-learning: an institutional theory perspective. Turkish Online Journal of Educational Technology-TOJET, 11(3), 326- 343. https://doi.org/10.1108/ET-12-2018-0254

Jando, E., Hidayanto, A. N., Prabowo, H., & Warnars, H. L. H. S. (2017, November). Personalized E-learning Model: A systematic literature review. In Information Management and Technology (ICIMTech), 2017 International Conference on (pp. 238- 243). IEEE.

Jaques, D., & Salmon, G. (2017). Learning in groups: A handbook for face-to-face and online environments (4th ed.). London: Routledge.

Javadi, M., & Zarea, K. (2016). Understanding thematic analysis and its pitfall. Journal of client care, 1(1), 33-39. https://doi.org/10.1080/10494820.2015.1122635

Jensen, K. (2015). Reimagining process: Online writing archives and the future of writing studies. Carbondale: Southern Illinois University Press.

Jeong, H. W. (2017). Peace and conflict studies: An introduction. Routledge.

Jepperson, R. L. (1991). Institutions, institutional effects, and institutionalism. In P. J. DiMaggio & W. W. Powell (Eds.), The new institutionalism in organizational analysis(pp. 143-162). Chicago: University of Chicago Press.

Joffe, H., & Yardley, L. (2004). Content and thematic analysis. Research methods for clinical and health psychology, 56, 68. https://doi.org/10.1016/j.jclepro.2014.06.056

Jones, A., & Naylor, R. (2014). The Quantitative Impact of Armed Conflict on Education: Counting the Human and Financial Cost. CfBT Education Trust.

Jones, I., & Gratton, C. (2015). Research methods for sports studies (Third ed.). London: Routledge.

Jones, P., Skinner, H., & Mccracken, M. (2014). E-learning globalization: The impact of E-learning - what difference has it made?. GB: Emerald Group Publishing Ltd.

Jones, S., & Forshaw, M. (2012). Research methods in psychology. Harlow: Prentice Hall.

Jonna, R. J., & Foster, J. B. (2016). Marx's theory of working-class precariousness: Its relevance today. Monthly Review, 67(11), 1. doi:10.14452/MR-067-11-2016-04_1

Jung, I. and Rha, I. (2000). Effectiveness and cost-effectiveness of online education: A review of the literature. Educational Technology, 40(4), 57-60. https://doi.org/10.1002/tea.20314

Jung, I., & Gunawardena, C. N. (2014;2015;). Culture and online learning: Global perspectives and research. Sterling, Virg: Stylus Pub. Llc.

Justino, P. (2010). How Does Violent Conflict Impact on Individual Educational Outcomes? The Evidence So Far. background paper for the Education For All Global Monitoring Report.

Justino, P. (2011). Violent conflict and human capital accumulation (Working Paper No. 54).

Retrieved from MICROCON website: http://www.microconflict.eu/publications/RWP54_PJ.pdf

Justino, P. (2016). Supply and demand restrictions to education in conflict-affected countries: New research and future agendas. International journal of educational development, 47, 76-85. https://doi.org/10.1177/0956797612440101

Kahu, E. R. (2013). Framing student engagement in higher education. Studies in higher education, 38(5), 758-773. https://doi.org/10.1177/2042753020946286

Kajornboon, A. B. (2005). Using interviews as research instruments. E-journal for Research Teachers, 2(1), 1-9. https://doi.org/10.1080/09500693.2020.1727586

Kangal, K. (2016). The karl marx problem in contemporary new media economy: A critique of christian fuchs' account. Television & New Media, 17(5), 416-428. doi:10.1177/1527476415622266

Kanwal, F., & Rehman, M. (2014). E-learning Adoption Model: A case study of Pakistan. Life Science Journal, 11(4s), 78-86. https://doi.org/10.1080/13504622.2019.1696948

Katou, A. A., & Budhwar, P. S. (2010). Causal relationship between HRM policies and organisational performance: Evidence from the greek manufacturing sector. European Management Journal, 28(1), 25-39. https://doi.org/10.1017/S0954579416001139

Katz, D., & Kahn, R. (1966). The social psychology of organizations. New York: John Wiley

Keady, J., Hyden, L., Johnson, A., & Swarbrick, C. (2017). Social research methods in dementia studies: Inclusion and innovation. London: Routledge.

Kearns, S. K. (2016). e-learning in aviation Routledge.

Kearns, S. K. (2016;2010;2012;). e-learning in aviation. GB: Routledge. doi:10.4324/9781315579009

Kelly, P., & Odama, S. (2011). Democratic education only for some: Secondary schooling in Northern Uganda. International Journal of Education, 3(1), 1-21. https://doi.org/10.1080/00131881.2015.1117350

Kenney, D. R., Dumont, R., & Kenney, G. S., 2005, Mission and place: Strengthening learning and community through campus design. Westport, CT: Greenwood Publishing Group.

Kenny, R., Zhang, Z., Schwier, R., & Campbell, K. (2005). A review of what instructional designers do: Questions answered and questions not asked. Canadian Journal of Learning and Technology/La revue canadienne de l'apprentissage et de la technologie, 31(1). https://doi.org/10.1111/cdev.13348

Kerimbayev, N., Akramova, A., & Suleimenova, J. (2016). E-learning for ungraded schools of kazakhstan: Experience, implementation, and innovation. Education and Information Technologies, 21(2), 443-451. doi:10.1007/s10639-014-9331-y

Khalil, D., & Halis, M. (2017). Challenges Facing the Quality of Education in the Libyan Higher Technical Colleges. Imperial Journal of Interdisciplinary Research, 3(10), 112-118. https://doi.org/10.1177/1461444819884373

Khan, A. A., & Hyndman, J. (2015). Navigating civil war through youth migration, education, and family separation. Refuge, 31(2), 75. https://doi.org/10.1080/13603124.2017.1318958

Khan, B. H. (2001). A framework for web-based learning. Web-based training, 75-98.

Khan, B. H. 2001c. Webbased training: An introduction. In B. H. Khan (Ed.), Webbased training. (pp. 5-12). Englewood Cliffs, NJ: Educational Technology Publications

Khan, B. Z. (2016). The impact of war on resource allocation: "creative destruction," patenting, and the american civil war. The Journal of Interdisciplinary History, 46(3), 315. https://doi.org/10.1080/13504622.2013.812722

Khandwalla, P. (1970) Environment and the organization structure of firms, McGill University, Montreal, Faculty of Management.

Khribi, M. K., Jemni, M., & Nasraoui, O. (2009). Automatic recommendations for E- learning personalization based on web usage mining techniques and information retrieval. Journal of Educational Technology & Society, 12(4), 30-42. https://doi.org/10.1093/wbro/lkw004

Kim, J. (2018). The contrary effects of intrinsic and extrinsic motivations on burnout and turnover intention in the public sector. International Journal of Manpower, 39(3), 486-500. https://doi.org/10.1080/02701367.2016.1263381

Kim, K. Y., & Patel, P. C. (2017). Employee ownership and firm performance: A variance decomposition analysis of european firms. Journal of Business Research, 70, 248-254.

Kim, S., & Vandenabeele, W. (2010). A strategy for building public service motivation research internationally. Public Administration Review, 70(5), 701-709. doi:10.1111/j.1540-

Kim, S., Vandenabeele, W., Wright, B. E., Andersen, L. B., Cerase, F. P., Christensen, R. K., . . . Vivo, P. D. (2013). Investigating the structure and meaning of public service motivation across populations: Developing an international instrument and addressing issues of measurement invariance. Journal of Public Administration Research and Theory: J-PART, 23(1), 79-102.

King Jr, M. L. (2017). The role of higher education institutions in developing intercultural competence in peace-building in the aftermath of violent conflict. Intercultural Competence in Higher Education: International Approaches, Assessment and Application.

King, E., & Alperstein, N. (2015). Best practices in online program development: Teaching and learning in higher education. New York: Routledge.

Kjeldsen, A. M., & Jacobsen, C. B. (2013). Public service motivation and employment sector: Attraction or socialization? Journal of Public Administration Research and Theory: J-PART, 23(4), 899-926.https://doi.org/10.1080/02701367.2016.258945.

Kloumann, I. M., Danforth, C. M., Harris, K. D., Bliss, C. A., & Dodds, P. S. (2012;2011;). Positivity of the english language. PloS One, 7(1), e29484. doi: 10.1371/journal.pone.0029484

Koh, A. H. Q., Jia, L., & Hirt, E. R. (2017). Where do desires come from? positivity offset and negativity bias predict implicit attitude toward temptations. Motivation and Emotion, 41(4), 431-442. doi:10.1007/s11031-017-9617-7

Kondra, A. Z., & Hinings, C. R. (1998). Organizational diversity and change in institution theory. Organization Studies, 19(5), 743-767

Kong, S. (2018). Parents' perceptions of e-learning in school education: Implications for the partnership

between schools and parents. Technology, Pedagogy and Education, 27(1), 15-31. doi:10.1080/1475939X.2017.1317659

Kong, S. C., Chan, T., Griffin, P., Hoppe, U., Huang, R., Kinshuk, . . . Fakulteten för teknik (FTK). (2014). E-learning in school education in the coming 10 years for developing 21st century skills: Critical research issues and policy implications. Journal of Educational Technology & Society, 17(1), 70-78. https://doi.org/10.1080/02701367.2016.12685698.

Kong, S. C., Chan, T., Griffin, P., Hoppe, U., Huang, R., Kinshuk, . . . Fakulteten för teknik (FTK). (2014). E-learning in school education in the coming 10 years for developing 21st century skills: Critical research issues and policy implications. Journal of Educational Technology & Society, 17(1), 70-78.

Kong, S., Looi, C., Chan, T., & Huang, R. (2017). Teacher development in singapore, hong kong, taiwan, and beijing for e-learning in school education. Journal of Computers in Education, 4(1), 5-25. doi:10.1007/s40692-016-0062-5

Kosturko, L., Sabourin, J., McQuiggan, J., & McQuiggan, S. (2015). Mobile learning: A handbook for developers, educators, and learners (1st ed.) John Wiley & Sons.

Koukiadaki, A. (2010). The establishment and operation of information and consultation of employees' arrangements in a capability-based framework. Economic and Industrial Democracy, 31(3), 365-388.

Krammer, S. M. S., Strange, R., & Lashitew, A. (2018). The export performance of emerging economy firms: The influence of firm capabilities and institutional environments. International Business Review, 27(1), 218-230. https://doi.org/10.1037/dev0000626

Krätke, M. R. (2018). Marx and world history. International Review of Social History, 63(1), 91-125. doi:10.1017/S0020859017000657

KUO, F., & LIU, H. (2017). Upgrading school efficiencies and learning interests through innovative teaching of digital mobile e-learning. Journal of Social and Administrative Sciences, 4(4), 382. doi:10.1453/jsas.v4i4.1508

Kurtmollaiev, S., Fjuk, A., Pedersen, P. E., Clatworthy, S., & Kvale, K. (2018). Organizational transformation through service design: The institutional logics perspective. Journal of Service Research, 21(1), 59-74.https://doi.org/10.1037/dev000455825898

Laadem, M. (2017). E-learning integration in higher education: Focus on Moroccan departments of English. PUPIL: International journal of teaching, education and learning, 1(2), 115-133. https://dx.doi.org/10.20319/pijtel.2017.12.115133

Lafferty, G. (2016). From grand narrative to pluralist alternatives: New perspectives on marx and marxism. Australian Journal of Political Science, 51(3), 583-597. doi:10.1080/10361146.2016.1226252

Lai, B. and Thyne, C. (2007). The Effect of Civil War on Education, 1980----97. Journal of Peace Research, 44(3), 277----292. doi: 10.1177/0022343307076631.

Lancaster, G. (2007). Research methods in management Routledge Ltd. doi:10.4324/9780080494289

Landau, C., Karna, A., Richter, A., & Uhlenbruck, K. (2016). Institutional leverage capability: Creating and using institutional advantages for internationalization. Global Strategy Journal, 6(1), 50-

68. https://doi.org/10.1037/vu25566655

Leavitt, H. J., & Lipman-Blumen, J. (1995, July-August). Hot groups. Harvard Business Review, 73(4), 109-116. https://doi.org/10.1007/s10639-020-10325-x

Lehman, R. M., & Conceiõ̂ -Runlee, S. (2010). Creating a sense of presence in online teaching: How to "be there" for distance learners (1st ed.). San Francisco, Calif;Chichester;: Jossey-Bass.

Lemke, Douglas (October 2008). "Power Politics and Wars without States". American Journal of Political Science. 52 (Midwest Political Science Association): 774. Retrieved 1 October 2018.

León, G. (2012). Civil conflict and human capital accumulation: The long-term effects of political violence in perú. The Journal of Human Resources, 47(4), 991-1022. doi:10.1353/jhr.2012.0036

Levitt, B., &. March, J. G. (1996). Organizational learning. In M. D. Cohen & L. S. Sproull (Eds.), Organizational learning (pp. 515-540). Thousand Oaks, CA: Sage.

Levitt, B., &. March, J. G. (1996). Organizational learning. In M. D. Cohen & L. S. Sproull (Eds.), Organizational learning (pp. 515-540). Thousand Oaks, CA: Sage.

Lewin, K. (1951). Field theory in social science. New York: Harper and Row.

Li, Y., Dong, M., & Huang, R. (2011). Designing collaborative E-learning environments based upon semantic wiki: From design models to application scenarios. Journal of Educational Technology & Society, 14(4), 49-63. https://doi.org/10.1177/0022487116654005

Liaw, S. S., & Huang, H. M. (2013). Perceived satisfaction, perceived usefulness and interactive learning environments as predictors to self-regulation in e-learning environments. Computers & Education, 60(1), 14-24. https://doi.org/10.1177/1741143217739363

Liaw, S. S., Huang, H. M., & Chen, G. D. (2007). Surveying instructor and learner attitudes toward e-learning. Computers & Education, 49(4), 1066-1080. https://doi.org/10.1080/00313831.2017.1336478

Lin, H. (2007). Effects of extrinsic and intrinsic motivation on employee knowledge sharing intentions. Journal of Information Science, 33(2), 135-149. https://doi.org/10.30935/cedtech/7630

Lin, H., & Miettinen, R. (2019). Developing policy instruments: The transformation of an educational policy intervention. Journal of Educational Change, 20(1), 57-77. https://doi.org/10.3945/jn.112.171280

LING, I., CHUANG, S., & HSIAO, C. (2012). The effects of Self-Diagnostic information on risk perception of internet addiction disorder: Self-Positivity bias and online social support. Journal of Applied Social Psychology, 42(9), 2111-2136. doi:10.1111/j.1559- 1816.2012.00933.x

Littlejohn, A., & Pegler, C. (2007). Preparing for blended e-learning. London: Routledge.

Littleton, K., & Light, P. (2012). Learning with computers: Analysing productive interaction Routledge.

Lodico, M. G., Spaulding, D. T., & Voegtle, K. H. (2010). Methods in educational research: From theory to practice (2nd ed.). Hoboken: Wiley.

LOOPS (2016) Public Education in Libya: Problems, Challenges and Solutions available at:

http://loopsresearch.org/media/images/photox68nwocvmb.pdf (accessed: 30 August 2016)

Lund, M. S. (1996). Preventing violent conflicts: A strategy for preventive diplomacy (pp. 37-44). Washington, DC: United States Institute of Peace Press.

Lytras, M., & Pouloudi, N. (2001). Expanding e-learning effectiveness. The shift from content orientation to knowledge management utilization. In EdMedia: World Conference on Educational Media and Technology (pp. 1184-1190). Association for the Advancement of Computing in Education (AACE).

Lytras, M.D. & Pouloudi, A.E. (2001), ''E-learning: just a waste of time'', in Strong, D., Straub, D. And DeGross, J. (Eds), Proceedings of the 7th Americas Conference on Information Systems (AMCIS), Association for Information Systems, Boston.

Macfadyen, L. P., & Dawson, S. (2012). Numbers are not enough. why e-learning analytics failed to inform an institutional strategic plan. Journal of Educational Technology & Society, 15(3), 149-163. https://doi.org/10.3945/jn.112152897856

Macfadyen, L. P., & Dawson, S. (2012). Numbers are not enough. why e-learning analytics failed to inform an institutional strategic plan. Journal of Educational Technology & Society, 15(3), 149-1. https://doi.org/10.1108/IJILT-02-2016-0008

Maguire, M., & Delahunt, B. (2017). Doing a thematic analysis: A practical, step-by-step guide for learning and teaching scholars. AISHE-J: The All Ireland Journal of Teaching and Learning in Higher Education, 9(3), 3351-3364. https://doi.org/10.1111/desc.12808

Majid, M. A. A., Othman, M., Mohamad, S. F., Lim, S. A. H., & Yusof, A. (2017). Piloting for interviews in qualitative research: Operationalization and lessons learnt. International Journal of Academic Research in Business and Social Sciences, 7(4), 1073-1080.

Major, C. H. (2015). Teaching online: A guide to theory, research, and practice. Baltimore: The Johns Hopkins University Press.

MAJUMDAR, S. K. (2014). regulation and job creation: An analysis of institutional change and its consequences. Annals of Public and Cooperative Economics, 85(2), 305-325.

Malyal, M., & Sharma, R. (2015). e-learning: In school education issues & challenges and advantages: A review. International Journal of Advanced Research in Computer Science, 6(5)

Marceau, K., Knopik, V. S., Neiderhiser, J. M., Lichtenstein, P., Spotts, E. L., Ganiban, J. M., & Reiss, D. (2016). Adolescent age moderates genetic and environmental influences on parent-adolescent positivity and negativity: Implications for genotype-environment correlation. Development and Psychopathology, 28(1), 149-166. doi:10.1017/S0954579415000358

March, J. G. (1999). The pursuit of organizational intelligence. Oxford, UK: Blackwell. March, J. G., & Olsen, J. P. (1996). Institutional perspectives on political institutions. Governance: An International Journal of Policy and Administration, 9(3), 247-264

March, J. G. (1999). The pursuit of organizational intelligence. Oxford, UK: Blackwell.

March, J. G., & Olsen, J. P. (1996). Institutional perspectives on political institutions. Governance: An International Journal of Policy and Administration, 9(3), 247-

Margolis, E., & Pauwels, L. (2011). The SAGE handbook of visual research methods. London; Los

Angeles, Calif; SAGE.

Martignani, L. (2016). The place of construction in sociological realism. Journal for the Theory of Social Behaviour, 46(4), 517-536. doi:10.1111/jtsb.12108

Martin, W. E., & Bridgmon, K. D. (2012). Quantitative and statistical research methods: From hypothesis to results (1. Aufl.; First; ed.). Hoboken: Wiley.

Martín-Monje, E., & Bárcena, E. (2014;2015;). Language MOOCs: Providing learning, transcending boundaries. Berlin: De Gruyter Open. doi:10.2478/9783110420067

März, V., Kelchtermans, G., & Vermeir, K. (2017). Artifacts as authoritative actors in educational reform: Routines, institutional pressures, and legitimacy in student data systems. Journal of Educational Change, 18(4), 439-464. . https://doi.org/10.1111/desc.16989665996

Masrom, M. (2007). Technology acceptance model and e-learning. Technology, 21(24), 1- 10. https://doi.org/10.1111/bjet.1289656696

Masschelein, J., & Simons, M. (2015). Education in times of fast learning: The future of the school. Ethics and Education, 10(1), 84-95. https://doi.org/10.1111/j.1467-8535.2012.256456.145

Matsumoto, D. R., & Vijver, Fons J. R. van de. (2011). Cross-cultural research methods in psychology. New York: Cambridge University Press.

Matthews, B., & Ross, L. (2010). Research methods: A practical guide for the social sciences. Harlow: Pearson Longman.

Maxey, D., & Kezar, A. (2015). Revealing opportunities and obstacles for changing non- tenure-track faculty practices: An examination of stakeholders' awareness of institutional contradictions. The Journal of Higher Education, 86(4), 564-594.

Maxwell, S., & Mucklow, J. (2012). e-learning initiatives to support prescribing. British Journal of Clinical Pharmacology, 74(4), 621-631. doi:10.1111/j.1365-2125.2012.04300.x

May, T. (2011). Social research: Issues, methods and process (4th ed.). Maidenhead: McGraw-Hill/Open University Press.

McCall, L. (2005). The complexity of intersectionality. Signs, 30(3), 1771-1800. doi:10.1086/426800

McLeod, S.A. (2008). Social identity theory. Retrieved from https://www.simplypsychology.org/social-identity-theory.html

Means, B., Toyama, Y., Murphy, R. and Baki, M. 2013 The effectiveness of online and blended learning: A meta-analysis of the empirical literature. Teachers College Record, 115(3), 1-47.

Meighan, R., & Siraj-Blatchford, I. (2003). A sociology of educating (4th edition). London: Continuum.

Meloni, M. (2014). Biology without biologism: Social theory in a postgenomic age. Sociology, 48(4), 731-746. doi:10.1177/0038038513501944

Memos, C. (2013). Axelos, castoriadis, papaioannou and marx: Towards an anti-critique. Philosophy & Social Criticism, 39(10), 1029-1047. doi:10.1177/0191453713507013

Merriam, S. B., & Grenier, R. S. (Eds.). (2019). Qualitative research in practice: Examples for discussion

and analysis. Jossey-Bass.

Merriam, S. B., & Tisdell, E. J. (2016). Qualitative research: A guide to design and implementation (Fourth ed.). San Francisco, CA: Jossey-Bass.

Merrouche, O. (2006). The human capital cost of landmine contamination in Cambodia: Households in Conflict Network.

Mesfin, G., Ghinea, G., Grønli, T., & Hwang, W. (2018). Enhanced agility of E-learning adoption in high schools. Journal of Educational Technology & Society, 21(4), 157-170. https://doi.org/10.1111/j.1467-8535.2012.01351.x

Messerschmidt, C. M., & Hinz, O. (2013). Explaining the adoption of grid computing: An integrated institutional theory and organizational capability approach. Journal of Strategic Information Systems, 22(2), 137-156. https://doi.org/10.1080/00131911.2011.625111

Meyer, In J. W. & W. R. Scott (1995) (Eds.), Organizational environments: Ritual and rationality (pp. 45-67). Thousand Oaks, CA: Sage.

Meyer, J. W. (1992). Centralization of funding and control in educational governance. In
J. W. Meyer& W. R. Scott (Eds.), Organizational environments: Ritual and rationality (pp. 179-197). Thousand Oaks, CA: Sage.

Meyer, J. W., & Rowan, B. (1977). Institutionalized organizations: Formal structure as myth and ceremony. American Journal of Sociology, 83, 340-363. 660 Educational Administration Quarterly

Meyer, J. W., Scott, W. R., & Deal, T. E. (1992). Institutional and technical sources of organizational structure: Explaining the structure of educational organizations.

MEYER, R. E., EGGER-PEITLER, I., HÖLLERER, M. A., & HAMMERSCHMID, G.
(2014). of bureaucrats and passionate public managers: Institutional logics, executive identities, and public service motivation. Public Administration, 92(4), 861-885. https://doi.org/10.1111/bjep.12380

Miao, Q., Newman, A., Schwarz, G., & Cooper, B. (2018). How leadership and public service motivation enhance innovative behavior. Public Administration Review, 78(1), 71- 81. https://doi.org/10.1080/10508406.2016.1147448

Miles, S., & Singal, N. (2010). The Education for All and inclusive education debate: conflict, contradiction or opportunity? International Journal of Inclusive Education, 14(1), 1–15.

Milton, S. (2013) The neglected pillar of recovery: A study of higher education in post-war Iraq and Libya. Doctoral dissertation: University of York.

Min, S., So, K. K. F., & Jeong, M. (2019). Consumer adoption of the uber mobile application: Insights from diffusion of innovation theory and technology acceptance model. Journal of Travel & Tourism Marketing, 36(7), 770-783. https://doi.org/10.1257/jep.31.4.185

Mitchell, C. R. (1981). Peacemaking and the Consultant's Role. Dartmouth Publishing Company.

Mohsen Masaud A Maatugh. (2016). Civil aviation & metrology education & research for sustainable development in libya. Journal of Economic Development, Management, I T, Finance, and

Marketing, 8(1), 1. https://doi.org/10.3102/00346543145462684

Mohseni, A. (2014). Educational technology: The tablet computer as a promising technology in higher education(Doctoral dissertation, University of Alberta).

Moller, L., & Huett, J. B. (2012). The next generation of distance education: Unconstrained learning. New York: Springer.

Molteno, M., Ogadhoh, K., Cain, E., & Crumpton, B. (2000). Towards responsive schools: Supporting better schooling for disadvantaged children. Education Research Paper No. 38. London: DFID.

Moreno, R., & Mayer, R. (2007). Interactive multimodal learning environments: Special issue on interactive learning environments: Contemporary issues and trends. Educational Psychology Review, 19(3), 309-326. doi:10.1007/s10648-007-9047-2

Morissette, J. J. (2013). Marxferatu: The vampire metaphor as a tool for teaching marx's critique of capitalism. PS: Political Science and Politics, 46(3), 637-642. doi:10.1017/S1049096513000607

Morse, J. M., Barrett, M., Mayan, M., Olson, K., & Spiers, J. (2002). Verification strategies for establishing reliability and validity in qualitative research. International journal of qualitative methods, 1(2), 13-22. https://doi.org/10.3102/001652005689475

Mouri, K., Uosaki, N., & Ogata, H. (2018). Learning analytics for supporting seamless language learning using E-book with ubiquitous learning system. Journal of Educational Technology & Society, 21(2), 150-163.

Moynihan, D. P., & Pandey, S. K. (2007). The role of organizations in fostering public service motivation. Public Administration Review, 67(1), 40-53. https://doi.org/10.1111/cdev.145252156

Mupinga, D. M. (2005). Distance education in high schools: Benefits, challenges, and suggestions. The Clearing House: A Journal of Educational Strategies, Issues and Ideas, 78(3), 105-109.

Nam, C. W., & Schumacher, J. (2014). dynamics and time frame of post war recovery required for compensating civil war economic losses. CESifo Forum, 15(3), 79.

National Research Center. (1998). Third international mathematics and science study: United States (Rep. No. 8). East Lansing, MI: National Science Foundation. Washington, DC: U.S. Department of Education.

Neesham, C., & Dibben, M. (2016). Class conflict and social order in smith and marx: The relevance of social philosophy to business management. Philosophy of Management, 15(2), 121-133. doi:10.1007/s40926-016-0038-6

Newby, P. (2014). Research methods for education (Second ed.). London: Routledge.

Nguyen, T., Boland, W. C., & Gasman, M. (2019). Historically black colleges and universities, STEM education, and the pursuit for legitimacy? British Journal of Sociology of Education, 40(8), 1055-1071. https://doi.org/10.1111/cdev.12864

Nicolai, S., and Triplehorn, C. (2003). The role of education in protecting children in conflict. Network Paper: Humanitarian Practice Network (HPN), 42, 1----36. https://doi.org/10.3102/000283143235648

Nielsen, P., Nielsen, R. N., Bamberger, S. G., Stamhus, J., Fonager, K., Larsen, A., . . . Omland, Ø. (2012). Capabilities for innovation: The nordic model and employee participation. Nordic Journal of Working Life Studies, 2(4), 85.https://doi.org/10.1007/s11423-014525-45656-15-15522

Nikolova, N., Georgiev, A., & Gachev, G. (2008). The challenges in the secondary school e-learning process. In Proceedings of the 7th European Conference on e-learning ECEL (Vol. 2, pp. 205-213).

Nwana, S. (2012). Challenges in the applications of e-learning by secondary school teachers in Anambra State, Nigeria. African Journal of Teacher Education, 2(1).

O'Leary, C. (2019). Public service motivation: A rationalist critique. Public Personnel Management, 48(1), 82-96.

Obeidi, A. S., & Obeidi, A. (2013). Political culture in Libya. Routledge.

Obura, A. (2003). Never again: Educational reconstruction in Rwanda. Paris: IIEP.

Oliveira, M., Bitencourt, C., Teixeira, E., & Santos, A. C. (2013, July). Thematic content analysis: Is there a difference between the support provided by the MAXQDA® and NVivo® software packages. In Proceedings of the 12th European Conference on Research Methods for Business and Management Studies (pp. 304-314).

O'Malley, B. (2010). Education under attack–2010. Unesco.

Ong, C. S., Lai, J. Y., & Wang, Y. S. (2004). Factors affecting engineers' acceptance of asynchronous e-learning systems in high-tech companies. Information & management, 41(6), 795-804.

Opdenakker, R. (2006, September). Advantages and disadvantages of four interview techniques in qualitative research. In Forum Qualitative Sozialforschung/Forum: Qualitative Social Research (Vol. 7, No. 4). https://doi.org/10.1007/s11423-016-9508-8

O'Reilly, C. (2014). Investment and institutions in post-civil war recovery. Comparative Economic Studies, 56(1), 1-24. doi:10.1057/ces.2013.28

Paksuniemi, M. (2016). Mobilising children for national defence: Boys' education in the finnish civil guard organisation during the second world war. Childhood in the Past, 9(1), 44-57. doi:10.1080/17585716.2016.1161924

Palacios, L., & Evans, C. (2013;2014;). The effect of interactivity in e-learning systems. Newcastle-upon-Tyne: Cambridge Scholars Publishing.

Palermo, J. (2013). ing student evaluations to institutional goals: A change story. Assessment & Evaluation in Higher Education, 38(2), 211-223. https://doi.org/10.1108/1468452111152658255

Palloff, R. M., & Pratt, K. (2007). Building online learning communities: Effective strategies for the virtual classroom. John Wiley & Sons.

Pandey, S. K., Wright, B. E., & Moynihan, D. P. (2012). Pulling the levers: Transformational leadership, public service motivation, and mission valence. Public Administration Review, 72(2), 206-215.https://doi.org/10.1111/bjet.12692

Paredes Goicochea, D. (2018). La cuestión de la violencia en la crítica de hannah arendt a karl marx. Revista De Estudios Sociales no.35, 63, 20-28. doi:10.7440/res63.2018.02

Park, S. M., & Word, J. (2012). Driven to service: Intrinsic and extrinsic motivation for public and nonprofit managers. Public Personnel Management, 41(4), 705-734. doi:10.1177/009102601204100407http://worc.summon.serialssolutions.com/2.0.0

Park, S. M., & Word, J. (2012). Driven to service: Intrinsic and extrinsic motivation for public and nonprofit managers: An earlier version of this manuscript was presented at the international public service motivation (IPSM) research conference, june 7-9, 2009, bloomington, indiana. Public Personnel Management, 41(4), 7

Parrotta, K. L., & Buck, A. R. (2013). Making marx accessible: Understanding alienated labor through experiential learning. Teaching Sociology, 41(4), 360-369. doi:10.1177/0092055X13491505

Passmore, H., Howell, A. J., & Holder, M. D. (2018). Positioning implicit theories of well- being within a positivity framework. Journal of Happiness Studies, 19(8), 2445-2463. doi:10.1007/s10902-017-9934-2

Patel, S., Schechter, M. T., Sewankambo, N. K., Atim, S., Lakor, S., Kiwanuka, N., & Spittal, P. M. (2014). War and HIV: Sex and gender differences in risk behaviour among young men and women in post-conflict gulu district, northern uganda. Global Public Health, 9(3), 325-341. doi:10.1080/17441692.2014.887136

Peris-Ortiz, M., Devece-Carañana, C. A., & Navarro-Garcia, A. (2018). Organizational learning capability and open innovation. Management Decision, 56(6), 1217-1231. https://doi.org/10.1111/bjet.17855558

Perry, J. L., & Vandenabeele, W. (2015). Public service motivation research : Achievements, challenges, and future directions. Public Administration Review, 75(5), 692-699. https://doi.org/10.3102/0002831218792841

Peters, S.J. (2009). Inequalities in education for people with disabilities. Inequality in Education, 149-171. https://doi.org/10.1177/0735633114562255

Pherali, T. (2016). School leadership during violent conflict: rethinking education for peace in Nepal and beyond. Comparative Education, 52(4), 473-491. https://doi.org/10.1002/pam.211458252

Pickering, M., & Griffin, G. (2008). Research methods for cultural studies. Edinburgh: Edinburgh University Press. doi:10.3366/j.ctt1g0b2nv

Pilar, J. D., & Oscar, L. (2014). Creating E-learning games with unity (1st ed.). GB: Packt Publishing.

Pinnock, H., & Hodgkin, M. (2010). Educational access for all. Forced Migration Review, 35, 34-35. 269. https://doi.org/10.1002/pam.21915

Piterberg, G., & Veracini, L. (2015). Wakefield, marx, and the world turned inside out. Journal of Global History, 10(3), 457-478. doi:10.1017/S1740022815000224

Poirier, T. (2012). The effects of armed conflict on schooling in sub-Saharan Africa. International Journal of Educational Development, 32, 341–351. doi: 10.1016/j.ijedudev.2011.06.001

Polillo, S. (2011). Wildcats in banking fields: The politics of financial inclusion. Theory and Society, 40(4), 347-383. doi:10.1007/s11186-011-9146-4

Politis, D. (2008). E-learning methodologies and computer applications in archaeology. Hershey: Information Science Reference.

Pololi, L. H., Krupat, E., Schnell, E. R., & Kern, D. E. (2013). Preparing culture change agents for academic medicine in a Multi-Institutional consortium: The C - change learning action network. Journal of Continuing Education in the Health Professions, 33(4), 244-257. https://doi.org/10.1111/j.1467-8535.2009.4558121414u

Pop, O. M., Leroi-Werelds, S., Roijakkers, N., & Andreassen, T. W. (2018). Institutional types and institutional change in healthcare ecosystems. Journal of Service Management, 29(4), 593-614. https://doi.org/10.1108/ET-12-2018-02

Powell, J. J. W., & Solga, H. (2010). Analyzing the nexus of higher education and vocational training in europe: A comparative-institutional framework. Studies in Higher Education, 35(6), 705-721.

Pöyliö, H., Erola, J., & Kilpi-Jakonen, E. (2018). Institutional change and parental compensation in intergenerational attainment. The British Journal of Sociology, 69(3), 601-625. doi:10.1111/1468-4446.12293

Pradella, L. (2016). Crisis, revolution and hegemonic transition: The american civil war and emancipation in marx's capital. Science & Society, 80(4), 454. https://doi.org/10.1080/10494820.2015.1265555

Pradella, L. (2017). Marx and the global south: Connecting history and value theory. Sociology, 51(1), 146-161. doi:10.1177/0038038516661267

Pullman, G., & Baotong, G. (2016). Designing web-based applications for 21st century writing classrooms. Amityville: Taylor and Francis. doi:10.4324/9781315232454

Punch, K. F. (2009). Introduction to research methods in education. London: SAGE Publications.

Quilley, S. (2018). Relearning: Education for the survival of the species and the planet: Residential schools were designed quite explicitly to obliterate the passing down of local, traditional culture entirely. Alternatives Journal, 43(3-4), 14. https://doi.org/10.1016/j.jclepro.2014.06.145252

Quinlan, C., & Zikmund, W. G. (2015). Business research methods. Andover: Cengage Learning.

Raekstad, P. (2018). Human development and alienation in the thought of karl marx. European Journal of Political Theory, 17(3), 300-323. doi:10.1177/1474885115613735

Rajab, K. D. (2018). The Effectiveness and Potential of E-Learning in War Zones: An Empirical Comparison of Face-to-Face and Online Education in Saudi Arabia. IEEE Access, 6, 6783-6794. DOI: 10.1109/ACCESS.2018.2800164

Raji, S. (2017). Child soldiering and its implications for national security in liberia. Acta Universitatis Danubius. Communicatio, 11(2), 53-78. https://doi.org/10.1002/tea.20314

Ramirez-Andreotta, M. D., Tapper, A., Clough, D., Carrera, J. S., & Sandhaus, S. (2019). Understanding the intrinsic and extrinsic motivations associated with community gardening to improve environmental public health prevention and intervention. International Journal of Environmental Research and Public Health, 16(3), 494. d

Rana, H., & Lal, M. (2014). E-learning: Issues and challenges. International Journal of Computer Applications, 97(5), 20-24. https://doi.org/10.1177/0956797612440101

Reale, E., & Seeber, M. (2011). Organisation response to institutional pressures in higher education: The important role of the disciplines. Higher Education, 61(1), 1-22.

Reilly, R. (2010). Disabilities among refugees and conflict-affected populations'. Forced Migration Review, 35, 8-10. https://doi.org/10.1177/204275302045212

Reinders, H., Thomas, M., & Warschauer, M. (2013;2012;). Contemporary computer- assisted language learning. US: Bloomsbury UK.

Renault, E. (2013). Three marxian approaches to recognition. Ethical Theory and Moral Practice, 16(4), 699-711. doi:10.1007/s10677-013-9413-8

Rhema, A., & Miliszewska, I. (2010). Towards e-learning in higher education in Libya. Issues in Informing Science and Information Technology, 7(1), 423-437. https://doi.org/10.1080/09500693.2020.175895656

Ricciardi, J. (2015). Marx on financial intermediation: Lessons from the french crédit mobilier in the new york daily tribune. Science & Society, 79(4), 497.

Riddle, L., & Brinkerhoff, J. (2011). Diaspora entrepreneurs as institutional change agents: The case of thamel.com. International Business Review, 20(6), 670-680. https://doi.org/10.1017/S095457941614565125

Ritchie, J., Lewis, J., Nicholls, C. M., & Ormston, R. (Eds.). (2013). Qualitative research practice: A guide for social science students and researchers. sage.

Ritz, A., Brewer, G. A., & Neumann, O. (2016). Public service motivation: A systematic literature review and outlook. Public Administration Review, 76(3), 414-426. https://doi.org/10.1080/00131881.2015.114525555

Rivauzi, A. (2015). The education in local islamic culture of maulid nabi tradition: A case study in nurul yaqin ringan-ringan pakandangan padang pariaman boarding school. Al- Ta'Lim, 22(2), 165-173. doi:10.15548/jt.v22i2.132

Robertson, J. (2013). Drupal for education and ELearning (2nd edition) (2nd ed.). GB: Packt Publishing.

Robertson, J. R., & Fitzgerald, B. (2013). Drupal for education and E-learning - second edition (1st ed.) Packt Publishing.

Robinson, K. (2016). A creative approach to teaching spelling: The what, why and how of teaching spelling - starting with phonics!. London: Bloomsbury.

Roca, J. C., & Gagné, M. (2008). Understanding e-learning continuance intention in the workplace: A self-determination theory perspective. Computers in human behavior, 24(4), 1585-1604. https://doi.org/10.1111/cdev.133455

Rodman, K., Biloslavo, R., & Bratoz, S. (2013). Institutional quality of a higher education institution from the perspective of employers. Minerva, 51(1), 71-92. https://doi.org/10.1177/1461444819884373

Roegman, R., & Woulfin, S. (2019). Got theory? Reconceptualizing the nature of the theory-practice gap in K-12 educational leadership. Journal of Educational Administration, 57(1), 2-20. https://doi.org/10.1080/13603124.2017.1318958

Roffe, I. (2004). E-learning. GB: Emerald Group Publishing Ltd.

Rohleder, P., & u.a. (2008). Students' evaluations of the use of e-learning in a collaborative project between two south african universities. Higher Education, 56(1), 95-107. doi:10.1007/s10734-007-9091-3

Rohweder, B., (2015) Delivering education during conflict.Available at https://assets.publishing.service.gov.uk/media/57a08966ed915d622c0001d3/HDQ1209.p df

Roith, C. (2014). Educational theory and practice in post-revolutionary times: The european academic debate on the experimental schools in hamburg (1919 - 1933) in the 1930s and 1970s. Paedagogica Historica, 50(5), 631-650. https://doi.org/10.1080/13504622.2013.812722

Roschelle, J., Martin, W., & Schank, P. (2017, September). Cyberlearning Community Report: Emerging Design Themes in US TEL. In European Conference on Technology Enhanced Learning (pp. 588-592). Springer, Cham.

Rose, C. A., Espelage, D. L., Monda-Amaya, L. E., Shogren, K. A., & Aragon, S. R. (2015). Bullying and middle school students with and without specific learning disabilities: An examination of social-ecological predictors. Journal of Learning Disabilities, 48(3), 239- 254. doi:10.1177/0022219413496279

Rosenberg, M. J., & Foshay, R. (2002). E‐learning: Strategies for delivering knowledge in the digital age. Performance Improvement, 41(5), 50-51. https://doi.org/10.1093/wbro/lkw004

Ross, K. (2015). The paris commune and the literature of the north. Critical Inquiry, 41(2), 269-288. doi:10.1086/679076

Rowan, B., & Miskel, C. G. (1999). Institution theory and the study of educational organizations. In J. Murphy & K. S. Louis (Eds.), Handbook of research on educational administration (2nd ed). San Francisco: Jossey-Bass.

Rowan, B., & Miskel, C. G. (1999). Institution theory and the study of educational organizations. In J. Murphy & K. S. Louis (Eds.), Handbook of research on educational administration (2nd ed). San Francisco: Jossey-Bass. Scott,

Ruairc GM, Ottesen E and Precey R (2013) Leadership for Inclusive Education. Values, Visions and Voices.Rotterdam: Sense Publishers.

Ruane, J. M. (2016;2015;). Introducing social research methods: Essentials for getting the edge. GB: Wiley-Blackwell.

Rubin, H. J., & Rubin, I. S. (2011). Qualitative interviewing: The art of hearing data. Sage.

Russell, J. L. (2011). From child's garden to academic press: The role of shifting institutional logics in redefining kindergarten education. American Educational Research Journal, 48(2), 236-267.

Rustin, M. (2008). New labour and the theory of globalization. Critical Social Policy, 28(3), 273-282. doi:10.1177/0261018308091269

Ryan, G. W., & Bernard, H. R. (2003). Techniques to identify themes. Field methods, 15(1), 85-109. https://doi.org/10.1093/wbro/lkw004

Sabti, A. A., & Chaichan, R. S. (2014). Saudi high school students' attitudes and barriers toward the use of computer technologies in learning english. Springerplus, 3(1), 1-8. doi:10.1186/2193-1801-3-460

Saks, M., & Allsop, J. (2013). Researching health: Qualitative, quantitative and mixed methods (Second ed.). Los Angeles: SAGE.

Salerno, R. A. (2018). Imagining lacan imagining marx. Critical Sociology, 44(2), 259- 266. doi:10.1177/0896920516658942

Salmon, G. (2013). E-tivities: The key to active online learning (Second ed.). New York, New York: Routledge.

Salmon, G., (2002). E-tivities: The key to active online learning. London;Sterling, VA;: Kogan Page.

Salomon, G. (2004). Does peace education make a difference in the context of an intractable conflict? Journal of Peace Psychology, 10: 257–74.

Saunders, M., Lewis, P., & Thornhill, A. (2009). Research methods for business students. Pearson education.

Saunders, M., Lewis, P., & Thornhill, A. (2012). Research methods for business students (6th ed.). Harlow: Pearson.

Saunders, M., Lewis, P., & Thornhill, A. (2016). Research methods for business students (Seventh ed.). Harlow: Pearson Education.

Savin-Baden, M., & Wilkie, K. (2006). Problem-based learning online. GB: Open University Press.

Schneider, Z. (2013). Nursing and midwifery research: Methods and appraisal for evidence-based practice (4th ed.). Chatswood, NSW: Elsevier Australia.

Schönrock-Adema, J., Bouwkamp-Timmer, T., van Hell, E. A., & Cohen-Schotanus, J. (2012). Key elements in assessing the educational environment: Where is the theory? Advances in Health Sciences Education, 17(5), 727-742. https://doi.org/10.1080/02701367.2016.1263381

Schubert, T., Yang, G., Lund University, CIRCLE, & Lunds universitet. (2016). Institutional change and the optimal size of universities. Scientometrics, 108(3), 1129- 1153. doi:10.1007/s11192-016-2015-1

Scott, W. R. (1991). Unpacking institutional arguments. In P. J. DiMaggio & W. W. Powell (Eds.), The new institutionalism in organizational analysis(pp. 164-182). Chicago: University of Chicago Press.

Scott, W. R. (1995). Institutions and organizations. Thousand Oaks, CA: Sage.

Scott, W. R., Ruef, M., Mendel, P. J., & Caronna, C. A. (2000). Institutional change and health care organizations. Chicago: University of Chicago Press

Seitz, K. (2004). Education and conflict. The role of education in the creation, prevention and resolution

of societal crises: Consequences for development cooperation. Eschborn: Deutsche Gesellschaft für Technische Zusammenarbeit.

Seitz, K. (2004). Education and conflict: The role of education in the creation, prevention and resolution of societal crises – Consequences for development cooperation. Eschborn: Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ).

Selim, H. M. (2007). Critical success factors for e-learning acceptance: Confirmatory factor models. computers & Education, 49(2), 396-413.

Serneels, P., & Verpoorten, M. (2015). The impact of armed conflict on economic performance: Evidence from rwanda. The Journal of Conflict Resolution, 59(4), 555-592. doi:10.1177/0022002713515409

Shemyakina, O. (2011). The effect of armed conflict on accumulation of schooling: Results from Tajikistan. Journal of Development Economics, 95, 186–200. doi: 10.1016/j.jdeveco.2010.05.002

Shields CM (2014) The war on poverty must be won: Transformative leaders can make a difference. International Journal of Educational Leadership and Management 2(2): 124– 146. https://doi.org/10.1037/dev0000626

Shou, Y., Shao, J., & Chen, A. (2017). Relational resources and performance of chinese third-party logistics providers: The mediating role of innovation capability. International Journal of Physical Distribution & Logistics Management, 47(9), 864-883.

Shraim, K., & Khlaif, Z. (2010). An e-learning approach to secondary education in Palestine: opportunities and challenges. Information Technology for Development, 16(3), 159-173. https://doi.org/10.1037/dev152262

Simonson, M., Schlosser, C. and Orellana, A. 2011 Distance education research: A review of the literature. Journal of Computing in Higher Education, 23(2-3),124-142

Sing, M., & Younes, M. (2013). The specters of marx in edward said's orientalism. Welt Des Islams, 53(2), 149-191. doi:10.1163/15700607-0532P0001

Singh, P., & Shemyakina, O. (2013). Gender-differential effects of conflict on education: The case of the 1981–1993 Punjab Insurgency (Working Paper 143). Retrieved from Households in Conflict Network website: http://www.hicn.org/wordpress/wp- content/uploads/2012/06/HiCN-WP-143.pdf

Skinner, J., Edwards, A., & Corbett, B. (2015). Research methods for sport management. London: Routledge.

Skues, J. L., & Cunningham, E. G. (2013). The role of e-learning coaches in australian secondary schools: E-learning coaches in secondary schools. Journal of Computer Assisted Learning, 29(2), 179-187. doi:10.1111/j.1365-2729.2012.00488.x

Sloan, L., & Quan-Haase, A. (2017). The sage handbook of social media research methods. Los Angeles: Sage.

Smith, A. (2005). Education in the twenty-first century: Conflict, reconstruction and reconciliation. Compare, 35(4), 373–391. https://doi.org/10.1007/s10639-020-10325-x

267

Smith, A. (2005). Education in the twenty-first century: Conflict, reconstruction and reconciliation. Compare, 35(4), 373–391.

Smith, L., & Keith, P. (1971). Anatomy of educational innovation: An organizational analysis of an elementary school. New York: Basic Books

Smith, T. (2018). How not to go beyond marx: A reply to worrell and krier. Critical Sociology, 44(2), 241-257. doi:10.1177/0896920516649419

social consequences. In F. Stewart & V. FitzGerald (Eds.), War and underdevelopment (pp. 67–103). Oxford: Oxford University Press.

Sommers, M. (2002). Youth care & protection of children in emergencies: A field guide'. Washington, DC: Save the Children.

Sommers, M., (2002) Children, Education and War: Reaching Education for All Objective: in countries affect by conflict.Available at http://siteresources.worldbank.org/EDUCATION/Resources/278200-1099079877269/547664-1099079993288/children_edu_war_efa02.pdf

Sowers, J. L., Weinthal, E., & Zawahri, N. (2017). Targeting environmental infrastructures, international law, and civilians in the new middle eastern wars. Security Dialogue, 48(5), 410-430. doi:10.1177/0967010617716615

Soysa, I. d., Fjelde, H., Humanistisk-samhällsvetenskapliga vetenskapsområdet, Uppsala universitet, Samhällsvetenskapliga fakulteten, & Institutionen för freds- och konfliktforskning. (2010). Is the hidden hand an iron fist? capitalism and civil peace, 1970- 2005. Journal of Peace Research, 47(3), 287-298. doi:10.1177/0022343310362167

Sparks, S. D. (2014). Calif. school taps community to engage students; educators learning to local culture, local needs. (san ysidro high school in california). Education Week, 33(34), 20. https://doi.org/10.1007/s10639-020-1032455256

Spassov, P. (2014). NATO, russia and european security: Lessons learned from conflicts in kosovo and libya. Connections, 13(3), 21-40. doi:10.11610/Connections.13.3.02

Speziale, H. S., Streubert, H. J., & Carpenter, D. R. (2011). Qualitative research in nursing: Advancing the humanistic imperative. Lippincott Williams & Wilkins.

Stabback, P. (2004). Curriculum development, diversity, and division in Bosnia and Herzegovina. In S. Tawil., & A. Harley (Eds.), Education, conflict, and social cohesion. Geneva: International Bureau of Education.

Stake, R. E. (1995). The art of case study research. Sage.

Starbuck, W.H. (1976) Organizations and their environments, Chicago, Rand McNally

Steijn, B. (2008). Person-environment fit and public service motivation. International Public Management Journal, 11(1), 13-27. https://doi.org/10.1177/0022487116654005

Stein, S. J., Shephard, K., & Harris, I. (2011). Conceptions of e-learning and professional development for e-learning held by tertiary educators in new zealand. British Journal of Educational Technology, 42(1), 145-165. doi:10.1111/j.1467-8535.2009.00997.x

268

Stensaker, I. G., & Meyer, C. B. (2012). Change experience and employee reactions: Developing capabilities for change. Personnel Review, 41(1), 106-124.

Stewart, F., Huang, C., & Wang, M. (2001). Internal wars in developing countries: An empirical overview of economic andsocial consequences. In F. Stewart & V. FitzGerald (Eds.), War and underdevelopment (pp. 67–103). Oxford: OxfordUniversity Press.

Straub, E. T. (2009). Understanding technology adoption: Theory and future directions for informal learning. Review of Educational Research, 79(2), 625-649. doi:10.3102/0034654308325896

Struna, J. (2009). Toward a theory of global proletarian fractions. Perspectives on Global Development and Technology, 8(2-3), 230-260. doi:10.1163/156914909X423881

Stulberg, L. M., & Chen, A. S. (2014). The origins of race-conscious affirmative action in undergraduate admissions: A comparative analysis of institutional change in higher education. Sociology of Education, 87(1), 36-52. https://doi.org/10.1177/0022487116654005

Sun, P. C., Tsai, R. J., Finger, G., Chen, Y. Y., & Yeh, D. (2008). What drives a successful e-Learning? An empirical investigation of the critical factors influencing learner satisfaction. Computers & education, 50(4), 1183-1202. https://doi.org/10.1177/1741143217739363

Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. The social psychology of intergroup relations?, 33, 47. https://doi.org/10.1080/00313831.2017.1336478

Tak, H. J., Curlin, F. A., & Yoon, J. D. (2017). Association of intrinsic motivating factors and markers of physician well-being: A national physician survey. Journal of General Internal Medicine, 32(7), 739-746. doi:10.1007/s11606-017-3997-y

Tam, V. C., Chan, J. W. W., Li, S. C., & Pow, J. (2018). Developing and managing school human capital for information and communication technology integration: A case study of a school-based e-learning project in hong kong. International Journal of Leadership in Education, 21(4), 447-461. doi:10.1080/13603124.2017.1318958

Tamtam, A., Gallagher, F., Olabi, A. G., & Naher, S. (2011). Higher education in Libya, system under stress. Procedia-Social and Behavioral Sciences, 29, 742-751. https://doi.org/10.1016/j.sbspro.2011.11.300

Taylor, S. J., Bogdan, R., & DeVault, M. (2015). Introduction to qualitative research methods: A guidebook and resource. John Wiley & Sons.

Teater, B., Forrester, D., Devaney, J., Scourfield, J., & Carpenter, J. (2017). Quantitative research methods for social work: Making social work count. London: Palgrave Macmillan.

Thoenig, J., & Paradeise, C. (2016). Strategic capacity and organisational capabilities: A challenge for universities. Minerva, 54(3), 293-324. https://doi.org/10.1080/00313831.2017.1336478

Thomas, J. R., Silverman, S., & Nelson, J. (2015). Research methods in physical activity, 7E. Human kinetics.

Thompson, J. A., & Christensen, R. K. (2018). Bridging the public service motivation and calling literatures. Public Administration Review, 78(3), 444-456.

https://doi.org/10.30935/cedtech/7630

Thompson, J.D. (1967) Organizations in action, New York, McGraw-Hill.

Thorne, K. (2003). Blended learning: how to integrate online & traditional learning. Kogan Page Publishers.

Tomba, M. (2013). Accumulation and time: Marx's historiography from the grundrisse to capital. Capital & Class, 37(3), 355. doi:10.1177/0309816813502712

Tomlinson, K., and P. Benefield. (2005). Draft report. Education and conflict: Research and research possibilities. Berkshire: National Foundation for Education Research.

Torkkeli, L., Kuivalainen, O., Saarenketo, S., & Puumalainen, K. (2019). Institutional environment and network competence in successful SME internationalisation. International Marketing Review, 36(1), 31-55. https://doi.org/10.30935/cedtech/7630

Tornatzky, L. and Fleischer, M. (1990) The process of technology innovation, Lexington, MA, Lexington Books.

Tracy, S. J. (2013). Qualitative research methods: Collecting evidence, crafting analysis, communicating impact. Chichester, West Sussex: Wiley-Blackwell.

Trani, J., Kett, M., Bakhshi, P., & Bailey, N. (2011). Disability, vulnerability and citizenship: to what extent is education a protective mechanism for children with disabilities in countries affected by conflict?' International Journal of Inclusive Education, 15(10), 1187-1203.

Trowler, P., Hopkinson, P., & Comerford Boyes, L. (2013). Institutional change towards a sustainability agenda: How far can theory assist? Tertiary Education and Management, 19(3), 267-279. https://doi.org/10.3945/jn.112.171280

Tselios, N., Daskalakis, S., & Papadopoulou, M. (2011). Assessing the acceptance of a blended learning university course. Journal of Educational Technology & Society, 14(2), 224,235.

Tuckett, A. G. (2005). Applying thematic analysis theory to practice: a researcher's experience. Contemporary nurse, 19(1-2), 75-87. . https://doi.org/10.1111/desc.12808

Tukiainen, S., & Granqvist, N. (2016). Temporary organizing and institutional change. Organization Studies, 37(12), 1819-1840. https://doi.org/10.1111/bjet.12195

Tuner, L. A., & Angulo, A. J. (2018). Risky business: An integrated institutional theory for understanding high-risk decision making in higher education. Harvard Educational Review, 88(1), 53-80. https://doi.org/10.1111/j.1467-8535.2012.01351.x

UIS (2012), summary report of the 2012 UIS innovation metadata collection, Available on: http://uis.unesco.org/sites/default/files/documents/summary-report-of-the-2012 uisinnovation-metadata-collection-2013-en.pdf [Accessed on May 2018].

UN. (1989). Convention on the rights of the child. New York: Author. 272 UN. (1989). Convention on the rights of the child. New York: Author. 272 UN. (2006). Convention on the rights of persons with disabilities. New York: UN. (2006). Convention on the rights of persons with disabilities. New York:

Underwood, J. D. M., & Farrington-Flint, L. (2014;2015;). Learning and the E-generation (1st ed.). Hoboken: John Wiley & Sons, Incorporated.

Underwood, J. D. M., & Farrington-Flint, L. (2015). Learning and the E-generation: 1. publ. Chichester u.a: Wiley Blackwell.

UNESCO. (2000). The Dakar Framework for Action, Education for All: Meeting our collective commitment. Paris: Author.

UNESCO. (2011). EFA global monitoring report 2011. The hidden crisis: Armed conflict and education. Paris: Author.

UNESCO. (2015). EFA global monitoring report 2015. Education for All 2000-2015: Achievements and challenges. Paris: Author.

UNESCO. (2015). EFA global monitoring report 2015. Education for All 2000-2015: Achievements and

challenges. Paris: Author.

Unhcr (2018) 'Liberia factsheet. available at: https://reliefweb.int/report/liberia/unhcr- liberia-factsheet-october-2018 (accessed: 31 October 2018)

UNHCR.(2006). Education in emergencies. http://www.unhcr.org/cgi-bin/texis/vtx/protect?id=405030ee4

UNICEF (2018) 'Libya Humanitarian Situation Report'. available at: https://reliefweb.int/report/libya/unicef-libya-humanitarian-situation-report-mid-year- 2018 (accessed: 27 july 2018)

United Nations Scientific and Cultural Organisation (UNESCO). (1990). World Declaration on Education for All. Adopted by the world conference on education for all. Jomtien, Thailand, 5–9 March, Paris: Author.

Valente, C. (2014). Education and civil conflict in nepal. World Bank Economic Review, 28(2), 354-383. doi:10.1093/wber/lht014

Van de Walle, S., Steijn, B., & Jilke, S. (2015). Extrinsic motivation, PSM and labour market characteristics: A multilevel model of public sector employment preference in 26 countries. International Review of Administrative Sciences, 81(4), 833-855. https://doi.org/10.1111/j.1467-8535.2012.01351.x

Van Teijlingen, E., & Hundley, V. (2002). The importance of pilot studies. Nursing standard, 16(40). https://doi.org/10.1080/00131911.2011.625111

Vandenabeele, W. (2007). Toward a public administration theory of public service motivation: An institutional approach. Public Management Review, 9(4), 545-556.

Vandenabeele, W., Brewer, G. A., & Ritz, A. (2014). Past, present, and future of public service motivation research. Public Administration, 91(2), 584-599. https://doi.org/10.1111/bjep.12380

Vandewalle, D. (2018). Libya since independence: oil and state-building. Cornell University Press.

Venkatesh, V., Morris, M.G., Davis, G.B. and Davis, F.D. (2003) User acceptance of information technology: Toward a unified view, "MIS Quarterly", Vol. 27, No. 3, pp. 425- 478

Walker, I., Dr. (2010). Research methods and statistics. Houndmills, Basingstoke, Hampshire;New York, NY;: Palgrave Macmillan.

Walliman, N. (2010). Research methods. Hoboken: Taylor and Francis.

Walliman, N. (2018). Research methods: The basics. London, [England];New York, New York;: Routledge.

Walter, S. G., & Block, J. H. (2016). Outcomes of entrepreneurship education: An institutional perspective. Journal of Business Venturing, 31(2), 216-233. 91(2), 584-599. https://doi.org/10.1111/bjep.12380

Wang, T. H. (2014). Implementation of Web-based argumentation in facilitating elementary school students to learn environmental issues. Journal of Computer Assisted Learning, 30(5), 479-496. doi:10.1111/jcal.12061

Wankel, C., & Blessinger, P. (2013). Increasing student engagement and retention in e- learning environments: Web 2. 0 and blended learning technologies. Bingley: Emerald Publishing Limited.

Watson, J. (2008). Blended Learning: The Convergence of Online and Face-to-Face Education. Promising Practices in Online Learning. North American Council for Online Learning.

Weber, M. (1952). The protestant ethic and the spirit of capitalism. New York: Scribner.

Weinstein, J. M., & Imai, K. (2000). Measuring the economic impact of civil war (Working Paper No. 51). Retrieved from Harvard University Center for International Development website: http://www.hks.harvard.edu/var/ezp_site/storage/fckedi tor/file/pdfs/centers-programs/centers/cid/publications/faculty/wp/051.pdf

Weinstein, J. M., & Imai, K. (2000). Measuring the economic impact of civil war (Working Paper No. 51). Retrieved from

Wellington, J. J., & Ireson, G. (2018). Science learning, science teaching (Fourth ed.). London, [England];New York, New York;: Routledge.

Weston, T. (2012). Marx on the dialectics of elliptical motion. Historical Materialism, 20(4), 3-38. doi:10.1163/1569206X-12341266

Wharton, K., & Oyelere, R. (2011). Conflict and its impact on educational accumulation and enrollment in Colombia: What we can learn from recent IDPs (IZA Discussion Paper No. 5939). Retrieved from Institute for the Study of Labor website: http://www.iza.org/en/webcontent/publications/papers/viewAbstract?dp_id=5939

Wheeler, S., & Gerver, R. (2015). Learning with 'e's : Educational theory and practice in the digital age. Williston: Crown House Publishing.

Whiting, L. S. (2008). Semi-structured interviews: guidance for novice researchers. Nursing Standard, 22(23). https://doi.org/10.1257/jep.31.4.185

Whitton, N., & Moseley, A. (2012). Using games to enhance learning and teaching: A beginner's guide. London: Taylor and Francis.

Williams, M., & Vogt, W. P. (2011). The SAGE handbook of innovation in social research methods. London; Los Angeles, [Calif.];: SAGE.

Willig, C., & Stainton Rogers, W. (2017). The SAGE handbook of qualitative research in psychology (Second ed.). Los Angeles: SAGE.

Winthrop, R. (2009). Armed conflict, schooling, and children's wellbeing (Doctoral thesis). Available from ProQuest Dissertations & Theses Global database. (Record No. 3373581)

Wiseman, A. W., Astiz, M. F., & Baker, D. P. (2014). Comparative education research framed by neo-institutional theory: A review of diverse approaches and conflicting assumptions. Compare: A Journal of Comparative and International Education, 44(5), 688- 709. doi:10.1080/03057925.2013.800783.

World Bank (2005) Reshaping the Future: Education and Post-conflict Reconstruction. Washington, D.C: The International Bank for Reconstruction and Development.

World Economic Forum (2020) The COVID-19 pandemic has changed education forever. This is how. weforum.or/agenda/2020/04/coronavirus-global-vcovid19-online-digital- learning.

World Vision. (2007). Education's missing millions: Including disabled children in education through EFA FTI processes and national sector plans. Milton Keynes: Author

Wright, B. E., & Grant, A. M. (2010). Unanswered questions about public service motivation: Designing research to address key issues of emergence and effects. Public Administration Review, 70(5), 691-700. https://doi.org/10.1016/S0140-6736(18)31250-9

Wright, B. E., & Pandey, S. K. (2008). Public service motivation and the assumption of Person—Organization fit: Testing the mediating effect of value congruence. Administration & Society, 40(5), 502-521. https://doi.org/10.1080/14767724.2017.1387769

Wright, J. (2007). The primary ICT and e-learning co-ordinator's manual Sage Publications.

Wyly, E. (2009). Strategic positivism. The Professional Geographer, 61(3), 310-322. doi:10.1080/00330120902931952

Yamani, H. A. (2014). E-learning in Saudi Arabia. Journal of Information Technology and Application in Education, 3(4), 152-157. https://doi.org/10.1080/00220272.2020.1759694

Yang, D., Wang, A. X., Zhou, K. Z., & Jiang, W. (2019). Environmental strategy, institutional force, and innovation capability: A managerial cognition perspective. Journal of Business Ethics, 159(4), 1147-1161.https://doi.org/10.1080/01425692.2016.1165087

Yang, L., & Gergen, K. (2012). Social construction and its development: Liping yang interviews kenneth gergen. Psychological Studies, 57(2), 126-133. doi:10.1007/s12646- 012-0146-x

Yılmaz, M. E. (2012). peacebuilding in libya. International Journal on World Peace, 29(1), 45-57. https://doi.org/10.1177/1541344618779561

Yin, R. K. (2017). Case study research and applications: Design and methods. Sage publications.

Ylimaki, R. M., & Brunner, C. C. (2011). Power and Collaboration-Consensus/Conflict in curriculum leadership: Status quo or change? American Educational Research Journal, 48(6), 1258-1285. doi:10.3102/0002831211409188.

York, R., & Clark, B. (2006). Marxism, positivism, and scientific sociology: Social gravity and historicity. The Sociological Quarterly, 47(3), 425-450. doi:10.1111/j.1533- 8525.2006.00052.x

Younie, S., & Leask, M. (2013). Teaching with technologies: The essential guide. Maidenhead: Open

University Press.

Ypi, L. (2014). On revolution in kant and marx. Political Theory, 42(3), 262-287. doi:10.1177/0090591714523138

Zack-Williams, Tunde (Ed.). (2012). When the State Fails: studies on Intervention in the Sierra Leone Civil War.London: Pluto Press.

Zannier, L. (2017). Addressing armed conflicts in the twenty-first century: Challenges and prospects for multilateral diplomacy 1. The Brown Journal of World Affairs, 24(1), 121- 137.

Zare, M., Pahl, C., Rahnama, H., Nilashi, M., Mardani, A., Ibrahim, O., & Ahmadi, H. (2016). Multi-criteria decision making approach in E-learning: A systematic review and classification. Applied Soft Computing, 45, 108-128. https://doi.org/10.1080/14675986.2020.1794123

Zhang, D., Zhao, J. L., Zhou, L., & Nunamaker Jr, J. F. (2004). Can e-learning replace classroom learning?. Communications of the ACM, 47(5), 75-79. https://doi.org/10.1080/17400200802264321

Zhang, G., Boyce, G., & Ahmed, K. (2014). Institutional changes in university accounting education in post-revolutionary china: From political orientation to internationalization. Critical Perspectives on Accounting, 25(8), 819-843. https://doi.org/10.1080/00071005.2018.1533099

Zhou, Y. (2008). Voluntary adopters versus forced adopters: Integrating the diffusion of innovation theory and the technology acceptance model to study intra-organizational adoption. New Media & Society, 10(3), 475-496. 75https://doi.org/10.1051/shsconf/20207502005

Zundans-Fraser, L., & Bain, A. (2016). How do institutional practices for course design and review address areas of need in higher education? Higher Education Research & Development, 35(4), 841-853. doi:10.1080/07294360.2015.1137883.

# APPENDICES

## APPENDIX 1: SEMI STRUCTURE INTERVIEW QUESTIONS

**Dear Sir / Madam,**

It is my pleasure to have your voluntarily participation in completion of my PHD thesis at University of Salford. I am interested to conduct interviews from you which is an important ingredient of a PHD research plan, and your voluntary participation is highly valuable and useful for my study. Subject of this research work encompasses the restart of secondary school student's education after violent conflict in Libya. The focus of my research is to evaluate how secondary school students can restart when there are challenges of infrastructure, finance, human capital, fundamental needs, safety and security.

In this study, your selection is completely indiscriminately and voluntarily. You are completely free to decide whether you want to participate in interviews or not. However, I would be happy and appreciate your participation because my research objectives are based on your valuable response and motivation to share your experiences, opinions, or thoughts. I am considering those individuals who have more than 18 years old and worked/attached/ or working in secondary school environment especially in southern cities of Libya which face extreme violent conflict and many challenges. For your response and completion of this interview, you will have to spare just 20 to 35 minutes from your precious time and you are free to exit from interview at any stage as well as without telling the reasons.

I hereby assure you that the data collected by this interview must be kept secure and not used for any other purpose except this study. I am also ensuring your that not a single question from interviews will explore your personal identity as well as the numerical numbers that are assigned to interview questions will be used in data evaluation. The collected interviews data will be used in data assessment procedure against this ID number, while your private/personal data would have nothing to do with the current work or any other publication. My research work is a completely unpaid and your participation as an interviewee will completely reflect your willingness to take part in this work.

You can inquire me about anything related to this study without any hesitation, kindly keep in touch with me through my private number …………………… or through email address …………………………

The formal approval for my research study has been taken from ……………………………….ethics Committee. I am gladly acknowledged your support and valuable feedback for this study.

Yours Truly,

**Note:** You are informed here that you are completely free to choose which interview question has to be answered and which is not, moreover you have authority to leave the interview at any time and at any stage without telling the reason of quit.

# INTERVIEW QUESTION

**1. General question**

1. Please indicate your age group

19-30

31-45

46-60

**2. Please indicate your years of experience**

1-5

6-10

11-15

16-20

**3. Your qualification**

- Professional education diploma holder
- Bachelor's degree holder
- Master's degree
- Above master (Phd, DBA)

**4. Your designation**

- A head teacher
- Teacher
- An education officers

**Definition of e-learning**: E-learning is based on learning consuming electronic technologies to get right to use educational curriculum beyond the traditional boundary of classroom. It is collaborative service thereby students with fellow students and teachers can communicate one another in a class. E-Learning delineates a tool set of technology-based methods employed to enhance student learning that can encompass to provide services of assessment, tutoring, as well as instruction via internet. Teacher and students can use mobile, tablets, computer and laptops for interaction with each other via internet.

**Interview Questions**

1. How violent conflict produce negative consequences for teachers and students of secondary school(s)?
2. How violent conflict influenced the education infrastructure and parents of secondary school students?
3. Whether armed groups are involved to create security and safety risks in secondary schools in southern cities or not?
4. How much education is affordable for those families who are living below the poverty line or in refugee camps?
5. How many children's have not gotten admission due to overcrowded classes and limited resources in schools?
6. Do you think private school are affordable for students and how much these schools have capacity to enrol the students after extreme violent conflict?
7. Whether students, parents, government, and teachers are struggling to restart secondary school in your city or not?
8. What type of difficulties student(s) and teacher(s) are facing to access their schools in southern cities?
9. Do you believe that the Libyan government and other stakeholders able to restart secondary school class-based education within short time (1 to 3 years) in your city?
10. What are the challenges for restarting of secondary school education in your previous/current working place after seven-year violent conflict?
11. Whether e-learning is an alternative substitute of class-based education for secondary school(s) or not?

12. What types of learning difficulties are condition that can cause an individual to experience problems in a e-learning of secondary school classroom context?

**Hint:**

**Student related issues**: academic confidence, age, gender, motivation, conflicting parities, technology confidence.

**Teachers related issues:** time, skills, motivation and commitment, technical confidence, technical knowledge and skills, qualification and competence, etc.

13. What kinds of technological difficulties are condition that can cause to offer e-learning for secondary schools in Libya?

**Hint:**

**Technological issues**: availability of internet and devices, , access, cost, software language and interface design etc.

14. What kinds of course related difficulties are condition that can cause to offer e-learning for secondary schools in Libya?

**Hint:**

**Course related issues**: subject content, curriculum design, localization, teaching and learning activities, assessments, delivery mode (flexibility), availability of educational resources, etc.

**Costs:** books, eBooks, access rates, technology, institutional economy and funding, etc. Social issues: rule and regulations, role of parent, students, and parent, student interest in conflict and war, family priorities, attitude towards IT and e-learning etc.

15. What kinds of institutional related difficulties are condition that can cause to offer e-learning for secondary schools in Libya?

**Hint:**

**Institutional**: goal and budget of ministry of education, priorities of ministry of education awareness, availability of skills etc.

16. Do you think teachers and students have awareness, knowledge, and intention to e-learning in delivery of education and learning purpose?

17. Can you describe whether class-based or e-learning based education is easy to restart the education of secondary school students?

18. What is e-learning for you, and do you know the benefits and disadvantages of e-learning especially in the perspective of secondary school students?

19. What steps must be required if government and other stakeholders want to formulate and implement e-learning system in secondary school(s) in southern cities of Libya?