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Exploring the Ways in Which Learners Regulate Their Learning on a Blended Learning Course at King Khalid University, Saudi Arabia

by

Sami Alshahrani

Thesis for the degree of Doctor of Philosophy

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ABSTRACT

FACULTY OF SOCIAL AND HUMAN SCIENCES

Southampton Education School

Doctor of Philosophy

EXPLORING THE WAYS IN WHICH LEARNERS REGULATE THEIR LEARNING ON A BLENDED LEARNING COURSE AT KING KHALID UNIVERSITY, SAUDI ARABIA

by Sami Alshahrani

Saudi Arabia is experiencing an enormous increase in demand in the higher education sector. This imposes the challenge of providing access for all students, across the country, to a high standard of teaching and learning. One clear response is the massive growth in the number of universities adopting online and blended learning approaches. Although many studies have recently been conducted in Saudi Arabia to investigate different aspects of the blended learning approach in the context of the country's higher education, none gives a comprehensive picture of learner presence in such an environment.

This study is conducted to explore how male learners regulate and manage their own learning on a blended learning course at a university in Saudi Arabia. The study adopts Pintrich, Smith, Garcia, and McKeachie (1991) 'framework', so the investigation will involve the following main aspects of the learner: motivational; cognitive and metacognitive; and learning resource management. It adopts a mixed method approach, whereby the research main and sub-questions will be addressed both quantitatively and qualitatively.

The quantitative results were classified according to the most evident aspect of self-regulated learning among participants, then confirmed and interpreted qualitatively. Although the overall results revealed that the motivational aspect of self-regulated learning was the most evident aspect among learners on that course, the research outcomes also showed a positive overall level of self-regulated learning.

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Declaration of Authorship

I, Sami Alshahrani, declare that the thesis entitled: 'Exploring the Ways in Which Learners Regulate their Learning on a Blended Learning Course at King Khalid University, Saudi Arabia' and that the work presented in the thesis are both my own and have been generated by me as the result of my own original research. I confirm that:

1. This work was done wholly or mainly while in candidature for a research degree at this University;
2. Where any part of this thesis has previously been submitted for a degree or any other qualification at this University or any other institution, this has been clearly stated;
3. Where I have consulted the published work of others, this is always clearly attributed;
4. Where I have quoted from the work of others, the source is always given. With the exception of such quotations, this thesis is entirely my own work;
5. I have acknowledged all main sources of help;
6. Where the thesis is based on work done by myself jointly with others, I have made clear exactly what was done by others and what I have contributed myself;
7. None of this work has been published before submission.

Signed: Sami Alshahrani……

Date: 3 February 2015……

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Exploring the Ways in Which Learners Regulate their Learning on a Blended Learning Course at King Khalid University, Saudi Arabia

Chapter 1: Introduction

1.1 Background to the Researcher's Professional Development and Research Interests

As an educator who had served since 1999 in the field of education at different levels as a classroom teacher, as an educational supervisor and as lecturer in Learning Technology, I regularly had a central question at the forefront of my mind: What makes my outstanding students different from their colleagues in terms of their attainments and achievements?

I considered many explanations during my professional career, but none were totally convincing to me. Later, in the academic year 2007/2008, I had the opportunity to complete my Masters degree in Information Communication Technology in Education (ICT) at the School of Education at Nottingham University. Interestingly, during that year I went back to being a learner, still asking this same central question. This gave me scope to observe the learning from within the learning process.

During my course I was exposed to many learning theories and learning technologies that combined to form a wider understanding of what it means to be a learner and what one needs to do to achieve distinction in one's studies. For instance, studying the different learning theories (behaviourism, constructivism, social constructivism, etc.) gave me a foresight that it is not easy to define learning phenomena from a single perspective. In addition, during the course we were introduced to an application called PebblePad e-portfolio (a personal learning space in which learners may record and reflect on an extensive range of activities and attainments over time and then demonstrate these in different personalised ways to tell a compelling story about themselves and why they are unique (Pebble Learning Ltd, 2010)). I learned from this that learning at your own pace is not an easy thing to do, yet it is an essential aspect of the learning process and one that I believe improves many aspects of learning skills.

In 2010, I joined colleagues in Saudi Arabia in launching an Educational Consultation Centre that aims to provide consultation services to assist practitioners in improving educational practice. In the same academic year (2010/2011) we were engaged in designing a professional development course for an educational institution in Saudi Arabia. The role of the learner on that course was based on social constructivist learning theory, whereby an individual is expected to be active in collaborating with colleagues. The informal evaluation report (unpublished) revealed a significant level of satisfaction among participants about their role and their overall average of achievement. This practical experience strengthened my understanding of the impact of being active in the learning process and its outcomes, and enhanced my understanding of my old central question.

In the academic year of 2011/2012 two main developments took place in my career. First, I became a lecturer in the Department of Learning Technology in the School of Education at Najran University in Saudi Arabia. Second, I had the opportunity to finish my PhD degree at the University of Southampton. During my study time I expanded my understanding about my central question: What makes outstanding students different from other students in terms of their attainments and achievements? I then encountered what I believe is a key paper in this context: ‘Self-Regulated Learning and Academic Achievement: An overview’, by Zimmerman (1990). This provided me with further understanding of the main aspects that contribute to the level of achievment of a learner, namely the motivational, cognitive and metacognitive, and behavioural aspects (Zimmerman, 1990).

In the first year of my PhD study in 2011/2012 I developed my first proposal, Examining the Effectiveness of using E-portfolio to Support Self-regulated Learning in the Context of Higher Education in Saudi Arabia. After long discussions during supervisory meetings, I concluded that there was a vital need to build a wide and valid understanding of what the literature said about the different aspects of self-regulated and online learning in the context of higher education in Saudi Arabia. Therefore, I conducted an intensive literature search. Although there are general initiatives taking place in the sector of higher educational in Saudi Arabia, namely expanding the use of blended learning approach and improving the learning abilities for university students (further illustrations will be provided in the literature review chapter), I concluded that,

to the best of my knowledge, there is no coherent understanding about how online learners in the Saudi higher educational setting regulate and manage their own learning.

1.2 Overview of the Research

In the higher education sector there is worldwide interest in meeting the needs of the twenty-first century (Alebaikan, 2010). One of the central challenges facing Saudi universities is that the population is increasing very rapidly, so access to education is a critical issue; currently, it is estimated that people who are under 20 years comprise almost half the population (Albalawi, 2007). As a result, there are now 24 public and nine private universities in Saudi Arabia (Smith & Abouammoh, 2013), while in 1975 there were only seven (Alamri, 2011). This led to a challenge to achieve high quality teaching and learning standards. It includes many aspects such as a student's ability to acquire learning skills, an efficient interactive delivery of knowledge, a contemporary developed curriculum and advanced technological teaching facilities (Smith & Abouammoh, 2013).

At the same time, universities have realised the benefit of blending face-to-face with online instruction to enhance the learning process (Alebaikan, 2010). In the context of Saudi Arabia, an increasing number of universities employ blended learning (Alebaikan & Troudi, 2010; Almalki, 2011). This is for several reasons: first, as stated above, almost 60 per cent of the Saudi population is 20 years old or younger, and they have engaged with new technologies more quickly than expected. Thus, it is expected that internet use and provision will continue to increase quickly in Saudi Arabia, raising the issue of providing new learning strategies that involve the use of technology (Alebaikan & Troudi, 2010). Second, developing education systems in Saudi Arabia is one of the main commitments of the Saudi government; for example, the Ministry of Higher Education established a National Plan for Information Technology that promotes e-learning and distance education in higher education (Alebaikan & Troudi, 2010). In 2006, the National Plan for Information Technology recognised a national centre called the National E-learning and Distance Learning Centre (NELC).

The NELC is responsible for providing the technical support needed to develop digital educational content in higher education throughout the country (Alebaikan & Troudi, 2010). Accordingly, the Director of the National Centre for E-learning and Distance

Learning emphasised how the Ministry of Higher Education is urging Saudi universities to reduce class attendance for students and faculties by blending online and traditional learning (Almalki, 2011). Finally, new technology enables universities to reach the anticipated large numbers of students as well as being available to students at any time and anywhere (Albalawi, 2007). Although, in general, there is a positive attitude among both students and instructors toward the use of blended learning in Saudi universities (Alebaikan, 2010; Algahtani, 2011; Alqahtani, 2010), there is still a need for investigation into learner performance on a blended learning course (Alebaikan, 2010). This study utilises a mixed methods approach to explore the perceptions of male learners at King Khalid University taking a blended learning course regarding how they regulate their own learning.

1.3 Problem Statement

The rapid increase in the Saudi population has made access to education a critical issue. Not only is the population very young (Albalawi, 2007), but in 2003 the Saudi Minister of Higher Education, Dr Khalid Al-Anqari, announced that his Ministry would accept all high school graduates at any Saudi university (Albalawi, 2007). So, institutions of higher education in Saudi Arabia face a challenging situation of overcrowding and a lack of sufficient traditional facilities to provide appropriate educational services for the country's qualified students (Al-Erieni, 1999, cited in Albalawi, 2007). As discussed, web-based instruction has been suggested as an effective approach to providing a learning and teaching experience to the large numbers of students (Albalawi, 2007). With respect to the blended learning approach in Saudi Arabia, in the last decade there has been growing interest in blended learning in higher education. This began after the Saudi Ministry of Higher Education established the National Centre of E-learning and Distance Learning in 2008, known as the ELC, to organise the change and to provide and prepare e-learning material (Al-Dosari, 2011).

Since then, there has been an increase in the number of universities that have agreed to implement the system and attempts have been made to transfer to an e-learning system integrated with a traditional system of education (Al-Dosari, 2011). One example of this commitment is that students at King Khalid University are encouraged to take online courses, not as a second-class alternative but as a first-class method of instruction (Al-Dosari, 2011). The university has provided three levels of e-courses: supportive level;

blended level; and entirely online. The University recently adopted a five-year strategic plan to enhance the quality of education. The plan aims to make 10 per cent of the overall curriculum available electronically in a blended learning mode, and it is expected that more faculties will offer blended courses in the near future (Alebaikan, 2011).

However, the implementation of blended learning in Saudi universities is still in its initial stages (Alebaikan, 2010), and it has been emphasised that the introduction of web-based education would force Saudi universities to move from formal classroom training and education to a new approach to teaching and learning that requires no classrooms at all (Albalawi, 2007). Therefore, many studies have been conducted in Saudi Arabia to explore different aspects of blended learning in the context of that country. These will be discussed below.

Alebaikan (2010) carried out her PhD study in King Saud University, located in the central region of Saudi Arabia. Her study aimed to achieve two main goals: to understand how Saudi female lecturers and undergraduate students experience and perceive blended learning and its future in Saudi Arabia; and to identify critical factors affecting the participants' views of the blended learning environment to enhance the educational process.

Alqahtani (2010) conducted an experimental study to investigate the effects of using e-learning and blended learning, compared to traditional learning, in the teaching of the Islamic Culture course (101) on the achievement and attitudes of students at Umm Al-Qura University in the western region of Saudi Arabia. Almalki (2011) investigated the experiences and views of this University's faculty members and undergraduate students who had participated in blended learning environments. The researcher aimed to investigate the following aspects: a) the benefits and challenges in implementing blended learning; b) the influence of blended learning and curriculum delivery designs on the communications and interactions between students and instructors; c) the advantages and disadvantages of instructor websites; d) the differences between male and female students in their perceptions of blended learning; and e) the factors that may affect the adoption of blended learning.

On the one hand, the abovementioned studies show that there was an overall positive attitude among participants toward the use of blended learning (Alebaikan, 2010;

Almalki, 2011; Alqahtani, 2010). For example, the study by Alebaikan (2010) suggests that the blended learning model, which incorporates a high percentage (70%) of online instruction, affects positively the perceptions of the participants; both the lecturers and students who participated in the study perceived blended learning as an approach that enhanced pedagogy. The lecturers appreciated the idea of using online discussions as a tool for facilitating communication and interaction.

On the other hand, there were also clear indications that blended learning in Saudi Arabia faces various challenges. For instance, three main issues were reported: the adoption of this element in the traditional university culture; finding the right instructional design; and the demands of time (Alebaikan & Troudi, 2010). Alebaikan (2010) concluded that there was a lack of pedagogical practice among both learners and instructors in the Saudi blended learning environment. Her study highlights the following. First, poor utilisation of pedagogy was reported as a significant obstacle. Second, there was limited experience of developing web-based teaching methods or student-centred strategies in face-to-face class time among the participating Saudi university lecturers. Finally, lecturers were affected by the commonly used teaching strategies in Saudi universities in which knowledge is presented in a one-way system, from lecturer to student, and there was a lack of understanding of the new role of the lecturer in blended courses as a facilitator who guides the shift from a lecturer-centred to a student-centred environment, promoting interaction and collaboration between peers in order to facilitate engagement.

A related study was carried out with two lecturers from the Department of Computer Science at universities in Saudi Arabia to investigate the readiness of learners to be engaged with e-learning, and they concluded: ‘Most of the students are good users of application software and tools but they do not have independent learning ability’ (Chanchary, 2011, p. 6). The overall findings suggest that learners at that university are almost ready from the technological aspects (i.e. 97% students are equipped with personal computers with a reliable internet connection), yet there is a lack of readiness regarding the independent learning aspect, considered an essential learning facility in a blended learning environment (Brooks, Nolan, & Gallagher, 2001; Hill & Hannafin, 1997).

Certainly, these previous studies indicate that there is still a need for further exploration of many of the pedagogical aspects of blended learning in Saudi universities, in particular the role of learners in the relatively new environment of teaching and learning. This is especially true if we consider the massive increase in the higher education sector in Saudi Arabia that has imposed many educational challenges such as delivering high quality standards of teaching and learning, different aspects of learning, and shifting the focus of assessment practice from the input to the process of learning (Darandari & Murphy, 2013). Although studies have been conducted to explore different aspects of blended learning in Saudi Arabia (Alebaikan, 2010; Almalki, 2011; Alqahtani, 2010), these have not given a comprehensive picture of the way in which learners perform in blended learning courses at Saudi universities. For instance, some were conducted to understand blended learning from the perceptions and attitudes of learners and instructors (i.e. Alebaikan, 2010; Almalki 2011), while others compared the effect on the learning achievements and outcomes of using such a learning approach with other instructional approaches (Alqahtani, 2010).

Given the importance of learners being able to regulate and manage their own learning on a blended learning course (Brooks et al., 2001; Hill & Hannafin, 1997; Orhan, 2007), I would suggest that there is still a gap in our in-depth understanding of how such learners in Saudi Arabia universities actually do so. Therefore, this research will employ the concept of self-regulated learning as a theoretical platform to understand how learners at a university in Saudi Arabia regulate and manage their own learning during a blended learning course.

In addition, since the notion of self-regulated learning is a general concept that may be applied to different learning contexts (i.e. classroom learning settings, blended learning settings and online learning settings, etc), it would have been possible to conduct this research in a traditional face-to-face setting. I decided to employ a blended learning setting because I believe that this approach is designed in such a way that it allows individuals to study at their own pace within the overall course time frame. This feature can increase the opportunities for the researcher to observe the concepts of self-regulated learning from both sides of the blended learning course, that is, the face-to-face learning part and the online learning part.

This investigation will include three main aspects of the learning process: motivation; cognitive and metacognitive; and behavioural aspects, which combine to form the concept of self-regulated learning (Pintrich et al., 1991; Zimmerman, 1986). The metacognitive aspect of self-regulated learning views the learner as a person who plans, organises, self-instructs, self-monitors and self-evaluates at various stages during the learning process, whereas the motivational aspect of self-regulated learning perceives the learner as a person who views themselves as competent, self-efficacious and autonomous. The behavioural aspect focuses on the learner being able to select, structure and create environments that optimise learning (Zimmerman, 1986). In addition, self-regulated learning is not just an event; rather, it is a series of reciprocal cognitive and active processes that work together on different elements of the information processing system (Boekaerts, 1999).

1.4 Significance of the Research

Since blended learning in Saudi Arabia is still in the early stages of implementation, this study makes a contribution to the blended learning field here, both theoretically and practically. Theoretically, this study aims to examine how learners on a blended learning course at a Saudi university actually regulate and manage their own learning from three main aspects of the learning process, namely the motivational, the cognitive and the metacognitive, and the behavioural aspects (Pintrich et al., 1991). Therefore, this study will provide specialists in blended learning in Saudi Arabia with a theoretical framework that can enhance their understanding about how individual learners act and perform on a blended learning course. Furthermore, the study operationalises the concepts of self-regulated learning by developing semi-structured interviews from the existing questionnaire (i.e. the Motivated Learning Strategies Questionnaire), which would be helpful in the field of blended learning/self-regulated learning research.

In practical terms, this study has the potential to provide decision makers at Saudi universities with insights into the critical factors that may affect individual learning performance on a blended learning course. It may provide them with recommendations on how to overcome the challenges that may hinder individual learners from being accountable for regulating their own learning. This study is significant because it is, to the best of my knowledge, the first to use a mixed methods approach to explore how

male Saudi learners regulate and manage their own learning on a blended learning course.

1.5 Purpose of the Research and the Research Questions

The main purpose of this study is to understand the way in which learners regulate their own learning on a blended learning course at King Khalid University. This includes the following sub-objectives:

1) To define the aspects of self-regulated learning that are more apparent on a blended learning course at King Khalid University.
2) To understand the way in which learners at King Khalid University motivate themselves on a blended learning course at King Khalid University
3) To understand the way in which learners at King Khalid University use their cognitive and metacognitive abilities on a blended learning course
4) To understand the way in which learners at King Khalid University manage their learning resources on a blended learning course.

The main research question underpinning this study is as follows:

How do male learners at King Khalid University regulate their own learning in a blended learning environment?

This will be addressed through the following sub-questions:

1) Which aspects of self-regulated learning are more apparent on a blended learning course?
2) How do male learners at King Khalid University motivate themselves on a blended learning course?
3) How do male learners at King Khalid University use their cognitive and metacognitive abilities on a blended learning course?
4) How do male learners at King Khalid University manage their learning resources on a blended learning course?

Chapter 2: Literature Review

The research questions highlight three main topics: the Kingdom of Saudi Arabia, blended learning and self-regulated learning. To provide information on these topics, this review consists of three main and four overlapping aspects (see Figure 1). In the first (section 2.1) I will give a general sense of where this study will be conducted, including information about the country and people of Saudi Arabia, an overview of its educational system and information regarding its higher education. In the second (section 2.2) the main learning challenges and initiatives in Saudi higher education will be introduced. In section 2.3 I will introduce the concept of blended learning as a relatively new approach for the delivery of both teaching and learning. This will consist of the following sub-sections: definitions of blended learning; the potentials and challenges of blended learning; and models of blended learning. I will introduce the use of blended learning in the context of higher education in Saudi Arabia in section 2.4; this will cover the following aspects: popularity; development; potential; and challenges.

In section 2.5 I will discuss the concept of self-regulated learning as the theoretical platform to be used in my study. This will be addressed under the following topics: self-regulated learning and learning theories; definitions of self-regulated learning; models; and components of self-regulated learning. I will present the relationship between blended learning and self-regulation from the literature in section 2.6. Finally, I will describe the conceptual framework of my study combining all the elements of the literature study in section 2.7.

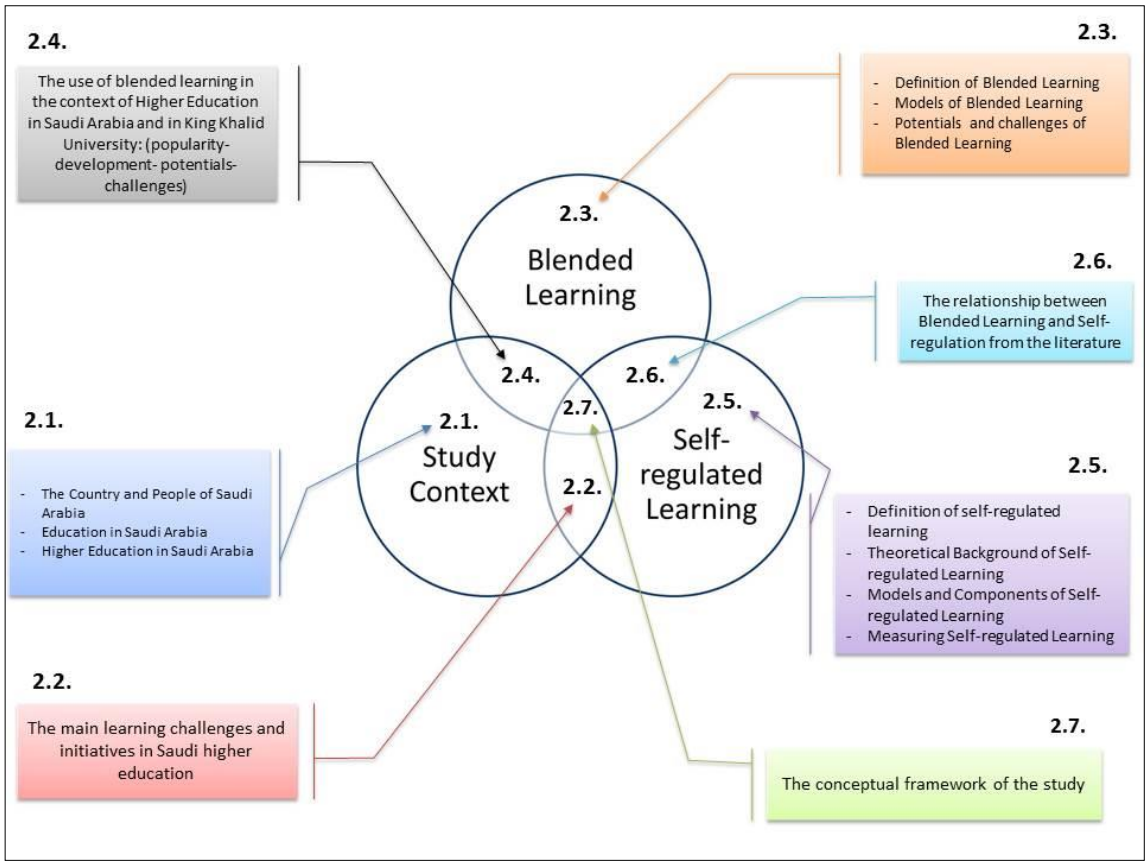

Figure 1: Three main and four overlapping aspects of the literature review

2.1 Context of the Study

To put my study into context, it is essential to give a clear idea about Saudi Arabia and its educational features. This will include the following: the country and people of Saudi Arabia; a general background to education in Saudi Arabia; higher education in Saudi Arabia; blended learning and Saudi higher education; and the blended learning courses at King Khalid University. I would expect that describing such a wide view will position my research into the larger context, so I can see what new conclusions might result from my research (Knopf, 2006).

2.1.1 Country and people of Saudi Arabia

Geography

The Kingdom of Saudi Arabia is situated in the southwest corner of Asia at the junctions of Africa and Europe, and occupies almost 80 per cent of the Arabian Peninsula (Almalki, 2011). Its area is about 2,250,000 square kilometres (868,730 square miles), with a population of 22,673,538 (CDSI, no date). The country is bordered by Kuwait in the Northeast; Jordan and Iraq in the North; the Arabian Gulf, Bahrain, Qatar and the United Arab Emirates in the East; the Yemeni Republic and the Sultanate

of Oman in the South; and the Red Sea in the West (SaudiNetwork, no date) (see Figure 2). There are 13 administrative regions (Emirates), and each includes a number of governorates, namely Makkah, Medina, Riyadh (which includes the capital), Eastern Province, Northern Province, Asir, Al-Baha, Hail, Al-Jouf, Jizan, Najran, Tabuk and Al-Qassim. In terms of area, Saudi Arabia is the largest country in the Middle East and the fourteenth largest in the world (Almalki, 2011).

Figure 2: Saudi Arabia's borders

Demographics

The people of Saudi Arabia are mainly Arab, although there are small ethnic minorities from different countries, such as Indonesians, Africans, Indians, Turks and others (Al-Ghadyan, 2004). There were no reliable figures for the overall population until 1966, when the Saudi government estimated the population to be 5,662,000. This number increased to 19,895,232 in 1999 (Al-Ghadyan, 2004). In 2005, the population numbered 22,673,538, increasing to 29,195,895 in 2012 (CDSI, no date).

With regard to the effect of population size on the educational sector, it has been suggested that its rapid growth (3.5% annually) places serious pressure on the state's budget in general and on the educational system in particular. This has been an issue in recent years, and the pressure is expected to continue as long as the educational budget is unable to meet the heightened need for education (Al-Ghadyan, 2004). This issue remains to be solved, even though a recent report indicated that the state budget for general education had more than trebled in the last thirty years (Jamjoom & Kelly, 2013). One way of dealing with such an issue is to develop e-learning technologies that offer many solutions to these problems (Al-Ghadyan, 2004).

Social and religious influences

Saudi Arabia is influenced largely by Islam; this is because it is the birthplace of Islam and contains the two Holy Mosques of Makkah and Medina, thus Saudi society and indeed all Saudis are Muslims (Alebaikan, 2010; Almalki, 2011). For legal and religious reasons, interaction between men and women who are unrelated to each other is restricted. This a general rule that applies to different social aspects including education (Alebaikan, 2010; Almalki, 2011). Therefore, it is argued that the use of e-learning would help Saudi society to provide learning and training opportunities for both men and women and keep its society conservative. As one of the male faculty members who took part in an interview about their attitudes toward e-learning and in-service training in Saudi Arabia commented:

> We are a conservative community that consider traditions and Shari'a law and will not permit the availability of common programmes for men and women together. So providing training through the internet will suit our society very much. Therefore, women can get the service at their homes or in the place of their work with no problems. (Al-Ghadyan, 2004, p. 70)

This aspect of demand is compatible with the recommendation by Jamjoom and Kelly (2013) in which they emphasised that:

> Gender-segregated universities must provide a process for course/programme moderation: in this process, course curricula, as well as results, would be moderated across both sides of the institution as well as between male/female departments and between institutions. (p. 122)

2.1.2 Education in Saudi Arabia

Administration aspects of education

The Kingdom of Saudi Arabia was founded in 1932. Initially, it was a poor country, so the educational programme consisted of only 12 schools with 700 students. After the discovery of oil in 1938, the situation changed dramatically and by 1950 there were 42,000 students attending 365 schools (Simmons & Simmons, 1994 cited inAlamri, 2011). The Ministry of Education was established in 1954 and was given the specific task of revising the national school system and giving it a modern basis similar to that in Western states (Al-Sadan, 2000). Since then, there has been a massive expansion in the number of schools and institutes, and the Ministry's budget has continued to increase until it has become one of the most important in the Kingdom (Ministry of M. o. Education, 2008).

The Ministry of Education is responsible for both boys' and girls' schooling; educational policies in Saudi Arabia, including the curriculum, syllabus and textbooks, are controlled wholly by the government (Oyaid, 2009). The administration of education is managed by two main organisations, namely the Ministry of Education and the Ministry of Higher Education (Oyaid, 2009). Further information about the context of Saudi higher education will be provided later in this section.

All schools are linked to the Ministry of Education through 42 educational districts across the Kingdom. Buildings and the organisation of construction and maintenance work are among the main responsibilities of the Ministry as well as the provision of materials, equipping schools and providing students with textbooks. The Ministry is accountable for the country's educational policy (Oyaid, 2009).

Aspects of the educational system in Saudi Arabia

Education is obligatory in Saudi Arabia for all children between the ages of 6 and 15 years. Most students go to state schools, but many public schools have been established throughout the Kingdom, particularly in the larger cities. General education is divided into four stages: a) the pre-school level is optional, for ages 3 to 6 years old; b) the primary level lasts six years for ages 6 to 12 years old; and c) and d) the intermediate and secondary levels each last for three years and students are between 12 and 15, and 15 and 18 years, respectively (Oyaid, 2009). Schools in Saudi operate five days a week

from Saturday to Wednesday. The school day starts at 8 a.m. and lasts until 2 p.m., and all students attend seven learning sessions, with each lasting around 45 minutes. Students take 20 minutes for lunch and 30 minutes for afternoon prayer every day (Al-Sadan, 2000).

The organisation of the curricula is affected by the centralised character of the educational system in Saudi Arabia. For instance, curricula are unified across the whole country and there is a curriculum department at the Ministry of Education. This department is in charge of developing the curriculum and preparing subject textbooks. These must be used by all schools in the Kingdom, including public schools. There are two semesters in every academic year, each lasting 18 weeks. At the end of the year, students are expected to prepare for examinations restricted to the content of the subject textbooks. The Ministry of Education recently changed the assessment system at primary level so that students are constantly evaluated and assessed during the academic year and do not sit a final year examination (Oyaid, 2009).

2.1.3 Higher education in Saudi Arabia

Tertiary development

Higher education in Saudi Arabia commenced in 1949, after the establishment of the College of Islamic Jurisprudence in Makkah. Later on, this college became part of the University of Umm Al-Qura, founded in 1967 (Almalki, 2011). King Saud University is the oldest university in Saudi Arabia, established in 1957 with nine lecturers and 21 students (Alebaikan, 2010). Twenty years later, six other new universities have been established:

1) Islamic University, established in 1961
2) King Fahd University for Petroleum and Minerals, established in 1963
3) King Abdul-Aziz University, established in 1967
4) Um Al-Qura University, established in 1967
5) Imam Muhammad Bin Saud Islamic University, established in 1974
6) King Faisal University, established in 1975 (Alamri, 2011).

Higher education was originally supervised by the Ministry of Education (established in 1954). As the number of universities increased, in the early 1970s there was a need to

establish a Ministry of Higher Education in Saudi Arabia (Alamri, 2011; Alebaikan, 2010). The aims of establishing the Ministry were as follows:

1) Proposing the establishment of higher educational institutions and authorising them to offer special programs in accordance with the country's needs.
2) Creating and administering universities and colleges in the Kingdom.
3) Raising the level of communication and coordination between institutions of higher learning and coordinating with other governmental ministries and agencies in terms of their interests and needs in higher education.
4) Representing the government abroad in all educational and cultural affairs, through various cultural and educational offices distributed over 32 countries. (Alamri, 2011, p. 89)

All Saudi universities are funded by the government and there are no tuition fees; furthermore, students at the higher education level are supplied by the government with a monthly remuneration ranging between SR 700 to SR 1000 (average £149, according to the exchange rate) (Almalki, 2011).

Since 2004, there has been a massive increase in the number of universities in Saudi Arabia. The following table shows the growth in the sector. There were only seven universities in 1975 (Alamri, 2011), yet by 2009 the number had increased to 21 public universities, in addition to seven private universities, making a total of 423 colleges in pure and applied fields of specialisation (M. o. H. Education, 2009). Universities expanded geographically: after covering only 16 in the previous decade, they now cover 76 provinces. This huge expansion has enabled the universities to absorb more than 200,000 new male and female students in the current academic year AH 2008/2009 (M. o. H. Education, 2009). The following table shows the percentage of growth in a number of typical colleges in the Kingdom during the period 2003 to 2009 (Ministry of Higher Education, 2009):

Table 1: Percentage growth of a number of typical colleges in the Kingdom during the period 2003–2009 (Ministry of Higher Education, 2009)

N	Specialisation	Number of current colleges	Percentage growth 2003–2009
1	Medicine and medical sciences	54	400
2	Science	27	285
3	Pharmacy	13	333
4	Computer science	18	500
5	Engineering	26	271
6	Community colleges	52	160

Higher education policy

The Ministry of Higher Education is a centralised authority accountable for university education in accordance with the adopted policy (Alamri, 2011). Policy emphasises that the purpose of education in general is to fulfil the needs of the society and to reproduce its cultural aspects and ways of living (Alebaikan, 2010). The policy has not changed since 1970 and the following is the translation of the objectives of Saudi higher education:

1) To develop the doctrine of loyalty to God, by endeavouring to provide the student with Islamic culture to be able to recognise her/his responsibilities before God for the Nation of Islam; to have valuable scientific and practical abilities.
2) To prepare highly qualified citizens who are scientifically and intellectually able to perform their duty in the service of their country and the advancement of their nation, in the light of the right doctrine and the principles of Islam.
3) To provide an opportunity for talented students in postgraduate studies of science disciplines.
4) To play a positive role in the field of scientific research, which contributes to the field of global progress in arts, science and inventions, and to find the right solutions appropriate to the requirements of life and the technological trends.
5) To promote the movement of authorship and scientific production, adapting sciences that serve the Islamic idea, to show leadership in building a civilisation on valued principles, which leads humanity to righteousness and enlightenment, and to avoid distortions of physical and atheistic beliefs.
6) To translate the knowledge of science and useful arts to the language of the Quran (Arabic), and develop the wealth of the Arabic language (terminology) to

meet the needs of Arabisation and make knowledge accessible to the largest number of citizens.

7) To implement training services and innovative studies to postgraduates who are in employment in order to introduce innovations to them. (Alebaikan, 2010)

However, there are many challenges encountered in the higher educational sector, and these will be introduced in the following section.

2.2 Learning Challenges and Reforms in the Context of Saudi Higher Education

Teaching and learning is one of the main reported challenges in higher education. There is agreement across all countries that teaching and learning in universities should be significantly improved (Alnassar & Dow, 2013). This improvement needs to come first from the university teaching staff: using more effective means of instruction; being clearer about course objectives; using small group teaching methods to promote genuine interactions with students; using now-available modern technologies effectively; and relating the assessment of students directly to course objectives (Alnassar & Dow, 2013). In addition, learners need to be more active and responsible for their own learning and need to be taught explicitly learning skills such as finding information, learning through doing, practising skills and techniques, connecting their learning and setting it in context (Alnassar & Dow, 2013). Finally, individual teachers need to be more effective in their classrooms and students need to show more confidence in their mastery of learning, both in the classroom and in their individual learning efforts outside the class (Alnassar & Dow, 2013).

In the context of Saudi higher education, many studies have affirmed that the reason for the lack of success by some students is their adoption of traditional learning methods such as memorising information to be retrieved to achieve success in their examinations (Al Dawood, 2007 cited in Alnassar & Dow, 2013). It has been concluded in studies in Saudi Arabia that teaching and learning via traditional methods has resulted in high rates of failure among university students, reportedly between 25 and 30 per cent of the total number of new students (Aljuda 1990 cited in Alnassar & Dow, 2013). Therefore, it is suggested that, in view of this lack of learning skills, if teaching staff do not develop their teaching techniques and provide learners with opportunities to enhance

their learning confidence, students will fail to adopt self-learning skills or deeper professional and cultural abilities (Alnassar & Dow, 2013). Accordingly, it is emphasised by Smith and Abouammoh (2013) that achieving high quality teaching and learning standards is one of the main challenges facing Saudi universities, and this includes students' ability to build their learning skills.

Another educational challenge in Saudi higher education is the assessment aspect. Assessment in the traditional approach concentrates on marks and grades, rather than on the actual process of learning. It links the curriculum to assessment rather than the actual process of learning. Students in higher education in Saudi Arabia come from a secondary school learning context that relies heavily on examinations as the main method of assessment. The educational policy of Saudi Arabia (1970) explains the following:

1) The year is divided into two terms
2) The total mark is divided between the two terms, 50 per cent for each term
3) Thirty per cent of the total mark is given to continuous assessment during the term (usually by periodic test)
4) Seventy per cent of the total mark is given for a written examination at the end of each term
5) The minimum pass mark is 50 per cent of the total mark in all subjects
6) The examination for all subjects is written, except for the Holy Quran, which is oral. (Al-Sadan, 2000)

Regarding Saudi universities, it is made clear that:

> With few exceptions, student assessment in Saudi universities supports a norm-referenced and summative model and has always done so. Essentially, assessment is seen as a way of rank ordering students based on what knowledge and skills they have attained by the end of their subject or programme of study. Formal testing remains the dominant way of collecting summative information in Saudi universities. (Darandari & Murphy, 2013, p. 61)

It is only in the past five years that universities in Saudi have begun to transform their traditional teacher-centred methods for assessments (primarily examinations) to a more student-centred approach, based on the outcomes rather than the input of learning

(Darandari & Murphy, 2013). Further details about the initiatives and reform efforts made by the Ministry of Higher Education will be provided later in this section.

It seems that the Ministry of Higher Education in Saudi Arabia is aware of such challenges. This can be seen from national initiatives in the field of higher education. For instance, the preparatory year established at some Saudi universities plays a significant role in preparing both male and female students for the university environment and enables them to overcome the difficulties they encounter in their study journey. During this year, specialised centres provide counselling and guidance, and educational and training programmes on study skills help students achieve success and excellence while at university (Alnassar & Dow, 2013). Students in this preparatory year are trained to use the library and learning resources, and to develop research skills, reading and listening skills, note-taking skills, and personal skills such as time management and effective communication (Alnassar & Dow, 2013).

Furthermore, the National Commission for Academic Accreditation and Assessment (NCAAA), which has responsibility for the achievement of quality standards in Saudi universities, has an essential role in national attempts to reform higher education (Smith & Abouammoh, 2013). The NCAAA is making a huge effort to shift assessment practices in higher education from the principles of behavioural theory to the constructivist theories of learning and cognitive developmental processes, a shift that requires moving toward higher-order thinking processes. This effort has been made through numerous workshops to help with university assessment processes and practices through three main stages: a focus on the development of a quality culture with respect to teaching, learning and assessment; programme mapping and course planning, with a particular focus on assessment strategies; and formal implementation of institutional assessment strategies. However, the implementation of new assessment theories is still a great challenge for higher education in Saudi Arabia (Darandari & Murphy, 2013).

The new National Qualifications Framework (NQF) in Saudi Arabia groups the kinds of learning outcomes expected of students into five domains:

1) Knowledge, which involves the ability to recall, understand and present information, including knowledge of specific facts, concepts, principles, theories and procedures
2) Cognitive skills, which include the ability to apply conceptual understanding of concepts, principles and theories, and apply procedures involved in critical thinking and creative problem solving
3) Interpersonal skills and responsibility, including the ability to take responsibility for their own learning and continuing personal and professional development, to work effectively in groups and exercise leadership when appropriate, to act responsibly in personal and professional relationships, and to act ethically and consistently with high moral standards in personal and public forums
4) Communication, information technology and numerical skills, which involve the ability to communicate effectively in oral and written form, the use of information and communications technology, and the use of basic mathematical and statistical techniques
5) Psychomotor skills, including manual dexterity, which is related to specialisations such as surgery and performing arts. (NCAAA, 2009)

To conclude, the massive increase in the higher education sector in Saudi Arabia has raised many educational challenges, such as providing high quality standards of teaching and learning, different aspects of learning and shifting the assessment practice from a focus on the input to a focus on the process of learning. Although the number of universities in Saudi Arabia adopting a blended learning approach as a way of addressing such challenges is increasing, there is a need to explore the perception of male learners on a blended learning course of their own methods of regulating their learning process (Alebaikan, 2010). Therefore, this study will attempt to contribute to the existing body of knowledge by exploring the way in which male learners on a blended learning course at one of the Saudi universities regulate their own learning. This exploratory study will include the motivational, the cognitive and metacognitive and the behavioural aspects of learners in such learning environments.

2.3 Blended Learning

2.3.1 Definition of blended learning

Advances in the use of web-based learning over the last few years have led to the emergence of the term ‘blended learning’, also called ‘hybrid learning’ or ‘mixed mode learning’ (Alebaikan, 2010). Thorne (2003) views blended learning as the most natural development of our learning agenda, since it suggests a suitable solution to the challenges of tailoring learning and development to the needs of individuals. The term is commonly used to recognise the importance of retaining face-to-face contact and other traditional approaches to support students enrolled on an online course or programme (MacDonald, 2008; Thorne, 2003). Blended learning can be perceived as a learning programme that employs more than one delivery mode with the objective of enhancing learning outcomes and reducing the cost of programme delivery (Singh & Reed, 2001).

There is no universally agreed definition of blended learning (R. Sharpe, G. Benfield, G. Roberts, & R. Francis, 2006a). For instance, Oliver and Trigwell (2005) suggest different elements that may be combined in blended learning, such as mixing e-learning with traditional learning, mixing online learning with face-to-face, mixing media, mixing theories of learning (i.e. constructivism, behaviourism and cognitivism), mixing learning objectives (i.e. blending skill-driven, attitude-driven and competency-driven learning) and mixing pedagogies. Rossett and Frazee (2006) propose that blended learning integrates what may be described as opposite approaches, such as face-to-face and online experiences, directed paths and reliance on self-direction, digital references and collegial connections, and formal and informal learning in order to achieve individual and organisational goals.

Furthermore, R. Sharpe, G. Benfield, G. Roberts, and R. Francis (2006b) identify from the literature different dimensions that may shape our understanding of the concept of blended learning:

1) Delivery—different modes (face-to-face and distance education)
2) Technology—mixtures of (web-based) technologies
3) Chronology—synchronous and asynchronous interventions
4) Locus—authentic work or practice-based versus classroom-based learning

5) Roles—multi-disciplinary or professional groupings of learners and teachers
6) Pedagogy—different pedagogical approaches
7) Focus—acknowledging different aims
8) Direction—instructor-directed versus autonomous or learner-directed learning.

The first three elements in the list (i.e. the blending of delivery mode, technologies and chronology) are related to the historical use of the term, since for many years learning courses allowed flexible scheduling by blending distance and face-to-face modes using different technologies. The next three elements in the above list (i.e. locus, roles, and pedagogy) are related to corporate training, where work-based learning is highly valuable (Sharpe et al., 2006a). Finally, the last two elements acknowledge the important role of learners in blended learning (Sharpe et al., 2006b). Sharpe et al. conclude:

> The lack of a consistent definition may be part of the term's strength as it allows staff to negotiate their own meaning for it within the context of their institution, course or student group. In terms of the dimensions of blended e-learning, protecting face-to-face teaching, designing for active learning and responding to institutional context, are all features of effective implementations. (Sharpe et al., 2006b, p. 75)

In order to connect the definition of blended learning with the context of this study I am using the definition of blended learning provided by the e-Learning Deanship at King Khalid University, as follows:

> one of the levels of using e-learning in the university in which some of the face-to-face sessions in classrooms are replaced by e-activities on the course site using the e-learning systems, tools and environment. ("Rules for e-learning at King Khalid University," 2011, p. 5)

The proportion allocated to the online learning activities from the actual teaching hours must be determined in advance at three levels: 25 per cent, 50 per cent, or 75 per cent ("Rules for e-learning at King Khalid University," 2011). This definition is consistent with that suggested by Dziuban, Hartman, and Moskal (2004) in which blended learning is the idea of combining face-to-face classroom instruction with online learning and reducing class contact hours on a learning course. Similarly, Bonk and Graham (2006) suggest that blended learning is seen as the combination of two historical separate instructional models of teaching and learning: traditional face-to-face learning systems and distributed learning systems. However, it is not just the mix of different learning

delivery modes by itself that gives blended learning its significance, but the focus on the learning outcomes (Singh & Reed, 2001); therefore, it is emphasised that:

> blended learning focuses on optimizing achievement of learning objectives by applying the 'right' learning technologies to match the 'right' personal learning style to transfer the 'right' skills to the 'right' person at the 'right' time. (Singh & Reed, 2001, p. 2)

Therefore, this study aims to explore the perceptions of male learners at one of the Saudi universities participating in delivering blended learning courses, regarding how they regulate their own learning and determining the main factors that affect their performance and learning outcomes in such a learning environment. Further explanations about the potential and limitations of blended learning will be provided in the following sub-sections.

2.3.2 The potential and limitations of blended learning

Distance technologies have provided new opportunities for higher education (MacDonald, 2008). The literature reveals many reasons for applying blended learning, namely improving pedagogy, increasing access and flexibility (Graham, 2012; Singh & Reed, 2001). This sub-section will attempt to highlight these aspects.

One of the most widely cited reasons for blending learning is the potential for more effective pedagogical practices (Graham, 2012). For instance, networks offer new ways of accessing unlimited resources on the web. A student using distance learning can avoid studying in isolation by joining other learners in an electronically supported community (MacDonald, 2008; Sharpe et al., 2006a). Such a development opens up the possibility of enhancing self-direction in learners and moving away from teacher-directed approaches to teaching and learning (MacDonald, 2008; Sharpe et al., 2006a). Learners can be encouraged to look up information by themselves rather than receiving it from their teacher. In this relatively new way of learning there is greater potential for understanding rather than just memorising learning materials (MacDonald, 2008). For instance, in a qualitative case study focusing on the experience of 16 students undertaking the Business Communication module within their Executive Diploma in Organizational Leadership in Manufacturing Management at the Executive Development Centre University Utara Malaysia, students reported high satisfaction with the instructor interaction. They indicated that the sound design of the course—clearly

defined objectives, assignments and deadlines, and the promotion of dialogue and interaction—was critical to their satisfaction with the course and that blended learning offered them a chance to lead discussions and to share with others (Dzakiria, A.Wahab, & Rahman, 2012).

Although many learners prefer the convenience of a distributed learning environment, at the same time they do not want to lose the advantage of the human factor of face-to-face learning environments (Graham, Allen, & Ure, 2005). Blended learning is perceived as a suitable way of learning that combines the two factors (Graham et al., 2005). Usually learners do not have the ability to understand the entire lecture in a traditional class, so have to wait until their next class for clarification. In contrast, blended learning gives learners the ability to continue making inquiries about any issue that was not clear initially (Hijazi, Crowley, Smith, & Shaffer, 2006). A clear and consistent finding from the study conducted by Dzakiria et al. (2012) is the satisfaction level of students using this approach in teaching and learning. Students appreciate the flexibility and convenience, and the perceived increase in interaction that they have in blended learning.

However, one of the main challenges when adopting a blended learning approach is how students actually make choices about the kinds of blends that they participate in and what type and amount of guidance should be provided to learners when making their choice (Graham, 2012). Further, the teacher and the students need to understand the collaborative nature of the new learning approach so that they can achieve a balance and so that motivation to learn will continue (Dzakiria et al., 2012). Finally, given the autonomous aspect of blended learning, learners are not always given the immediate feedback that they enjoy in face-to-face interaction in a traditional setting (Dzakiria et al., 2012). One of the main aims of this study is to provide practitioners and decision makers in Saudi Arabia with a clear image about how male learners at a Saudi university act and perform on a blended learning course, as well as to highlight the main factors that affect their learning performance.

2.3.3 Models of blended learning

In higher education, blended learning is becoming a popular model as a relatively new approach to teaching and learning. Mixing face-to-face learning with information technologies is not the only condition for effective teaching and efficient solutions for

learning. It is important to build on solid learning theory and pedagogical strategies (Hadjerrouit, 2008). In the context of higher education there is no single model that can suit all disciplines and all institutions. Blended learning in practice depends on different factors and the needs of the individual, the discipline or the organisation (Chew, 2009). Because this study is about understanding the learning behaviour and motivations of learners on a blended learning course, I will provide in this sub-section three models that have attempted to illustrate the way in which blended learning works from the perspective of learners.

The five-stage e-moderation model

Salmon (2000) model is driven by Maslow hierarchy of needs (1943) (Figure 3), in which he suggests that the aim of education and development is to help learners to achieve self-actualisation and to fulfil their potential of personal growth (McFadzean, 2001). Learners will feel loved, as well as having a sense of belonging to their learning community through social interaction (Chew, 2009).

Accordingly, Salmon (2000) model includes five stages. In the first, the key element is motivation and accessibility for all learners. At this stage, e-moderators should provide an interesting introduction about the use of the technological platform as well as considering all the attitudes to using technology and meeting new participants through the online environment. In the second stage, the emphasis is on the social aspect, in which socialisation with peers and the e-moderator is the essential activity. Learners in this phase familiarise themselves with each other and build bridges between cultural and social barriers. Information at the third stage will start to flow if the bridges are successfully built. Instead of just reading from the online materials, the individual will be stimulated to interact with the e-moderator and their peers. At this stage, the sense of belonging to the community may increase. By stage four, the learners will begin constructing the knowledge and helping each other in the process of their learning. At this stage, the personal strength and knowledge of the individual learners will develop and they will take control of their own knowledge and learning, while the e-moderators will facilitate the learning process and encourage the group's communication. At the fifth and final stage, learners will be more responsible for their own learning and for their group. They will also be critical and self-reflective. Eventually, they will be more confident regarding reflection and assessment and will achieve self-actualisation.

Although e-moderation is an interesting attempt to build a framework for online learning based on educational theory, the model has been criticised as face-to-face learning is not evident in the later levels, although clearly present at the first stage, and it would be a challenging task to implement such a model in traditional universities with their emphasis on a face-to-face classroom (Chew, 2009).

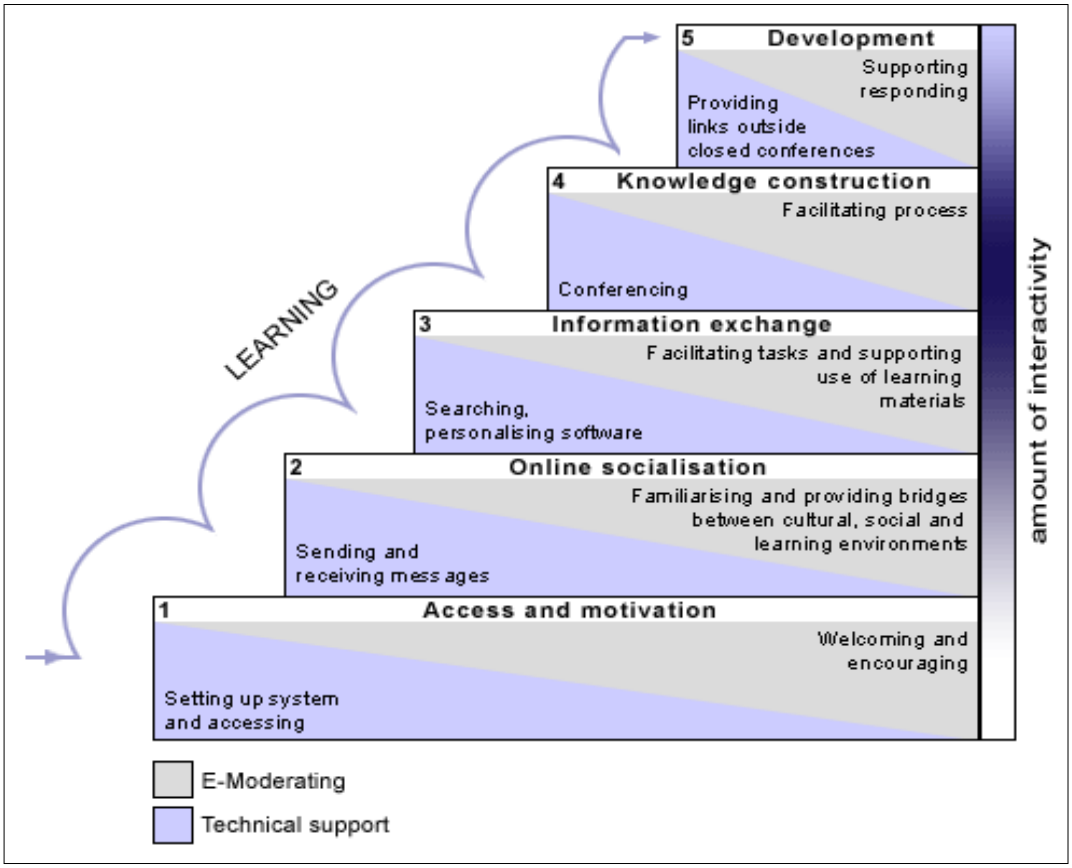

Figure 3: E-moderation (Salmon, 2000)

Blended learning model at the Open University of Malaysia (OUM)

Blended learning in the Open University Malaysia consists of three different but complimentary delivery modes, as shown in Figure 4: self-managed learning (SML); face-to-face interaction; and online learning (Ali & Bahroom, 2008; Kaur & Ahmed, 2006). SML is built upon specially constructed and printed modules supported via CD-ROM courseware and digital content. Learners are advised to spend at least two hours using SML per day. In the face-to-face learning mode, the learners have the chance to interact with peers and educators. The online learning mode should complement the first mode (i.e. SML) and the second mode (i.e. face-to-face learning) to create an effective and collaborative learning support.

Kaur and Ahmed (2006) emphasise that SML is the most vital part of the model, more important than the other two modes. Completing SML requires high levels of self-initiative and independent study in the learners. Accordingly, self-discipline is a core requirement in this model (Chew, 2009). However, the blended learning model at OUM focuses on combining the space and educational technology rather than the learning development and lacks a theoretical basis (Chew, 2009). This model suggests that it is the educator's responsibility to establish conditions such as the CD-ROM courseware and learning objects in online learning; they should promote an outstanding learning experience for learners (Chew, 2009). Issues such as maintaining SML and the inflexibility of changing learning objectives may arise (Chew, 2009).

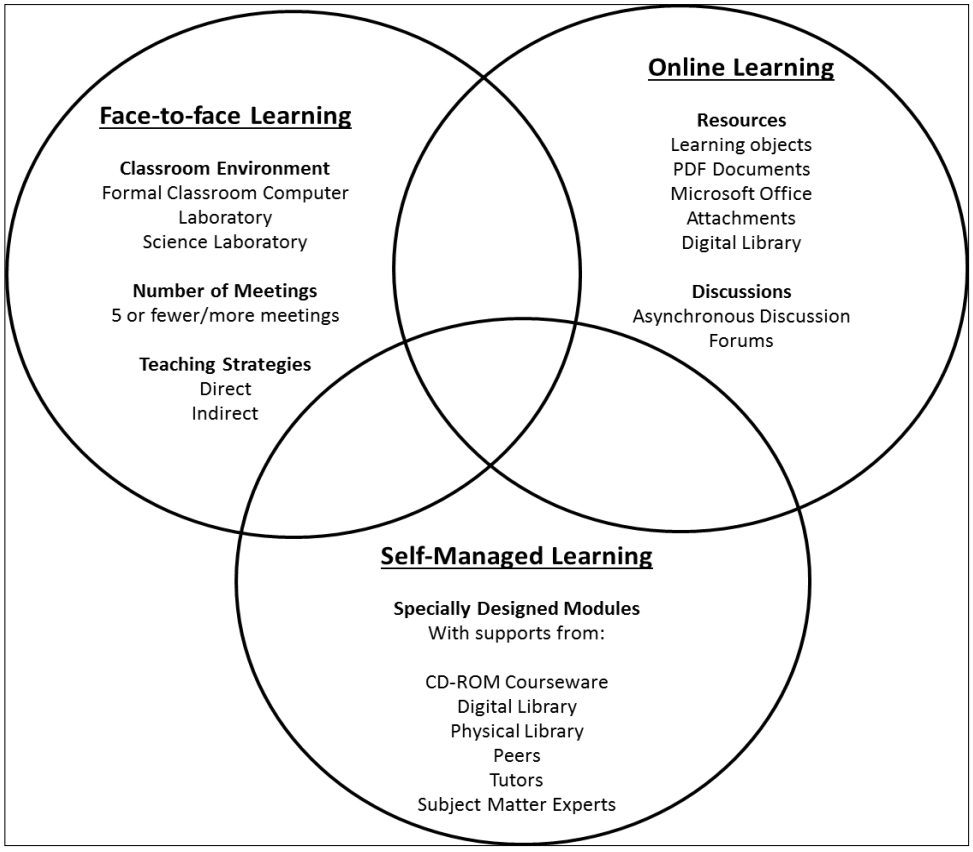

Figure 4: Blended learning model (Kaur & Ahmed, 2006)

The framework for Community of Inquiry (CoI)

This is the third model, developed by Garrison and Vaughan (2008) as a framework for Community of Inquiry (CoI) guide to online and face-to-face learning and teaching. They suggest a blended learning design that considers and maximises two essential elements that cannot be separated in any meaningful educational experience: reflection and discourse (Garrison & Vaughan, 2008). This mix may be achieved by integrating

thoughtful online learning and face-to-face learning that promotes better reflection and discourse, or fundamentally rethinking the learning and teaching that enhances students' engagement. The CoI framework is based on Dewey's idea of constructivism. Garrison and Vaughan (2008) acknowledge Dewey in the way that education is seen as more than just memorising or seeking final answers. Rather, it is an operational process that investigates problems and issues. They believe that establishing a collaborative constructivist approach that focuses on inquiry is the ideal route for learning, and they assert that knowledge is shaped and constructed by social interaction and collaboration.

Figure 5 illustrates the three core elements of the CoI framework: social presence, cognitive presence and teaching presence. These shape a recursive model in which each supports the others. First, social presence represents a group communication that facilitates collaborative learning. It establishes a sense of belonging that enhances learning inquiry, and it is responsible for creating critical discourse and reflection (Garrison, Anderson, & Archer, 2001). Second, cognitive presence consists of information exchange, connections of ideas, and the creation and testing of concepts. It is functionalised through the practical inquiry cycle. This includes the triggering event, exploration, integration and resolution (Garrison et al., 2001). Garrison and Vaughan (2008) emphasise that the educational challenge is to move the learning process through all four stages of the inquiry process to ensure a successful outcome (Garrison et al., 2001). Third, teaching presence includes two main functions: creating a suitable structure and process for learning and teaching, and developing the quality design for the educational process (Garrison & Vaughan, 2008). It recognises the role of every learner in creating and maintaining an effective learning community (Garrison et al., 2001). The authors believe that the educational experience will be enhanced when all of the three elements occur together and complement each other (Garrison & Vaughan, 2008). The categories and indicators for CoI are presented in the following table.

Table 2: Community of Inquiry categories and indicators (Garrison & Vaughan, 2008)

Elements	Categories	Indicators (examples only)
social presence	open communication group cohesion affective/personal	enabling risk-free expression encouraging collaboration expressing emotions camaraderie
cognitive presence	trigger event exploration integration resolution	having sense of puzzlement exchanging information connecting ideas applying new ideas
teaching presence	design and organising facilitation of discourse direct instruction	setting curriculum and methods sharing personal meaning focusing discussion

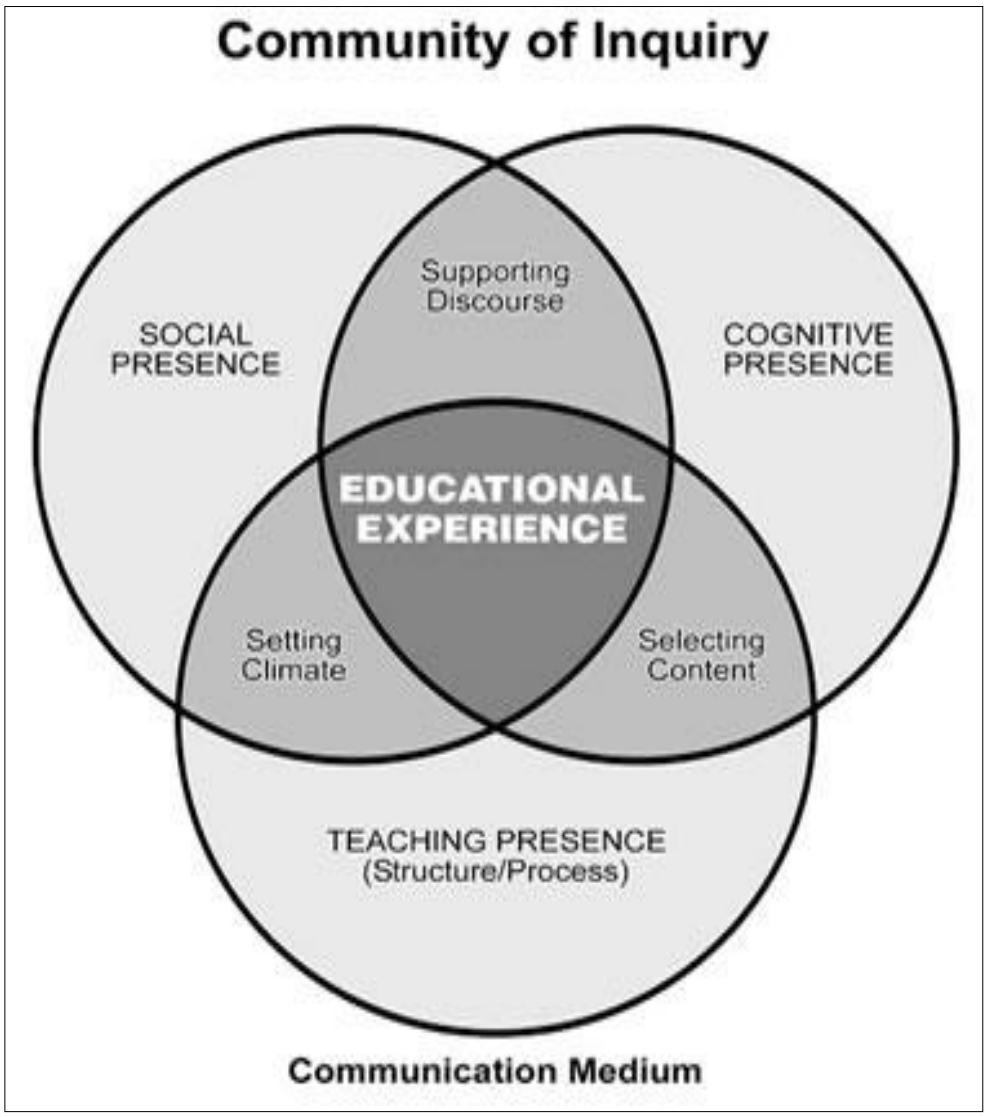

Figure 5: Three core elements of the Col framework (Garrison & Vaughan, 2008)

Shea and Bidjerano (2010) examined the CoI framework (Garrison & Vaughan, 2008) and suggest that the model may be developed into a more complete model that considers the role of the learner in online courses. They present the outcomes of their study, conducted among 3,165 students on online and hybrid courses from 42 two- and four-year institutions, in which they examined the relationship between learner self-efficacy measures and their ratings of the quality of their learning in virtual environments. They conclude that there was a positive relationship between the elements of the CoI framework, and between the elements that they suggest are a necessary construct for the framework, which they label as 'learning presence' (Figure 6). Furthermore, they suggest that such additional constructs (i.e. learner presence) represent elements that support online learner self-regulation, which includes the following aspects: self-efficacy, cognitive, behavioural, and motivational. They conclude their study by saying:

> The current study opens doors for new lines of research. Clearly, there's a need for greater understanding of the role of motivational and self-regulatory factors that may shape each individual student's experiences in the online learning environment. We suggest that these metacognitive, motivational, and behavioral traits of active online students can be understood as learning presence. We conclude that additional research investigating online learner self-efficacy and the broader construct of online learner self-regulation is needed. (Shea & Bidjerano, 2010, p. 1728)

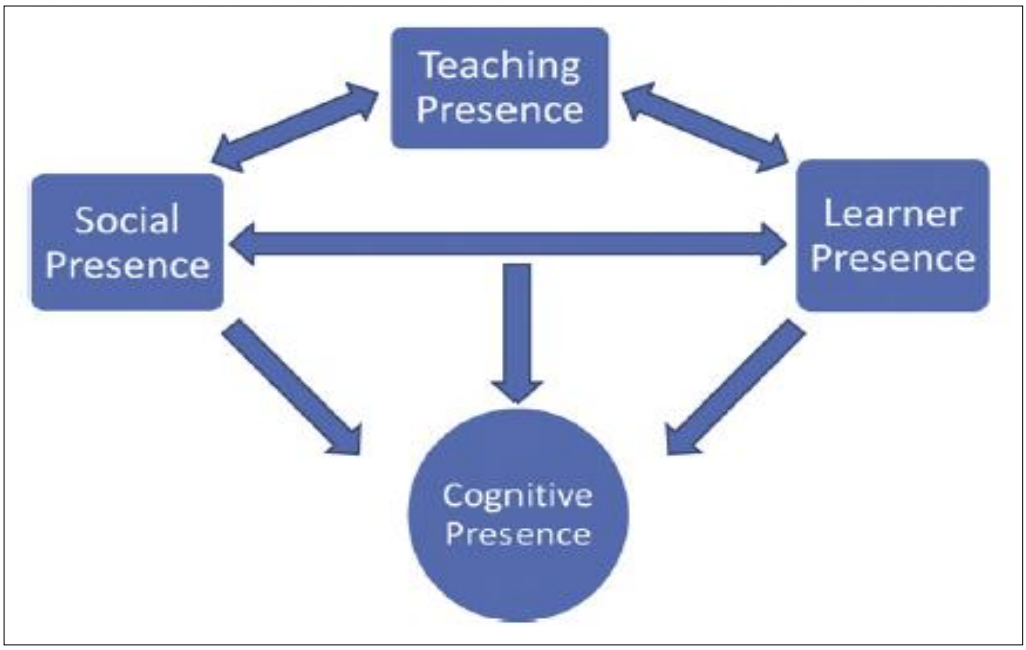

Figure 6: Revised Community of Inquiry model including 'learner presence' (Shea & Bidjerano, 2010)

Indeed, the previous three models (the five-stage e-moderation, the OUM and the CoI) have in common an emphasis on the crucial role of the learner being independent in their own learning process in blended learning environments. For illustration, Salmon's model (i.e. the five-stage e-moderation model), was built upon the ideas of Maslow (1943) that emphasise that the main purpose of education is helping the learner to achieve self-actualisation and support their ability for personal growth (McFadzean, 2001). In Salmon's model, it is clear that the position of learners on a blended learning course develops gradually toward the fifth stage, in which the learner becomes more independent in their own learning process. The same can be perceived from the blended learning model at the OUM, in which the concept of SML is the most essential part of the model (Kaur & Ahmed, 2006). Finally, the developed version of the CoI, by Shea and Bidjerano (2010), is based on the idea of considering the important role of the learner in online courses. The authors conclude that adding the additional constructs (i.e. learner presence) to the model is essential (Shea & Bidjerano, 2010). Accordingly, Oliver and Trigwell (2005) suggest that it is better to consider the learner's perspective in order to develop a consistent theoretical framework to understand the concept of blended learning. However, implementing e-learning on its own is inadequate to solve the problems that students encounter, therefore further effort is needed to understand more about how individuals experience and cope with their engagement in formal education (Holley & Oliver, 2009).

It is argued that in Saudi Arabia, as independent learning skills are required for blended learning, the concern is whether, for example, learners in pre-university education have the ability to cope with blended learning environments (Alebaikan, 2010). Since this study is about exploring the way in which male learners at King Khalid University regulate their own learning on a blended learning course using a mixed methods approach, it meets the recommendation by Alebaikan (2010): 'Investigation of students' performance in blended courses using quantitative and confirmatory studies is recommended' (pp. 267–268). In addition, the blended learning environment consists of four main presences, according to Garrison and Vaughan (2008) and Shea and Bidjerano (2010). This study will focus on the learner presence from three main aspects: motivation, cognitive and metacognitive and the behavioural aspects (Figure 7).

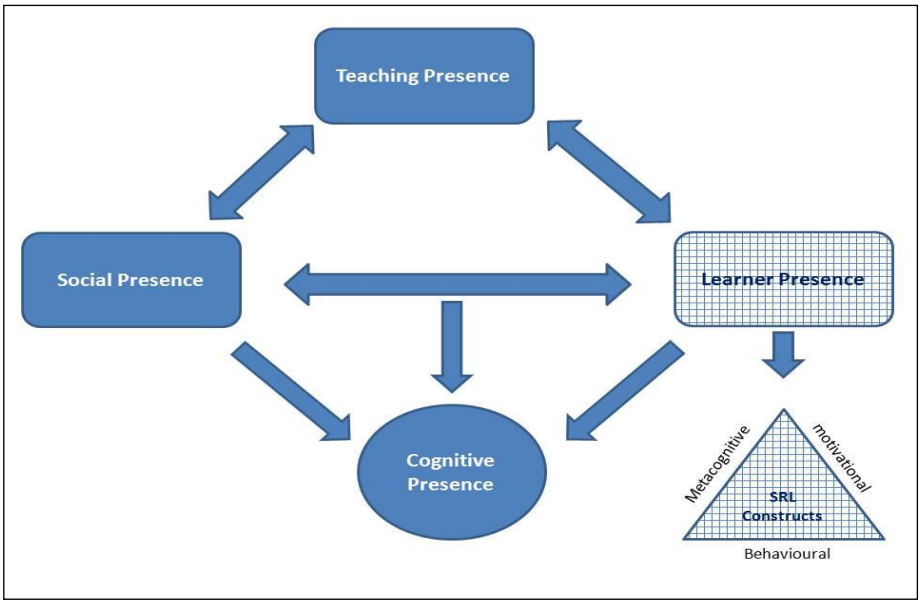

Figure 7: Exploratory aspects of this study

2.4 Blended Learning and Saudi Higher Education

Online learning has been proposed for Saudi universities as an effective way to provide learning and teaching experiences to students and, as mentioned previously, as a way to reach the large number of expected students, available at any time and anywhere (Albalawi, 2007). Therefore, the ELC was established by the Saudi Ministry of Higher Education to guide the change and to prepare e-learning material (Al-Dosari, 2011). The number of universities that have agreed to integrate the e-learning system with the traditional system of education has increased since then (Al-Dosari, 2011), but it has been emphasised that the introduction of this teaching and learning has forced Saudi universities to move from formal classroom training and education to one that does not require classrooms at all (Albalawi, 2007; Alebaikan, 2010). This will include changing from teacher-centred-learning to learner-centred learning, and to consider learners' requirements according to their needs, interests and abilities, and to tailor learning to their pace (Algahtani, 2011).

To investigate the effect of such a shift, many studies have been conducted in Saudi Arabia that explore different aspects of blended learning (Alebaikan, 2010; Almalki, 2011; Alqahtani, 2010). From their outcomes, it is clear that students and instructors have an overall positive attitude to blended learning (Alebaikan, 2010; Almalki, 2011; Alqahtani, 2010). It is also clear that in Saudi Arabia the approach faces issues such as a need to adapt to the traditional university culture and to find the right instructional

design, under constraints of time (Alebaikan & Troudi, 2010). It is concluded that blended learning in Saudi Arabia is a challenge to the pedagogical practices of both learners and instructors (Alebaikan, 2010). Alebaikan's study first identifies poor utilisation of blended pedagogy as a significant obstacle. Second, there is only limited experience in developing web-based teaching methods or student-centred strategies in face-to-face class time among the Saudi university lecturers who participated in the study. Finally, there is little understanding of the new role of the lecturer in blended courses as a facilitator of the shift from a lecturer-centred to student-centred environment and as promoter of interaction and collaboration between peers. This last is to facilitate engagement and to explicate how lectures are affected by the common teaching strategies in Saudi universities in which knowledge is presented as a one-way system, from lecturer to students (Alebaikan, 2010).

Indeed, previous research emphasises that there is a need for further investigation into the pedagogical aspects of blended learning environments in Saudi universities, such as the role of learners in the new approach to teaching and learning. Therefore, I suggest that there is still a need for in-depth understanding of how male learners in blended learning courses at Saudi Arabia universities regulate and manage their own learning.

I anticipate that building my study on these three aspects (i.e. motivation, cognitive and metacognitive, and behaviour) will give the advantage of a holistic and coherent image of how male learners at King Khalid University actually regulate their own learning mentally, emotionally and operationally. The mental aspect will be reflected by understanding the type of cognitive and metacognitive activities that male learners adopt in blended learning courses in Saudi Arabia. An emotional aspect will be gleaned from understanding how students perceive themselves as independent learners in blended learning courses in Saudi Arabia. Finally, the operational aspect will be achieved by understanding how male learners behave when learning independently in blended learning courses in Saudi Arabia.

2.5 Self-regulated Learning

2.5.1 Self-regulated learning and learning theories

Self-regulated learning is a self-oriented process that cannot be interpreted from behaviourist learning theory (Eggen & Kauchak, 2010). Behaviourists perceive learning

as a process shaped by external factors rather than by the characteristics of the individual learner (Austin, Orcutt, & Rosso, 2001). Behaviourism suggests that the learning of desired behaviours will occur when stimuli from their external environment recognise and reinforce the behaviour positively; and, the opposite, undesired behaviours can be controlled or eliminated by an absence of attention (Cbraziel et al., 2006). Self-regulated learning is viewed as a self-oriented process in which learners transform their mental abilities into academic skills (Zimmerman, 2002).

Regarding the compatibility of self-regulated learning and constructivist learning theory (i.e. cognitive and social cognitive), it is assumed that self-regulated learners are active participants in their own learning process metacognitively, motivationally and behaviourally (Zimmerman, 1986). The metacognitive aspect of self-regulated learning views learners as people who plan, organise, self-instruct, self-monitor and self-evaluate at various stages during the learning process. The motivational aspect of self-regulated learning perceives the learner as a person who views themselves as competent, self-efficacious and autonomous. The behavioural aspect of self-regulated learning focuses on the learner being able to select, structure and create environments that optimise learning (Zimmerman, 1986). It is suggested that self-regulated learning is not just an event, but a series of reciprocally related cognitive and active processes that work together on different elements of the information processing system (Boekaerts, 1999).

These aspects of self-regulated learning are compatible with constructivist learning theories that emphasise four central characteristics about learning: 1) learners construct their own learning; 2) new learning mostly depends on students' existing understanding; 3) social interaction plays a critical role; and 4) authentic learning tasks are important for meaningful learning (Applefield, Huber, & Moallem, 2001). It is emphasised that, according to Piaget's learning theory, the learning environment should support an active, discovery-oriented type of learning (Driscoll, 2000). Furthermore, instructional design should adapt strategies that make children aware of conflicts and inconsistencies in their thinking (Driscoll, 2000).

For my research, I am using the framework of Pintrich et al. (1991), so both the behaviourist and the constructivist learning theory can be connected to the underlying paradigm from different perspectives. To illustrate, according to Pintrich et al. (1991) the motivational aspect of their framework includes the concept of extrinsic goal

orientation. This is perceived as an aspect that complements intrinsic goal orientation and refers to the degree to which a learner perceives themself to be participating in a task for external reasons such as grades, rewards, performance, evaluation by others or competition (Pintrich et al., 1991).

With respect to constructive learning theory, Pintrich et al. (1991) framework involves various aspects that perceive learners as active in constructing their own learning. For example, the cognitive and metacognitive aspect of self-regulated learning perceives students as using strategies such as activating information in their working memory (i.e. the rehearsal strategy), as well as using elaboration to store information into long-term memory by building internal connections between items to be learned (Pintrich et al., 1991). In addition, the learning resource management of Pintrich et al. (1991) sees the learner as actively managing their learning resources (i.e. time and study environment, effort regulation, peer learning and help seeking). I would suggest that using both theoretical frameworks provides me with a basic understanding of how individuals behave, cognitively and socially, during the learning process in a blended learning environment.

2.5.2 Definition of self-regulated learning

Self-regulated learning is a concept that attempts to explain academic learning and the achievement of learners in terms of the various characteristics and processes that individuals use to regulate their own behaviour (Brokenshire, 2007). It is more than just a mental ability or an academic performance skill; rather, it is a self-oriented process in which learners transform their mental abilities into academic skills (Zimmerman, 2002). The definition of self-regulated learning and the processes it involves differs according to the researcher’s theoretical orientation (Zimmerman, 1990). For instance, Boekaerts (1999) suggests that self-regulated learning is situated at the junction of many different research fields, namely research on learning styles, research on metacognition and regulation styles and theories of the self, including goal-directed behaviour. He suggests that these three areas of research have shaped our understanding of such a concept (Boekaerts, 1999). A common definition of self-regulated learning among researchers is the concept of learners being active in their own learning process metacognitively, motivationally and behaviourally (Zimmerman, 1986, 1990; Zumbrunn, Tadlock, & Roberts, 2011).

The motivational aspect of self-regulated learning perceives the learner as a person who views themself as competent, self-efficacious and autonomous (Zimmerman, 1986). Further, the metacognitive aspect of self-regulated learning involves what learners know about their own learning (Henderson, 1986). It views a learner as a person who plans, organises, self-instructs, self-monitors and self-evaluates at various stages during the learning process (Zimmerman, 1986). Finally, the behavioural aspect focuses on the learner being able to select, structure and create environments that optimise learning (Kadhiravan & Suresh, 2008; Zimmerman, 1986). It perceives a learner as a person who seeks out advice, information and places to help them learn (Zimmerman, 1990).

Boekaerts (1999) suggests that there is almost a consensus among researchers that self-regulated learners may be distinguished in many ways from those who rely largely on external regulation. For instance, there are two main principles that distinguish self-regulated learners from others: they are aware about the essential relationship between regulatory processes and the learning outcomes, and they employ these strategies to accomplish their academic goals (Zimmerman, 1990). Montalvo and Torres (2008) identify from the literature that students who self-regulate their own learning differ from those who do not in various ways:

1) They are aware of how to use a series of cognitive strategies such as repetition, elaboration and organisation to accomplish, transform, organise, elaborate, and recover information.
2) They know how to guide their mental processes toward the attainment of personal goals.
3) They demonstrate a number of motivational beliefs such as high level of academic self-efficacy and the adoption of learning goals as well as the ability to adjust these beliefs to the requirements of the task and of the specific learning situation.
4) They have the ability to plan and manage their time and effort to be used on tasks, as well as the awareness of how to create effective learning environments to study in, and when they encounter any difficulties in their learning, they seek help from others such as teacher and students.

5) They participate effectively, when required, in the control and regulation of academic tasks, classroom atmosphere and structure such as the design of class assignments and organisation of work teams.
6) When performing academic tasks, they can adapt a series of volitional strategies that avoid external and internal distractions in order to continue their focus, effort and motivation (pp. 3–4).

An investigation into students' performance on blended courses in Saudi Arabia is recommended (Alebaikan, 2010). Therefore, I am using self-regulated learning as a powerful concept that allows researchers first to illustrate the different components of a successful learning process and, second, to explain the reciprocal relationship among the different components to connect learning and achievement directly to the self, which involves one's goal structure, motivation and emotion (Boekaerts, 1999).

2.5.3 Models and components of self-regulated learning

This sub-section will deal with five different models that attempt to illustrate the main components of self-regulated learning as well as the way in which they function. The models were formulated by Boekaerts, Borkowski, Pintrich, Winne and Zimmerman, respectively. Although there are many other self-regulated learning models, these five have been developed considerably during the past decade and there are several empirical studies in their support (Puustinen & Pulkkinen, 2001). After this, I will compare these models according to four aspects: background theories, definitions of self-regulated learning, components included in the models and empirical work. Finally, I will explain and justify the model that I adopt for my study.

Boekaerts' model of adaptable learning

Boekaerts (1992, 1995, 1996a, 1996b) introduced a model of learning in the classroom that can be considered as an appraisal with an essential role in the self-regulated learning process. The appraisal is influenced via three kinds of information that interact dynamically through an internal working model together with motivational factors, namely, perception of the learning situation, domain-specific metacognitive knowledge and the self-system. Appraisals are suggested to be important in leading the student's behaviour in the classroom. For instance, positive-charged appraisals will have a positive effect on expanding a student's personal resources. In contrast, negative-

charged appraisals are claimed to cause ego protection that aims to prevent a loss of resources and well-being. Adaptable, self-regulated learning is defined as a balance between these two types of path (Puustinen & Pulkkinen, 2001).

Later, this idea of adaptable learning was developed further and Boekaerts and Niemivirta (2000) emphasised the necessary interaction among the self-regulated learning components (e.g. metacognitive, motivational and emotional). This led to the identification of important conditions necessary for self-regulated learning: optimal conditions describe a situation where the opportunity for learning and the felt necessity for learning are combined. It is suggested that self-set actions for learning and engagement are a natural process in optimal conditions (Puustinen & Pulkkinen, 2001).

The extended model by Boekaerts and Niemivirta (2000) is based on goal processes. These processes involve the identification, interpretation and appraisal of the learning situation, which in turn lead to goal setting and goal striving. Identification refers to the knowledge of the task, the instructions and the physical and social context. Interpretations involve the personal and internal reference (i.e. metacognitive knowledge or motivational beliefs) that lead to different interpretations of the same learning situation by different students. For example, if the interpretations are task-focused it means that the internal reference is based on metacognitive knowledge, whereas when the interpretations are self-focused the internal reference is self-related. Finally, appraisals are classified into primary and secondary appraisals. Primary appraisals are about the learner's concern with whether the learning situation is neutral or threatening. The next stage of the self-regulated learning process consists of setting goals then striving for these goals; this, in turn, feeds back to metacognitive knowledge or motivational beliefs (Puustinen & Pulkkinen, 2001).

Two overall scenarios may be drawn, based on the previous description (see Figure 8). First, in habitual, frequently repeated learning situations, there is a fast processing pattern starting with situation identification, through to primary appraisals and directly to goal striving. Second, there is a reaction to learning situations that demand consciousness and deliberation. All the elements in the model are involved: identification, interpretation, primary and secondary appraisal, goal setting and goal striving. The goal setting will be based on the interpretations of the learning situation as either task- or self-focused and the nature of the goal striving (i.e. positive or negative

and problem- or emotion-focused) will be determined. Problem-focused goal striving is expected to feed back to metacognitive knowledge, whereas emotion-focused goal striving is expected to feed back to motivational beliefs (Puustinen & Pulkkinen, 2001).

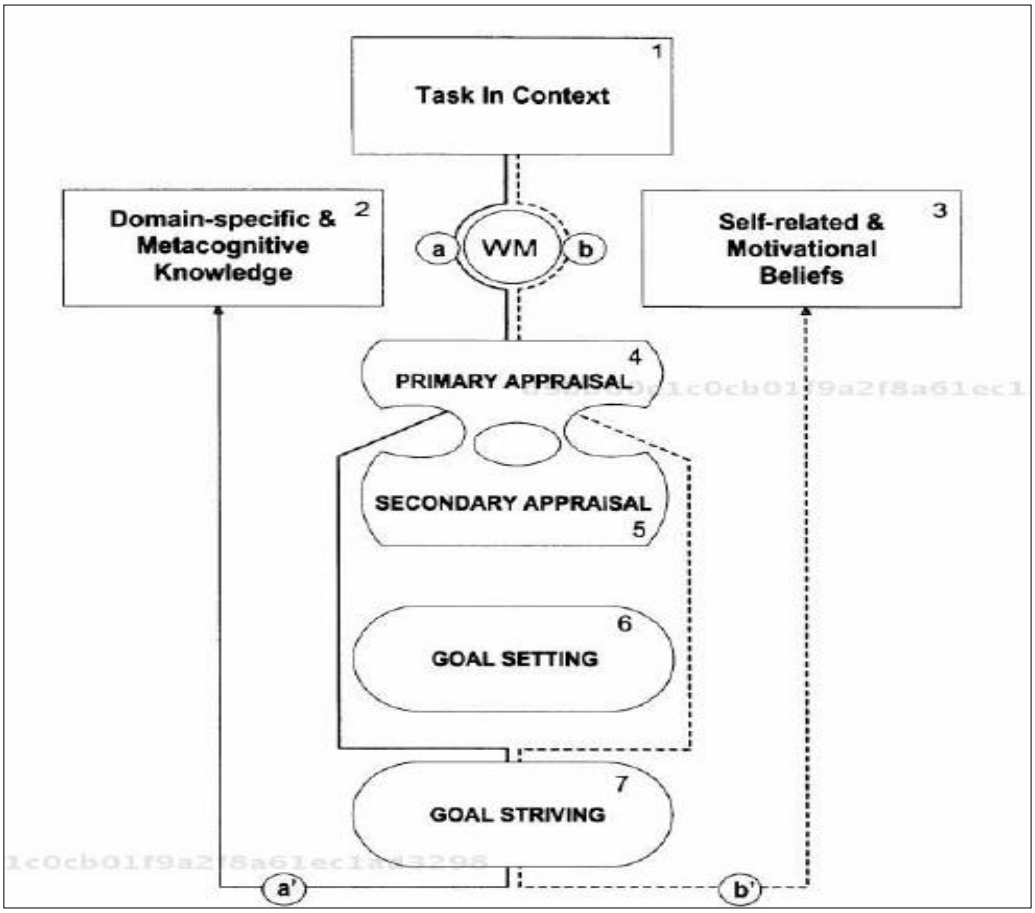

Figure 8: Boekaerts' model of adaptable learning (Boekaerts & Niemivirta, 2000)

Borkowski's process-oriented model of metacognition

Borkowski (1996) suggested that self-regulated learning develops when children are being taught learning strategies. Gradually, children will identify the attributions of a learning strategy and by the time they learn other strategies they will be able to apply these to different situations to enrich the specific strategy knowledge available to them. Self-regulated learning starts when students are able to choose a suitable learning strategy and monitor their own performance. As the child becomes more aware of the importance of behaving strategically, the perceptions of self-efficacy and attribution beliefs develop as well, so strategy use will be linked to their personal and motivational state. Important cognitive actions should be followed by feedback about success or failure and its causes. This feedback is important to shape the personal–motivational conditions which, in turn, improve the capacity for future strategy selection.

Accordingly, the child's general knowledge about the world and domain-specific knowledge develops. Finally, the model includes a self-system of task orientation, self-worth, possible selves and learning goals (Puustinen & Pulkkinen, 2001).

Winne's four-stage model of self-regulated learning

According to Winne's model, self-regulated learning comprises five important phases: conditioning; operating; producing; evaluating; and standardising (Winne & Hadwin, 1998). Conditioning refers to the information gathered about the task conditions such as time limits, available resources and social context, and cognitive conditions such as interest, goal orientation and task knowledge that influence how the task will be engaged. Operating refers to the cognitive processes, tactics and strategies that students apply when faced with a task. Producing is about the information generated via operations in transforming conditions, so different products are created at different stages. Evaluating includes both internal and external feedback from the products. Finally, standardising refers to the elements in which the products are monitored (Winne & Hadwin, 1998). A central aspect of Winne's model is metacognitive monitoring, creating internal feedback about the differences between products and standards at each stage and serving as a ground for further action. This model has been criticised because, even if the learning process proceeds from Stage 1 to Stage 4, it is acknowledged that the system is weakly sequenced and that, consequently, different patterns may also exist (Puustinen & Pulkkinen, 2001).

Zimmerman's social cognitive model of self-regulation

According to Zimmerman's model (1990; Zimmerman, 2000), self-regulated learning involves three kinds of determinants, namely covert personal, behavioural and environmental events. These are viewed as separable yet at the same time interdependent factors that affect individual performance. Covert self-regulation refers to the ability to monitor and adjust cognitive and affective conditions. Behavioural self-regulation contains strategic self-observation and adjusting performance processes. Finally, environmental self-regulation includes the ability to observe and to adjust the environmental conditions (Puustinen & Pulkkinen, 2001). Zimmerman (2000) holds that self-regulated learning is cyclical in nature and consists of the following three phases: a forethought phase; a performance phase; and a self-reflection phase (see Figure 9).

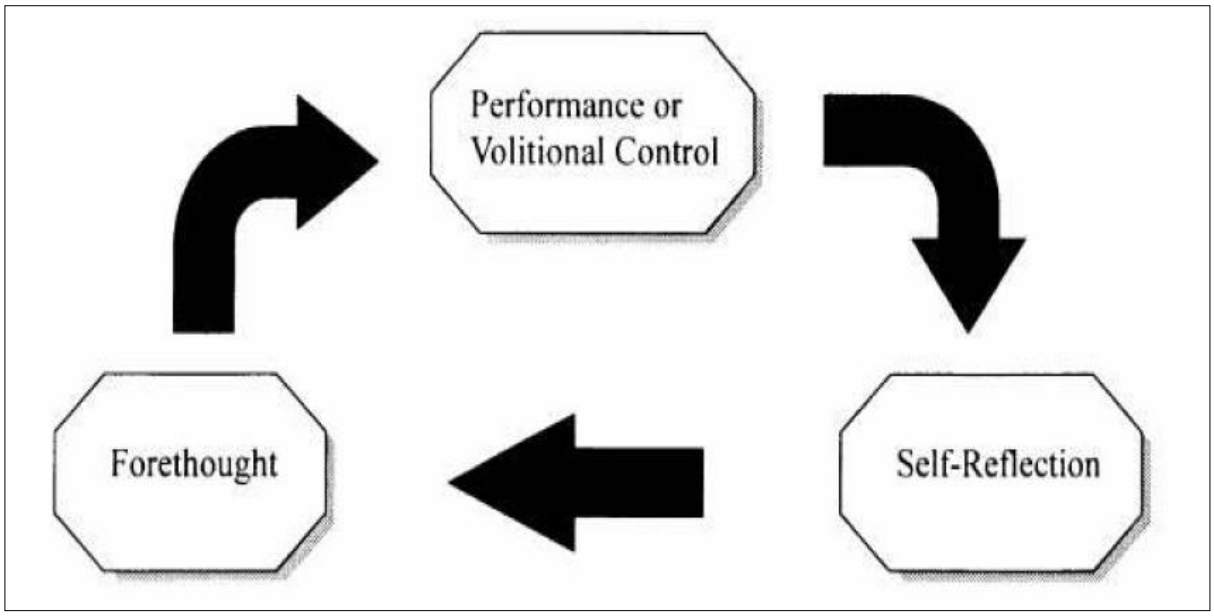

Figure 9: Cyclical phases of self-regulation (Zimmerman, 2000)

The forethought phase is about the idea of preparing for action. Two kinds of processes are included: task analysis, such as goal setting and strategic planning; and processes related to self-motivation beliefs such as self-efficacy, outcome expectations, intrinsic motivation or valuing and process versus outcome goal orientation. The performance phase consists of two kinds of processes: self-control processes and self-observation. Self-control processes include, for instance, self-instruction, imagery or the forming of mental pictures, whereas self-observation includes, for example, self-recording and self-experimentation. The purpose of the self-control processes is to reduce the task to its basic components and reorganise them in a meaningful manner, while the purpose of self-observation processes is to trace one's own performance. The self-reflection phase involves two groups of processes, namely self-judgement and self-reaction, both related to self-observation. Self-judgement is about evaluating one's own performance and the factors that contribute to the results, while self-reaction refers to self-satisfaction in relation to the result and what should be done in future situations that demand self-regulation. Because of the cyclical nature of self-regulation, this phase (i.e. self-reflection) would influence the forethought processes (Zimmerman, 2000).

Pintrich's general framework for self-regulated learning

Pintrich's (2000) work on self-regulated learning is distinguished by one overarching theme: attempting to integrate the motivational constructs in self-regulated learning. According to Pintrich (2000) 'framework', self-regulated learning consists of four

phases, namely forethought, monitoring, control and reflection. The forethought phase involves activities that include: a) cognitive areas such as prior content knowledge and metacognitive knowledge activation; b) motivation and affect areas, such as efficacy judgements and the adoption of a goal orientation; c) behaviour areas, such as time and effort planning; and d) context areas, such as perceptions of task and context. The monitoring phase includes the learner being aware of and monitoring their cognition, motivation, affect, time use, effort and task and context conditions. The control activities refer to the idea of selecting and adapting strategies for regulating efforts and task negotiation, which include managing learning, thinking, motivation and affect. Finally, the reflection phase is about cognitive judgements, affective reactions and evaluation of choices, task and context. This framework is presented as a guide and does not suggest that all academic learning necessarily involves explicit self-regulation (Puustinen & Pulkkinen, 2001) (see Figure 10). This study will adopt this model to address the research aim and questions. Further justification of the reasons for choosing this model will be provided later in this section.

	Areas for regulation			
Phases and relevant scales	Cognition	Motivation/Affect	Behavior	Context
Phase 1				
Forethought, planning, and activation	Target goal setting	Goal orientation adoption	Time and effort planning	Perceptions of task
	Prior content knowledge activation	Efficacy judgments	Planning for self-observations of behavior	Perceptions of context
	Metacognitive knowledge activation	Perceptions of task difficulty Task value activation Interest activation		
Phase 2				
Monitoring	Metacognitive awareness and monitoring of cognition	Awareness and monitoring of motivation and affect	Awareness and monitoring of effort, time use, need for help Self-observation of behavior	Monitoring changing task and context conditions
Phase 3				
Control	Selection and adaptation of cognitive strategies for learning, thinking	Selection and adaptation of strategies for managing, motivation, and affect	Increase/decrease effort	Change or renegotiate task
			Persist, give up Help-seeking behavior	Change or leave context
Phase 4				
Reaction and reflection	Cognitive judgments	Affective reactions	Choice behavior	Evaluation of task
	Attributions	Attributions		Evaluation of context
Relevant MSLQ Scales	Rehearsal Elaboration Organization Critical Thinking Metacognition	Intrinsic Goals Extrinsic Goals Task Value Control Beliefs Self-Efficacy Test Anxiety	Effort Regulation Help-Seeking Time/Study Environment	Peer Learning Time/Study Environment

Figure 10: Phases and areas for self-regulated learning (Pintrich, 2000)

Comparison of the models

Puustinen and Pulkkinen (2001) conducted a comparison of these models based on four criteria: the background theories of the authors, the definitions of self-regulated learning, the components included in the models and the empirical research conducted by the authors. From the point of view of underlying theories, Borkowski's model is based on an information processing perspective and the metacognitive research tradition. Zimmerman's and Pintrich's models, in contrast, are based on social cognitive theory, underlining social foundations of thinking and behaviour. Boekaerts' model reflects both Kuhl's action control theory (1985) and Lazarus and Folkman's transactional stress theory (1984). Finally, Winne's model is based more on a heterogeneous theoretical background (Puustinen & Pulkkinen, 2001).

Regarding the definitions of self-regulated learning, two kinds of definitions may be perceived from the models. First, Boekaerts (1992), Pintrich (2000) and Zimmerman (2000) define self-regulated learning as a goal-oriented process; they agree on the constructive nature of self-regulated learning and that the monitoring, regulating and controlling of the learning processes by learners is not only a cognitive process but involves motivational, emotional and social factors. Borkowski (1996) and Winne and Hadwin (1998), in contrast, define self-regulated learning as a metacognitive process that strives to adopt the use of cognitive strategies to tasks (Puustinen & Pulkkinen, 2001). Puustinen and Pulkkinen (2001) also conclude that differences between definitions become unclear when the models are examined in detail. For instance, although neither Borkowski (1996) nor Winne and Hadwin (1998) incorporate goal orientation in their definition, both assume self-regulated learners to be intrinsically motivated and goal-oriented. Both Borkowski and Winne agree on motivational, emotional and social factors as well as a cognitive factor (Puustinen & Pulkkinen, 2001).

All authors agree that the processes of self-regulated learning start with a preparatory phase and continue to an evaluation or adaption phase. They assume also that the self-regulated learning process is cyclical in nature and that the evaluation phase affects preparatory processes. Despite the similarity of certain aspects of the models, there are differences. For example, Winne's model assumes that metacognitive monitoring in self-regulated learning is recursive and provides feedback during all phases of self-

regulated learning, whereas others suggest that mentoring takes place during the performance phase and feedback in the appraisal phase (Puustinen & Pulkkinen, 2001).

In relation to the empirical research, two major directions seem to be clear, namely a motivation orientation and a strategy orientation. Boekaerts (1992) and Pintrich (2000) may be considered to be motivationally oriented in their research. They explore the relationship between motivational factors and academic achievement, and develop a questionnaire that assesses both the motivational and cognitive aspects influencing students' learning. There are differences in the kind of variables they include in their study. For instance, Boekaerts (1992) places more emphasis on appraisals as a mediating factor with children, while Pintrich (2000) examines the effect of more variables, such as classroom autonomy and discipline and learning strategy, on college students' motivation and achievement (Puustinen & Pulkkinen, 2001).

Borkowski (1996) and Winne and Hadwin (1998) work is mainly strategy-oriented. Borkowski (1996), for example, compares the effectiveness of different strategy instruction methods for children, providing formal instruction that enhances strategy use and performance. Winne applies a trace methodology to examine the relationship between university students' self-reports in comparison to the actual study strategies that they use. Finally, Zimmerman's (2000) study is classified as both motivation- and strategy-oriented. The motivational aspect of his study includes his work on self-efficacy and his strategy-oriented research involves a structured interview that he developed and used to test students' use of learning strategies. He concludes that there is a correlation between learning strategy and self-efficacy (Puustinen & Pulkkinen, 2001). Further illustration and justification of the model to be used in this study will be introduced later in the conceptual framework section.

Further information about measuring self-regulated learning, using mixed methods in the context of self-regulated learning research, using the Motivated Strategies for Learning Questionnaire (MSLQ), and using interviews in the context of self-regulated learning research will be provided in the methodology chapter.

2.6 Blended Learning Environments and Self-regulation

This section will deal with the relationship between the concept of self-regulated learning and blended learning, and how this relationship appears in the literature. An introduction is appropriate, in the form of a statement made by Brooks et al. (2001, p. 155):

> Students who are poor in self-regulation easily can be 'slaughtered' in web-based courses. On the web, if your students are not self-regulated, how can you hope for success?

Many studies indicate that students who do not have the ability to regulate their learning in such environments encounter difficulties in the learning process. For instance, Azevedo and Cromley (2004) refer to the following difficulties from the literature:

> students have difficulties regulating aspects of their cognitive system (e.g. failure to activate relevant prior knowledge), difficulties regulating features of the hypermedia (e.g. coordination of and access to multiple representations of information, determination of an adequate instructional sequence), and difficulties regulating the mediation of learning processes (e.g. lack of planning and creation of sub-goals, failure to engage in metacognitive monitoring of their emerging understanding of the topic, use of ineffective strategies). (p. 524)

Although the millions of learners taking an online course may find it attractive for more than one reason, such as the asynchronous nature of these courses (Hodges, 2005), it is argued that once they have enrolled they will experience some kind of isolation in relation to the course (Hodges, 2005). Therefore, many principles are suggested to encourage self-regulation in web-based education. For example, it is emphasised that instructors should focus on content mastery rather than task mastery. This can be achieved by explicitly linking an assignment, for example, to content mastery and explicitly illustrating the relationship (Brooks et al., 2001). Brookes et al. encourage instructors to increase students' awareness of their own self-regulation, and they indicate the use of journals as one of the most popular ways adopted by teachers (Brooks et al., 2001).

When comparing the ways in which individuals perceive and process information in conventional versus open-ended learning environments (OELEs), it is suggested that traditional learning activities may encourage 'compliant' thinking, which is widely

managed externally by teachers (Hill & Hannafin, 1997). This creates significant challenges for OELEs that require exploration and learner-centred thinking (Hill & Hannafin, 1997). In addition, OELEs provide the chance to access (and encourage such access to) a huge range of resources in a variety of formats, and applying traditional methods may engender generations of learners who are less-prepared for OELEs, where learners are required to control their learning independently (Hill & Hannafin, 1997). In hypermedia environments, learners are exposed to a large amount of information structured in a non-linear fashion and represented in different forms such as text, graphics, animation, audio and video (Azevedo & Cromley, 2004). In such environments, learners need to analyse the learning situation; to set meaningful learning objectives, deciding which strategy to use and assessing the effectiveness of these strategies to meet the learning goals; and to evaluate their initial understanding of a learning topic. In general, they need to be able to monitor their understanding while adjusting their plans, goals, strategies and effort in relation to the cognitive, motivational and task conditions. Accordingly, it is argued that if learners do not regulate their learning, the hypermedia environments may prove to be ineffective (Azevedo & Cromley, 2004). In many cases, to be successful in online courses learners need to depend on their individual abilities to direct their learning and strive toward accomplishing tasks to given deadlines. So learners will need to adopt self-regulated learning strategies (Hodges, 2005).

Although research on self-regulation and web-based learning is developing, the outcomes from those studies are complemented by the outcomes established in more traditional learning environments, that is, that self-regulation is an essential skill for learners to achieve success (Hodges, 2005). For instance, (Orhan, 2007) used different self-regulated strategies such as self-evaluation, appreciating classmates' criticisms of their work and monitoring their work by comparing it with that of other students in class. None of his participants had had any previous experience in taking blended learning. The study was conducted during one semester with 74 university students (28 males and 46 females) participating in the study. By the end, students reported success in the blended learning environment from the perspective of academic achievement and from the perspective of improving the use of self-regulated strategies (Orhan, 2007). Participants in that course became more confident about and responsible for their own learning. They noticed that the effort they had made to study had had a positive effect

on their learning and the study concluded that using blended learning appears to be an effective way when trying to implement self-regulation strategies(Orhan, 2007).

A study conducted by Hill and Hannafin (1997) concluded that students who reported more prior knowledge of the subject or more confidence in using the World Wide Web used more self-regulation strategies than the students lacking in those aspects. They emphasised that monitoring learning in a web-based environment was a critical skill to gain (Hill & Hannafin, 1997). Similarly, Whipp and Chiarelli (2004) found that successful learners on a web-based course adopted self-regulatory strategies during their study for that course. For example, students on that course kept up with the course by planning a daily logon to the course. This was classified as monitoring, goal setting or planning activity (Whipp & Chiarelli, 2004). Shih and Gamon (2001) explored the relationships between learners' motivation, attitude, learning styles and achievement on a web-based course. They found that motivation was the only aspect strongly related to achievement. Azevedo and Cromley (2004) conducted a study among college students to explore their ability to regulate their learning in a hypermedia environment (i.e. the learning materials in the course are associated with hyperlinks (Hwang, 2014) studying the human circulatory system. The outcomes from their study revealed that students who reflected an increase in their knowledge were those who regulated their learning with certain strategies, such as setting goals, monitoring their learning and planning.

Although some of these studies were not conducted in the context of blended learning, they still share the principle that emphasises the importance of students regulating their learning in online learning courses. In this study, I will conduct mixed methods research to explore the ways in which male learners regulate their own learning on a blended learning course at one of the universities in Saudi Arabia, as suggested by Alebaikan (2010). Further explanation and justification will be provided later in the methdology chapter.

2.7 Conceptual Framework of Study

Jabareen (2009, p. 51) defines a conceptual framework as '"a network" or "a plane" of interlinked concepts that together provide a comprehensive understanding of a phenomenon or phenomena'. In this sub-section I will illustrate the conceptual framework for the current study. Having given an overview of the literature about the

three main elements of this study, the three elements are synthesised in the following conceptual framework (Figure 11).

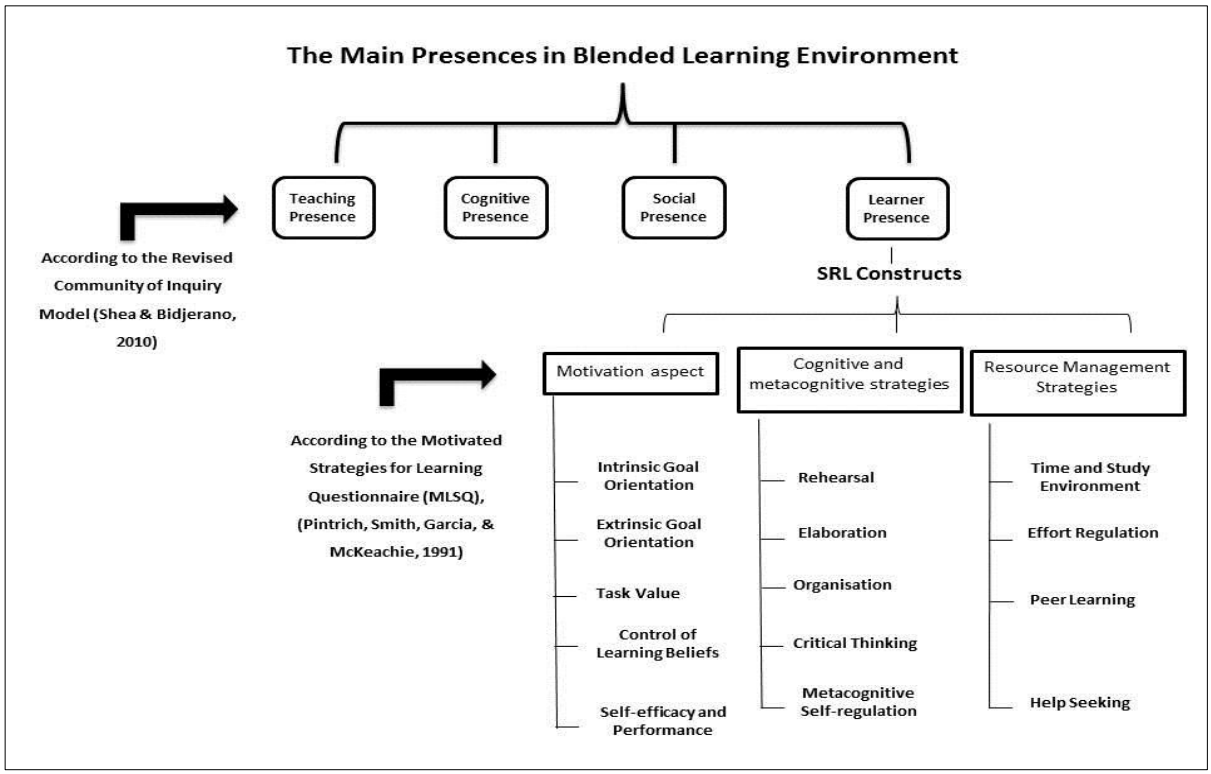

Figure 11: Conceptual Framework of Study

2.7.1 Definition of blended learning in this study

In order to describe the concept of blended learning in the context of this study, I use the definition provided by the E-Learning Deanship at King Khalid:

> one of the levels of using e-learning in the University in which some of the face-to face sessions in classrooms are replaced by e-activities on the course site using the e-learning systems, tools and environment ("Rules for e-learning at King Khalid University," 2011, p. 5)

This choice is based on more than one reason. First, since this study will be conducted in one of the blended learning courses at King Khalid University, it is crucial to choose a definition with which its learning community (i.e. learners, instructors and staff) is familiar. Second, this definition must be compatible with other definitions from the literature, such as those suggested by Dziuban et al. (2004) that regard blended learning as the idea of combining face-to-face classroom instruction with online learning and reducing the class contact hours on a learning course. Similarly, Bonk and Graham (2006) suggest that blended learning should be seen as the combination of two historical separate instructional models of teaching and learning: traditional face-to-face learning

systems and distributed learning systems. However, designing a blended learning course is not just about combining face-to-face learning with online learning; rather, it involves maximising two essential elements that cannot be separated in any meaningful educational experience, namely reflection and discourse (Garrison & Vaughan, 2008). Therefore, Garrison and Vaughan have developed a framework that can help in understanding the main presences in a blended learning environment (i.e. the framework for CoI) (Garrison & Vaughan, 2008). Further illustration of the framework and how it relates to my conceptual framework will be provided in the following sub-section.

2.7.2 A blended learning environment based on the Community of Inquiry (CoI) framework

As illustrated previously, the three core elements of the CoI framework are social presence, cognitive presence and teaching presence. These elements shape a recursive model in which each element supports the others:

1) Social presence represents group communication that facilitates collaborative learning. It establishes a sense of belonging that enhances learning inquiry and is responsible for creating critical discourse and reflection.
2) Cognitive presence consists of information exchange, connections of ideas, and the creation and testing of the concepts. It is implemented through the practical inquiry cycle.
3) Teaching presence includes two main functions: creating a suitable structure and process for learning and teaching, and developing the quality design for the educational process (Garrison & Vaughan, 2008).
4) (Shea and Bidjerano (2010)) suggest that the model may be improved by considering the role of the learner in online courses. They examined the CoI framework (Garrison & Vaughan, 2008). Furthermore, they suggest that such a construct represents elements supporting online learner self-regulation, which include self-efficacy, cognitive, behavioural, and motivational.

This study will be limited to the learner presence suggested by (Shea & Bidjerano, 2010) for the following reasons: first, this study aims to understand the perceptions of learners on how they regulate their learning on one of the blended learning courses at King Khalid University; Second, it is concluded that ‘additional research investigating online learner self-efficacy and the broader construct of online learner self-regulation is

needed' (Shea & Bidjerano, 2010, p. 1728). Therefore, I am focusing on the learner presence on a blended learning course to explore three main constructs of male learners on such a course at King Khalid University, namely the motivational, the cognitive and the metacognitive and the behavioural constructs (Pintrich et al., 1991) (Figure 11). Further explanation of the definitions of these constructs will be provided in the following sub-section.

2.7.3 The Motivated Strategies for the Learning Questionnaire (MSLQ)

As mentioned previously, the MSLQ is a self-report instrument developed by Pintrich et al. (1991). It comprises two sections, namely motivation and learning strategies (Yusri, Rahimi, Shah, & Wah, 2011). The motivation aspect of the questionnaire includes five sub-scales: intrinsic goal orientation, extrinsic goal orientation, task value, control of learning belief, and self-efficacy and performance. The learning strategies aspects of the questionnaire consist of a cognitive and a metacognitive strategies component that includes sub-scales of rehearsal, elaboration, organisation, critical thinking and metacognitive self-regulation, and a resource management strategies component that includes the sub-scales of time and study environment, effort regulation, peer learning and help seeking. Further information about the definitions of these sub-scales is given in Tables 3–5.

According to Zimmerman (2008), 'the motivation section, the cognitive-metacognitive section, and the resource management strategy section correspond to the three elements in the definition of self-regulated learning: motivation, metacognition, and behaviour' (p. 168). Therefore, I use these three elements (i.e. the motivation, the cognitive-metacognitive and the resource management strategy) to connect the concept of self-regulated learning with the four research sub-questions.

This study will employ Pintrich's (2000) general framework for self-regulated learning for the following reasons. First, this research is related to social cognitive theory, unlike cognitive learning theory (Piaget's learning theory), and emphasises that learning is about the role not only of inner speech in the learning of concepts but the adults' and the learners' peers as they converse, question, explain and negotiate meaning (Driscoll, 2000). Although all models are driven by the constructivist learning theory, Zimmerman's and Pintrich's models are based more on social cognitive theory, underlining the social foundations of thinking and behaviour (Puustinen & Pulkkinen,

2001). Despite the fact that many questionnaires have been based on some of these models, such as Boekaerts' and Pintrich's, the MSLQ (Pintrich et al., 1991) has been adopted by hundreds of studies all over the world (Artino, 2005; Duncan & McKeachie, 2005), and its validation has generally been adequate (Taylor, 2012).

Furthermore, only Pintrich's (2000) model has a manual that illustrates the use of the questionnaire (Pintrich et al., 1991); this makes it convenient and easy to manage for the researcher. In addition, the questionnaire developed by Pintrich et al. (1991) includes more variables than other questionnaires such as the questionnaire based on Boekaerts' model that has only classroom autonomy and discipline, and learning strategy (Puustinen & Pulkkinen, 2001). This feature would be compatible with the holistic nature of this study, conducted to understand the perception of male learners about how to regulate their own learning on a blended learning course at King Khalid University. This understanding will be based on the concept of self-regulated learning that involves three main aspects: motivation, cognitive and metacognitve and behavioural aspects of male learners on a blended learning course (Pintrich et al., 1991). Further details on the questionnaire (i.e. its potentials and limitations) will be provided in the methodology chapter.

2.7.4 Research questions in relation to the conceptual framework

In this sub-section I will connect the research's main and sub-questions to the conceptual framework of the study. First, this study aims to explore the perception of male learners at King Khalid University about the way in which they regulate their own learning on a blended learning course. This aim will be achieved by addressing the main research question:

> **How do learners at King Khalid University regulate their own learning on a blended learning course?**

Second, because this study is supported by Pintrich's (2000) general framework for self-regulated learning, I will use the MSLQ by Pintrich et al. (1991). As mentioned previously, this consists of two main sections, namely the motivation section and the learning strategies section that has sub-sections: the cognitive and metacognitive, and learning resources management. Therefore, the main research question will be addressed by answering the following sub-questions:

1) Which aspects of self-regulated learning are more apparent on a blended learning course?
2) How do male learners at King Khalid University motivate themselves on a blended learning course?
3) How do male learners at King Khalid University use their cognitive and metacognitive abilities on a blended learning course?
4) How do male learners at King Khalid University manage their learning resources on a blended learning course?

The purpose of Tables 3–5 is to define the terminology of the constructs and sub-scales of the three main aspects of self-regulated learning according to the MSLQ framework by Pintrich et al. (1991).

Table 3: Definitions of the motivational sub-scales

Aspect	Sub-scale	Explanatory Notes[1]
The motivation aspect	**Intrinsic goal orientation**	Intrinsic goal orientation refers to students' perception of the reasons why they are engaging in a learning task. On the MSLQ, goal orientation refers to students' general goals or orientation to the course as a whole. Intrinsic goal orientation concerns the degree to which students perceive themselves to be participating in a task for reasons such as challenge, curiosity, or mastery. Having an intrinsic goal orientation toward an academic task indicates that the student's participation in the task is an end in itself, rather than participation being a means to an end.
	Extrinsic goal orientation	Extrinsic goal orientation complements intrinsic goal orientation, and concerns the degree to which students perceive themselves to be participating in a task for reasons such as grades, rewards, performance, evaluation by others, or competition. When one is high in extrinsic goal orientation, engaging in a learning task is the means to an end. The main concern the student has is related to issues that are not directly related to participating in the task itself (such as grades, rewards, comparing one's performance to that of others). Again, this refers to the general orientation to the course as a whole.
	Task value	Task value differs from goal orientation in that task value refers to the student's evaluation of how interesting, how important and how useful the talk is ('What do I think of this task?'). Goal orientation refers to the reasons why the student is participating in the task ('Why am I doing this?'). High task value should lead to more involvement in one's learning. On the MSLQ, task value refers to students' perceptions of the course material in terms of interest, importance and utility.
	Control of learning beliefs	Control of learning refers to students' beliefs that their efforts to learn will result in positive outcomes. It concerns the belief that outcomes are contingent on one's own effort, in contrast to external factors, such as the teacher. If students believe that their efforts to study make a difference in their learning, they should be more likely to study more strategically and effectively. That is, if the students feel that they can control their academic performance, they are more likely to put forth what is needed strategically to effect the desired changes.
	Expectancy	Expectancy for success refers to performance expectations and relates specifically to task performance.
	Self-efficacy	Self-efficacy is a self-appraisal of one's ability to master a task. Self-efficacy includes judgements about one's ability to accomplish a task as well as one's confidence in one's skills to perform that task.
	Test anxiety (the worry component)	Test anxiety has been found to be negatively related to expectancies as well as to academic performance. Test anxiety is thought to have two components: a worry, or cognitive component and an emotionality component. The worry component refers to students' negative thoughts that disrupt performance.
	Test anxiety (the emotionality component)	The emotionality component refers to affective and physiological arousal aspects of anxiety.

1) According to (Pintrich et al., 1991)

Table 4: Definitions of the cognitive and metacognitive strategies scales

Strategy	Sub-scale	Explanatory Notes[2]
Cognitive and metacognitive strategies	**Rehearsal**	Basic rehearsal strategies involve reciting or naming items from a list to be learned. These strategies are best used for simple tasks and activation of information in working memory rather than acquisition of new information in long-term memory. These strategies are assumed to influence the attention and encoding processes, but they do not appear to help students construct internal connections among the information or integrate the information with prior knowledge.
	Elaboration	Elaboration strategies help students store information into long-term memory by building internal connections between items to be learned. Elaboration strategies include paraphrasing, summarising, creating analogies and generative note taking. These help the learner integrate and connect new information with prior knowledge.
	Organisation	Organisation strategies help the learner select appropriate information and also construct connections among the information to be learned. Examples of organising strategies are clustering, outlining and selecting the main idea in reading passages. Organising is an active, effortful endeavour and results in the learner being closely involved in the task. This should result in better performance.
	Critical thinking	Critical thinking refers to the degree to which students report applying previous knowledge to new situations in order to solve problems, reach decisions, or make critical evaluations with respect to standards of excellence.
	Metacognitive self-regulation	This includes three main activities: planning, monitoring and regulating. Planning activities such as goal setting and task analysis help to activate, or prime, relevant aspects of prior knowledge that make organising and comprehending the material easier. Monitoring activities include tracking of one's attention as one reads and self-testing and questioning: these assist the learner in understanding the material and integrating it with prior knowledge. Regulating refers to the fine-tuning and continuous adjustment of one's cognitive activities. Regulating activities are assumed to improve performance by assisting learners in checking and correcting their behaviour as they proceed on a task.

2) According to (Pintrich et al., 1991).

Table 5: Definitions of resource management strategies scales

Strategy	Sub-scale	Explanatory Notes3
Resource management strategies	**Time and study environment**	Time management involves scheduling, planning and managing one's study time. This includes not only setting aside blocks of time to study, but the effective use of that study time and setting realistic goals. Time management varies in level, from an evening of studying to weekly and monthly scheduling. Study environment management refers to the setting where the student does their class work. Ideally, the learner's study environment should be organised, quiet and relatively free of visual and auditory distractions.
	Effort regulation	Self-regulation also includes students' ability to control their effort and attention in the face of distractions and uninteresting tasks. Effort management is self-management and reflects a commitment to completing one's study goals, even when there are difficulties or distractions. Effort management is important to academic success because it not only signifies goal commitment, but also regulates the continued use of learning strategies.
	Peer learning	Collaborating with one's peers has been found to have positive effects on achievement. Dialogue with peers can help a learner clarify course material and reach insights they may not attain on their own.
	Help seeking	Another aspect of the environment that the student must learn to manage is the support of others. This includes both peers and instructors. Good students know when they do not know something and are able to identify someone to provide them with some assistance. There is a large body of research that indicates that peer help, peer tutoring and individual teacher assistance facilitate student achievement.

3) According to (Pintrich et al., 1991).

2.8 Summary of Literature Review

In this chapter I have covered the literature relevant to this study from six main and interrelated perspectives: a) the context of the study; b) the blended learning approach; and c) the concept of self-regulated learning. Interrelated perspectives are: d) the blended learning approach and the concept of self-regulated learning; e) the blended learning approach and Saudi higher education; and f) the challenges and initiatives in developing the role of learners in the context of Saudi higher education. The conceptual framework is based on the outcomes from these perspectives and includes: the definition of blended learning in the context of my study; the blended learning presence focus of this study according to the framework of the CoI; the MSLQ; and the research questions according to the conceptual framework.

To draw an overall conclusion from the first chapter, it is clear that Saudi Arabia is experiencing an enormous increase in demand in the higher education sector. This imposes the challenge of providing access for all students, across the country, to a high standard level of teaching and learning. One clear response is the massive growth in the number of universities in Saudi Arabia adopting online and blended learning approaches to absorb the high level of demand. Although many studies have recently been conducted to investigate different aspects of the blended learning approach in the context of Saudi Arabia's higher education, none gives a comprehensive picture of learner presence in this learning environment.

This study is conducted to explore how male learners regulate and manage their own learning on a blended learning course at a university in Saudi Arabia. The study adopts Pintrich et al. (1991) 'framework', whereby the investigation will involve the following main aspects of the learner: motivational; cognitive and metacognitive; and learning resource management (Pintrich et al., 1991). Moreover, it will adopt a mixed method approach whereby the research main and sub-questions will be addressed both quantitatively and qualitatively. Further description of the research methodology will be presented in the following chapter.

Chapter 3: Methodology

This chapter presents a detailed description of the procedures followed in this study. It will cover the following aspects: measuring self-regulated learning, using mixed methods in self-regulated learning research, research settings, research questions, using the mixed methods approach in the context of my study, research instruments, the sample group and ethical considerations, and a pilot study.

Consideration of the research paradigms

According to Crotty (1998, p. 2), when designing a research proposal it is essential to consider four main questions:

1) What methods do we propose to use?
2) What methodology governs our choice and use of methods?
3) What theoretical perspective lies behind the methodology in question?
4) What epistemology informs this theoretical perspective?

Creswell (2003, p. 5) uses these to address further three questions central to the design of research:

1) What knowledge claims are being made by the researcher (including a theoretical perspective)?
2) What strategies of inquiry will inform the procedures?
3) What methods of data collection and analysis will be used?

There are a number of possible paradigms for carrying out research (Creswell, 2003). These can broadly be categorised as positivist, anti- or post-positivist and pragmatic (P. Johnson & Duberley, 2000). Positivist assumptions have governed claims about what warrants knowledge (Creswell, 2003). This perspective is also called ‘scientific method’ or undertaking ‘science’ research, as well as quantitative research or empirical science (Creswell, 2003).

Knowledge that evolves under a positivist paradigm is based on the observation and measurement of the objective reality that exists ‘out there’ in the world (Creswell, 2003). Therefore, using numeric scales for measuring observations and studying the

behaviour of individuals is vital for a positivist (Creswell, 2003). Finally, the positivist belief is that there are laws or theories that govern the world and these need to be tested or confirmed and refined so that we can comprehend it. Therefore, the researcher in the scientific method (i.e. the accepted approach to research by positivists) normally collects data that either support or refute the theory and then makes essential amendments before further tests are conducted (Creswell, 2003).

Conversely, the anti- or post-positivist approach believes that the external world is more fundamentally unknowable and depends upon understanding the context and participants' perspective (Hildebrand, 2003). The assumptions recognised in these works hold that individuals seek understanding of the world in which they live and work (Creswell, 2003). They create subjective meanings of their experiences–meanings, leading toward certain objects. These are diverse and multiple, leading the researcher to look for complexity of thought rather than to narrow meanings into a few categories or ideas (Creswell, 2003). The aim of the research is to gain as much as possible from the participants' view of the situation being studied. So, the more open-ended the questioning, the better, since the researcher will be able to listen cautiously to what people say or do in their life setting (Creswell, 2003). This perspective tends to prefer more qualitative methods such as interviews or other approaches and other instruments that capture shades of meaning, to record experiences more appropriately (Rist, 1977). Finally, researchers recognise that their background forms their interpretation, and they 'position themselves' in the research to acknowledge how their understanding emerges from their own personal, cultural and historical experiences (Creswell, 2003), therefore aims to make sense of the meanings that others have about the world (Creswell, 2003).

Another position about claims on knowledge comes from the pragmatists (Creswell, 2003). Although there are many forms of pragmatism, according to most knowledge claims arise out of actions, situations and consequences rather than antecedent conditions (as in positivism) (Creswell, 2003). Pragmatism's stance is that, instead of considering methods being important, the problem is more important and the researcher, therefore, would use all approaches to address the research problem (Creswell, 2003). Tashakkori and Teddlie (1998) also emphasise the importance of focusing attention on the research problem in social science research, then using pluralistic approaches to develop knowledge about the problem.

Indeed, there is extended debate and no agreement about the exclusivity of approach in research, so any given study can reflect one or several approaches (Cohen, Manion, & Morrison, 2000). Thus, researchers must be as clear as possible about their selection of the problem, their procedures and their choice of paradigm (Creswell, 2003).

This is a mixed method study conducted to understand in depth how learners on a blended learning course in Saudi Arabia regulate their own learning from three main aspects: motivational; cognitive and metacognitive; and behavioural aspects. It is underpinned by the pragmatism stance for several reasons. First, pragmatism is not dedicated to any single framework of philosophy and reality (Creswell, 2003), and this applies to mixed methods research, since it requires drawing liberally from quantitative and qualitative assumptions when engaging in the research process. Second, researchers are free to choose the methods, techniques and procedures of research that best meet their needs and purposes (Creswell, 2003). Third, pragmatists do not see the world as an absolute unity (Creswell, 2003). Similarly, researchers using the mixed methods approach adopt many approaches to collecting and analysing data rather than subscribing to one way (e.g. quantitative or qualitative).

Fourth, truth is what works at the time; it is not based on a fixed dualism between the mind and a reality completely independent of the mind (Creswell, 2003). Therefore, investigators using mixed methods use both quantitative and qualitative data because they work to provide the best understanding of a research problem. Fifth, pragmatists consider the ‘what’ and ‘how’ of research based on its possible consequences and where they intend to go with it (Creswell, 2003). Mixed method researchers are expected to develop purpose for their ‘mixing’, a rationale for the reasons why quantitative and qualitative data need to be mixed in the first place. Sixth, according to the pragmatists research always occurs in social, historical, political and other contexts (Creswell, 2003). This means that mixed method studies is a postmodern turn that can act a theoretical lens that is reflexive of social justice and political aims. Finally, this study is underpinned by pragmatism viewed as Creswell (2003, p. 12) suggested that:

> For the mixed methods researcher, pragmatism opens the door to multiple methods, different worldviews, and different assumptions, as well as to different forms of data collection and analysis in the mixed methods study.

3.1 Measuring Self-regulated Learning

Understanding the way that learners regulate their own learning poses challenges for researchers (Hadwin, Boutara, Knoetzke, & Thompson, 2004). It is suggested that we still know very little about how self-regulated learning works while students are actually studying and about how they adapt studying during study episodes (Hofer, Yu, & Pintrich, 1998). Therefore, there has recently been a shift in the method of researching self-regulated learning in order to understand the complexities of self-regulated learning as it unfolds over time (Perry, 2002b) and the challenges that occur when measuring self-regulated learning as a series of events, instead of measuring it as a prevailing aptitude (Winne & Perry, 2000). Perry (2002a) emphasises that the following questions must be addressed when measuring self-regulated learning during its real context:

- What data can represent self-regulated learning in events?
- What properties do different kinds of data have and how should these influence decisions about gathering and analysing data?
- What are the relative strengths and weaknesses of different kinds of data and how are these best balanced in relation to topics that researchers might wish to investigate?

In the following sub-section I will examine the different views about the basic constructs of self-regulated learning that affect the methods that I used for my data collection.

3.1.1. Views of self-regulated learning constructs

Winne and Perry (2000) highlight two different conceptualisations of self-regulated learning, namely as an aptitude and as an event. They view aptitudes as theoretical concepts used to understand the observed differences in person–situation interaction during the learning task (Winne & Perry, 2000). They emphasise that they are not restricted to intelligence or some fixed list of differential abilities, but involve personality and motivational differences along with styles, attitudes and beliefs (Winne & Perry, 2000). In contrast, self-regulated learning may be conceptualised in terms of events that refer to every action that learners perform, rather than describing those actions or mental states that the actions generate (Winne & Perry, 2000). In addition,

according to Winne and Perry (2000) these events are operationalised in three more complex levels: occurrence, contingency and patterned contingency:

a) **An occurrence of an event** is a tally demonstrating that a researcher observed a state such as the learner making a note while performing a learning task. However, as these measures provide no information about the context that preceded the event they ignore information about context.
b) **A contingency record** is when a following state is preceded by a prior state, for example the learner making a note immediately after highlighting an italicised term.
c) **A patterned contingency** means the regular, repeated arrangements of component contingencies. For instance, after highlighting an italicised term the student links a note to that term in the glossary. This is repeated by the student, linking 12 of the 30 italicised terms highlighted by the learner (Winne & Perry, 2000).

3.1.2. Methods of measuring self-regulated learning

There are two major methods for gathering data that measure self-regulated learning: online and offline. For example, a synchronised think-aloud protocol is an online method because cognitive and metacognitive processes are generated while a learner is using an online environment. By contrast, a retrospective protocol is viewed as an offline method that may be used by a researcher at the end of an online session to ask a learner why particular cognitive and metacognitive processes were used during the learning session (Azevedo, Daniel, Amy, & Amber, 2010). Furthermore, the methods used to collect detailed information about students' studying actions are determined by the way that self-regulated learning is viewed. For instance, there are two general approaches to generating data about self-regulated learning based on the different views of self-regulated learning constructs (i.e. as an aptitude or as an event) (Winne & Perry, 2000). In the following sub-section, I will attempt to illustrate such considerations.

3.1.3. Viewing self-regulated learning as an aptitude

When considering self-regulated learning as an aptitude, gathering data about self-regulated learning includes two main methods: inventories and think-aloud protocols. Collecting an inventory is normally undertaken by asking a learner to imagine a learning episode (Winne & Perry, 2000). Two main instruments are used in these methods: inventory-generated self-report data and think-aloud self-reports. Regarding

the first instrument, it is suggested that the research on self-regulated learning has mainly been conducted using survey methods to examine the relationship between self-regulated learning and different learning aspects such as self-efficacy, motivational factors and achievement outcomes with the impact of self-regulated learning upon achievement in various instructional contexts (Hadwin et al., 2004), and the response intended to represent the population of experiences of learning (Winne & Perry, 2000). Although there are many models of self-regulated learning that emphasise its iterative and recursive nature, there are also many studies that attempt to measure self-regulated learning at a moment in time with questionnaires, self-reports or interviews (Hadwin et al., 2004).

In contrast, think-aloud self-reports are about inviting learners to 'think aloud' about mental states approximately concurrently with a learning task, without any constraints on when or what a learner might report (Winne & Perry, 2000). Moreover, asking the learner to recall the protocol after a session has ended represents an unstructured interview (Winne & Perry, 2000). This way of collecting data about self-regulated learning differs fundamentally from the method of inventory-generated self-report data. First, it is closer to the cognitive events and mental states that learners describe. Second, the data gathered are based on the learners' decisions when thinking aloud about a topic rather than the researcher's question about a particular topic. However, think-aloud protocols do not reflect events; rather, they represent a learner's interpretation of events (Winne & Perry, 2000).

Furthermore, these methods of data collection (i.e. inventory-generated self-report data and think-aloud self-reports) may be conducted in two ways. Sometimes, context is described openly, for instance, 'When you study...' (Winne & Perry, 2000). On other occasions the researcher describes a context that consists of multiple episodes of studying, for example, 'On this course...'; in this kind of context, the researcher asks the learner to estimate the frequency, intensity, likelihood, difficulty (effort required) or capability of carrying out a process or of generating a product by some unspecified cognitive operation (Winne & Perry, 2000). Usually, the response options of the learners are determined; for example, the participant would choose from a 1 to 7 Likert scale anchored by 'Not true for me' and 'True for me'. This is suitable for verbal

protocols, such as interviews, in which the learners can respond as they wish (Winne & Perry, 2000).

Winne and Perry (2000) argue that quantitative operators to responses, such as counting similarly phrased responses and forming a single category, such as summarising or averaging scores across the Likert item responses, are not appropriate to interpret self-regulated learning events, and their reliability and meaning are suspect. This is because making the same response about a certain learning tactic, for example, does not mean that it appears in the same context (Winne & Perry, 2000).

3.1.4. Viewing self-regulated learning as an event

Regarding data collected about self-regulated learning as an event, one data gathering method is tracing the online learning activities of learners (Hadwin et al., 2004). It is a non-intrusive approach to collecting information for research about learners as they learn (Hadwin et al., 2004) that is approximately concurrent with the cognitive operations the learner applies to information in working memory. For example, a very simple trace is the highlighting of words in a text by a learner (Winne & Perry, 2000). Additionally, the data gathered using such methods illustrates what learners do in real time (Winne & Perry, 2000). It is suggested that traces probably offer enough information to make it possible to draw a comprehensive picture of self-regulated learning; they may provide much-needed data about students' activities while studying (Hadwin et al., 2004). It is emphasised that trace data avoid the shortcomings of asking learners what they believe they do, asking learners to perform mental calculations of unknown kinds and using sample fractions of past or possible future experiences that have unknown size and biases (Winne, 2010). When traces are accurately operationalised definitions of theoretical cognitive and metacognitive operations they offer robust grounds for testing theories about when, whether and how self-regulated learning processes affect learning (Winne, 2010).

Many issues about such instruments have been reported. First, collecting traces involves intervening in learning experiences to generate data. If the interventions are unbalanced, their ability to support valid suggestions is undermined (Winne, 2010). Learners normally need to be trained in how to trace (Winne, 2010), which may be time consuming when researching such phenomena. Although Winne and Perry (2000) suggested a proposal to measure cognitive activities in order to gain more valid test

theories about learners' mental activities while learning, it was also emphasised that using trace data as a suggested method is useful whenever an observable behaviour can show a certain factor that affects cognition and metacognition (Winne, 2010).

3.2 Using Mixed Methods in Self-regulated Learning Research

Mixed methods research has been used as a separate research method in the social and behavioural sciences for more than three decades (Fidel, 2008). Many discussions and debates are still developing in relation to its definition, the methods involved and the standards for its quality. However, it has become an established research method and is considered a third research approach, along with the quantitative and qualitative approaches (Fidel, 2008). In addition, mixed methods research is considered as a developed wave of the research movement that offers a logical and practical alternative by making use of different research approaches, such as induction (the discovery of patterns), deduction (the testing of theories and hypotheses) and abduction (uncovering and relying on the best of a set of explanations for understanding the results) (R. B. Johnson & Onwuegbuzie, 2004). It is a research approach in which the knowledge claim is based on pragmatic grounds, such as consequence-oriented, problem-centred and pluralistic (Creswell, 2002). R. Burke Johnson, Onwuegbuzie, and Turner (2007) conducted a comparison analysis of 19 of the leading definitions of the mixed methods approach to answer the following question: What is mixed methods research? Based on their analysis of the definitions, they provide the following broad definition:

> Mixed methods research is the type of research in which a researcher or team of researchers combines elements of qualitative and quantitative research approaches (e.g. use of qualitative and quantitative viewpoints, data collection, analysis, inference techniques) for the broad purposes of breadth and depth of understanding and corroboration. (R. Burke Johnson et al., 2007, p. 123)

Furthermore, mixed methods research is used to make legitimate the use of multiple approaches in answering research questions, rather than restricting research to a single approach (R. B. Johnson & Onwuegbuzie, 2004). The rationale of using such an approach is based on the assumption that gathering diverse types of data will provide a better understanding of the research question (Creswell, 2002). For instance, the study could begin with a broad questionnaire that could help to generalise results to a

population and then consolidate the findings in the second phase by collecting detailed views from the participants (Creswell, 2002).

When applying a mixed methods approach, it is essential to consider the chronology of the qualitative and quantitative phases as well as the purpose of using such an approach. Two common options are suggested for the chronology; that is, to carry out the research either sequentially or concurrently (R. B. Johnson & Onwuegbuzie, 2004). In the context of this study, I use both qualitative and the quantitative approaches concurrently due to the time constraints of the fieldwork (R. B. Johnson & Onwuegbuzie, 2004). R. B. Johnson and Onwuegbuzie (2004) list five main reasons to use the mixed methods approach. The first is *triangulation,* which refers to the idea of seeking convergence and corroboration of results from diverse methods and designs studying the same problem. Second, *complementarity* occurs when combining the result from one method with results from another method to seek elaboration, enhancement, illustration and clarification. The third purpose is *initiation*; this type of mixed method is used to discover paradoxes and contradictions that can help in developing the research question. Fourth, *development* is about using one method to develop the other method. Finally, *expansion* relates to the notion of expanding the breadth and range of the study by using different methods for different research elements. This study uses mixed methods to triangulate and complement the data generated by both approaches to give a better understanding of the research problem.

In addition, Tashakkori and Teddlie (2003) suggest four types of triangulation that may contribute to the verification and validation of a qualitative analysis:

1. Methods triangulation: checking out the consistency of findings generated by different data collection methods
2. Triangulation of sources: checking the consistency of different data sources within the same method
3. Analysis triangulation: using multiple analysis to review findings
4. Theory/perspective triangulation: using multiple perspectives or theories to interpret the data. (p. 556)

The first type of triangulation is a major consideration in this study, in which the outcomes from the qualitative phase will be used to verify the consistency of the

outcomes from the quantitative phase. This will help not only by providing different ways of looking at the research problem but adding to the reliability by strengthening confidence in whatever conclusions are drawn (Tashakkori & Teddlie, 2003). The following cases are about using the mixed methods approach in relation to self-regulated learning.

Case 1: Patrick and Middleton (2002) argue for multiple methods to explore self-regulated learning since mixed methods would make it possible to appreciate fully its complexity. For instance, a study conducted by Wiklund-Engblom (2010) aimed to investigate the experiences of end-users of e-learning from different perspectives in order to learn about the how and why of their e-learning process with a specific focus on their cognitive constructs and self-regulation. He used a mixed methods approach to collect the data and then triangulated the findings in the analyses. He noted that using both observations and video-stimulated recall interviews could give an extensive overview of a person's learning profile during their learning task. This was done by using both interview transcripts and observation transcripts as well as the researcher's interpretations of these data (Wiklund-Engblom, 2010). He emphasised that questionnaire data can be used as traits and thus may be linked to categories of qualitative data (Wiklund-Engblom, 2010).

Case 2: Park and Sperling (2012) explored the motives and reasons for academic procrastination from a self-regulated learning point of view. They used a mixed methods approach in which participants responded to a number of survey instruments related to academic procrastination (i.e. the Procrastination Assessment Scale—Student (PASS) and the Self-Handicapping Scale (SHS)), self-regulation (i.e. the Motivated Strategies for Learning Questionnaire (MSLQ)) and academic motivation (i.e. the Generalized Self-Efficacy Scale (GSES)), and also took part in semi-structured interviews. Forty-one undergraduate students participated in the study. They were studying two sections of an introductory general education course at a large mid-Atlantic university and were aged between 19 and 21 years old. The researcher chose the general education course as the students had different majors including elementary education, secondary education, communication disorders, special education, human development and family studies, kinesiology and rehabilitation services (Park & Sperling, 2012). In addition, 36 of them participated in the focus groups and five others

in interviews. There were between two and seven students in each focus group. The size of the group was defined by self-selected time slots and the students chose the sessions most convenient for their schedule. All participants were given an extra credit point in their course grade for taking part in the study (Park & Sperling, 2012). The interview protocol for the study was semi-structured and was used as a guide when the interviewer developed the protocol and added more questions during the interview (Park & Sperling, 2012).

The interview questions were open-ended and were intended to obtain in-depth descriptions of the participants' academic and procrastinating behaviours. The same protocol was applied to both the focus group and the individual interview sessions (Park & Sperling, 2012). All of the participants in the interview session were asked to describe a recent time when they had procrastinated over an academic task. This question aimed to engage the students in the topic as they explained their own experiences. Subsequent enquiries were developed to investigate students' perceptions of and various potential reasons for academic procrastination. Examples of questions were 'How much did you care about the outcome or performance of your work?' and 'Why do you think you procrastinated over this task?' The interviews took place in a small classroom. On the arrival of the participants, the researcher distributed the survey pack and the consent document, and the aims of the study were explained (Park & Sperling, 2012). The participants were informed via the consent form that they could refuse to respond to any questions without any penalty. All the interviews were audio-recorded and took about 40 minutes each; all sessions were finished within a fortnight (Park & Sperling, 2012).

Reflecting on previous cases, a number of points can be learned in the context of my research. First, although both cases used a mixed method approach to the context of self-regulated learning, their purposes differed. This variety in using a mixed method approach would enrich my experience of using such method to explore how learners in a blended learning environment regulate their own learning from three main aspects: the motivational; the cognitive and metacognitive; and the behavioural. Second, the different methods that were mixed in each case are another aspect that enhanced the understanding of how these can be used in the context of self-regulated learning in my study. Finally, the different kinds of processes being undertaken in each case helped me

to draw the scenario of conducting a mixed method research into my own case. Further explanations about the design of the mixed method approach will be provided later in this chapter.

3.2.1 Using the Motivated Strategies for Learning Questionnaire (MSLQ)

The definition and theoretical framework of MSLQ

The MSLQ is a self-report instrument developed by Pintrich et al. (1991). It is based on the social cognitive theoretical framework that views motivation as a dynamic and contextual process rather than as learner traits and considers that learning strategies may be learned and brought under the control of the student (Duncan & McKeachie, 2005). In this model, the assumption is that students' motivation is linked directly to their capability to self-regulate their learning activities, where self-regulated learning is defined as the learner being metacognitively, motivationally and behaviourally involved in their own learning process (Artino, 2005). This framework assumes that motivation and learning strategies are not fixed attributes of the learner, rather that:

> motivation is dynamic and contextually bound and that learning strategies can be learned and brought under the control of the student. (Duncan & McKeachie, 2005)

It was designed to focus on the course level, since this is situated between the very general, global level of all learning situations and the impractical and unwieldy level of every specific situation on a single course (Duncan & McKeachie, 2005).

The structure of MSLQ

With respect to the structure of the instrument, the MSLQ consists of two main components (see Figure 12): motivation and learning strategies (Yusri et al., 2011). The motivation aspect of the questionnaire comprises 31 items that assess students' goals and value beliefs for a course, their beliefs about the skills needed to succeed with a course and their anxiety about tests on a course (Duncan & McKeachie, 2005). In addition, the motivational scales are based on three general motivational constructs: expectancy, value and affect (Duncan & McKeachie, 2005). The expectancy components refer to students' beliefs that they can accomplish a task, while the value components focus on the reasons students engage in an academic task; the third general motivational construct is affect, implemented in terms of responses to the test anxiety

scale, which taps into students' worry and concern over taking examinations (Duncan & McKeachie, 2005).

In addition, the learning strategy section comprises 31 items regarding students' use of different cognitive and metacognitive strategies; this section includes 19 items concerning students' management of different resources (Duncan & McKeachie, 2005). The cognitive strategies include students using basic and complex strategies when processing information from texts and lectures (Duncan & McKeachie, 2005). Additionally, the metacognitive control strategies are measured on a single large sub-scale related to the use of strategies that help students control and regulate their own cognition. This includes planning (setting goals), monitoring (of one's comprehension), and regulating (e.g. adjusting reading speed depending on the task) (Duncan & McKeachie, 2005). The third general strategy category is resource management, which covers four sub-scales: managing one's time and study environment, regulating one's effort, peer learning, and help seeking (Duncan & McKeachie, 2005). The rationale for using the MSLQ in this study will be provided later in this chapter.

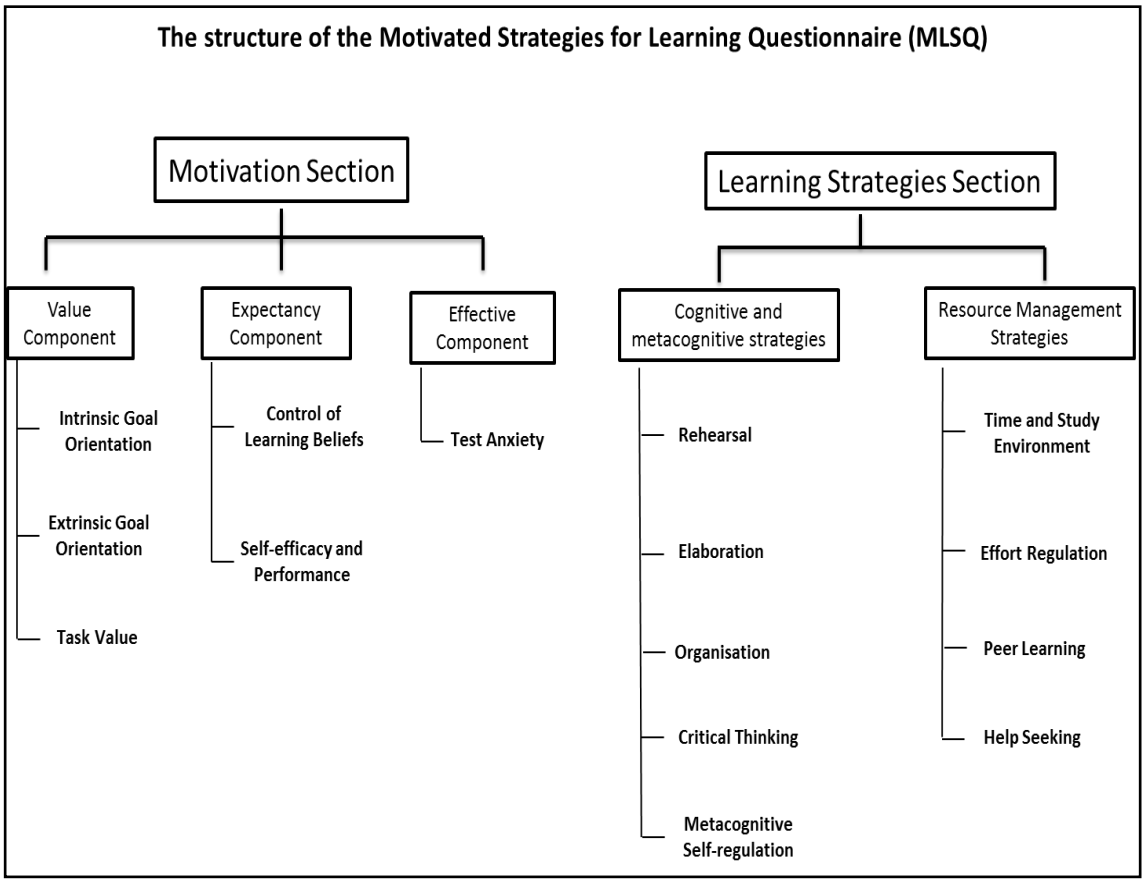

Figure 12: Motivational strategies for learning questionnaire

3.2.2. Using interviews in self-regulated learning research

Quantitative methods of researching self-regulated learning generally focus on important questions about frequency, such as 'How much?' or 'How often?', yet these are not the only questions that researchers and practitioners need to answer (Patrick & Middleton, 2002). It is suggested that the way we consider self-regulated learning is affected by the recent views of how student learning is situated and socially constructed. Therefore, when researching self-regulated learning we need to ask the what, how, why and when questions surrounding self-regulated learning (Paris et al. (2001) as cited in Patrick & Middleton, 2002). A qualitative methodology such as interviews provides thick, vivid description since it is sensitive to the context (Miles & Huberman, 1994). So, interviews are the optimal tool for answering what, how, why and when questions (Patrick & Middleton, 2002). For example, an interview will provide us with students' 'understanding of the task and other requirements' while enabling us to:

> learn the kinds of things they think about during and after engaging in activities, what aspects of the task and context they think encourage and support their persistence and thoughtfulness, and why they do what they do. (Patrick & Middleton, 2002, p. 30)

Moreover, from an event point of view, self-regulated research focuses on individuals' engagement in certain activities, rather than an average score across multiple cases. Therefore, this type of research requires the use of research methods that provide rich description (Patrick & Middleton, 2002). Accordingly, qualitative methodologies are suitable for exploring self-regulated learning as events since they provide rich and holistic descriptions as well as considering the social setting in which the learning occurrs (Patrick & Middleton, 2002). Interviews are among the most important qualitative methods (Winne & Perry, 2000). For instance, open-ended interviews may support observations by allowing participants to illustrate events in their own words and from their own perspectives. Therefore, interviews provide researchers with the opportunity to gain a grounded, inductive approach to understanding students' thoughts and behaviours, rather than just applying their theoretical perspective or pre-established categories to what students say (Patrick & Middleton, 2002). It is considered a qualitative method that provides rich, contextualised descriptions that can answer what, how, why and when questions, as well as enabling methodological triangulation to be

carried out (Patrick & Middleton, 2002). Further illustration of the use of the interview in this study will be provided in the following sub-sections.

Definition of interviews

Interviews are a popular tool to access people's experiences and their inner perceptions, attitudes and feelings about reality (Zhang & Wildemuth, 2009). An interview is a dialogue or conversation between two or more people in which one takes the role of the researcher and the other/s the participant/s (Gray, 2004). Usually, the interchange between the researcher and the participant is about a topic of mutual interest (Cohen et al., 2000). Neuman (1997) describes an interview as 'a short-term secondary social interaction between two strangers with the explicit purpose of one person's obtaining specific information from the other' (p. 254); in other words, it is a systematic approach to talking and listening to people in order to collect data from individuals (Kajornboon, 2005). This qualitative research technique is normally conducted intensively with a small number of respondents to explore their perspectives on a particular idea, programme or situation (Boyce & Neale, 2006). In addition, during that process the interviewee is considered as an expert and the interviewer as a student, keen to learn everything the participant can share about the research topic (Milena, Dainora, & Alin, 2008).

From the previous definitions, the interview may be viewed from the following main perspectives. First, the interview is mostly a verbal interaction between specific people. Second, this process involves two persons or more in which one acts as researcher who delivers certain questions in order to receive responses relative to the research interest. Third, it is not something that is conducted for leisure but it is an investigational process conducted to explore perspectives and attitudes from the participants. Fourth, the interview must be conducted in a systematic way to increase the validity of the research outcomes. Finally, it can be perceived as a qualitative research instrument used to collect data from individuals.

The following cases from the literature show different ways of applying the interview as a qualitative data collection method in the context of studying the concept of self-regulated learning.

Case 1: Patrick and Middleton (2002) present two cases from their ongoing project of mixed methods research into middle-grade urban students' cognitive, metacognitive, motivational and collaborative engagement in inquiry-based science. In one, the research aim was to create additional inquiry-based science curricula to support teachers in using these curricula and to explore how students and teachers engage with the science. Within each science class, they concentrated on a sub-sample of four to five students for more intensive study. The participating students were chosen by their teacher on criteria of good attendance, average achievement level and anticipated willingness to share their thoughts. The course lasted for ten weeks and the following methods were among the wide range of methods used in the study: classroom observations, interviews and self-report surveys.

The interviews were based on a protocol of open-ended questions and the students were asked to give descriptions and examples as illustration. The questions were driven by the main question (e.g. if and how it related to the real world, to the investigation and to the presentation), students' cognitive and metacognitive engagement (e.g. the kinds of things they thought about and how they went about learning what they needed), motivation (e.g. whether learning about science is interesting and is useful, what part of project-based science they enjoyed the most, whether they talked with others or read about science outside the classroom), collaboration (e.g. whether they discussed their ideas with others, liked working in a group and whether working with others helped them learn science) and technology use (e.g. how the technology fitted with what they were learning) (Patrick & Middleton, 2002, p. 29).

Self-report surveys were distributed among the students to measure their attitudes and beliefs about science. These measures included the use of cognitive and metacognitive strategies, motivation and perceived collaborative support (Patrick & Middleton, 2002).

Case 2: A study conducted by Groot (2002) aimed to discover students' motivational beliefs and self-regulated learning as well as examining the differences in beliefs and learning across different subject domains by integrating data obtained using the MSLQ. He interviewed 16 seventh-grade students individually using an unstructured in-depth interview. The interview began with open questions, such as 'Tell me how you go about learning things for school' (Groot, 2002). The students determined the pace and directions of the interview with the interviewers asking explanation questions and

reflecting back what they had heard. The interviews were audio recorded and transcribed (Groot, 2002). The transcripts were labelled with the participants' initials and by the ID number assigned to the questionnaire, to be used later when comparing the interview data with the quantitative data.

The outcomes from the qualitative and quantitative data suggest that there is a link between motivational beliefs, and cognitive and self-regulatory strategies in the classroom context (Groot, 2002). Groot concluded that by conducting the interview it was possible to listen to the differences between self-described better, average and poorer students about their reflections on how they experienced their own learning. For instance, three main differences were noted from the study: how they talked about what learning strategies or resources they used to study, the kind of skills that they employed in regulating their effort and persistence, and which factors from their learning environment affected their learning process (Groot, 2002). He emphasised that interviews:

> not only added depth and richness to the quantitative data but also provided insights into how students made connections between motivational and cognitive constructs important to their learning, and how contextual factors (e.g. teacher and peer behaviour), not tapped by the questionnaire, could influence their self-regulation and learning. (Groot, 2002, p. 44)

Case 3: Groot (2002) also presented three types of interviews to explore students' perceptions of their learning: unstructured, in-depth interviews; structured interviews; and semi-structured interviews. In the first, individual interviews were conducted to explore students' perceptions of how they learned things for school. The interview in this study represents the qualitative part of Groot's mixed methods approach and this section was treated as a separate study from the questionnaire components to triangulate the data from both instruments to address the research problem. The aim of the interview was to understand how students made meaning of their experiences and what they believed to be significant to their learning, The aim was not to find information that supported the outcomes from the questionnaire or to achieve answers to specific questions (Groot, 2002). Groot concluded that the use of unstructured interviews permitted learners to talk about their own stories in their own way, providing rich descriptions of themselves and their experiences that could not be obtained any other way (Groot, 2002). However, conducting these types of interviews requires a significant

investment in terms of time and effort. Moreover, it requires the interviewers to be highly skilled so they can facilitate rather than direct and can explore participants' perceptions (Groot, 2002).

Case 4: With respect to the structured type of interviews, Groot (2002) conducted a sequence of six individual interviews over more than two and a half years. He reported a number of advantages to using such an interview approach; first, it was possible to collect data about students' perspectives in a relatively short time. Furthermore, although this way of interviewing still required skills, these could be achieved in a shorter time through training sessions and the interview protocol was helpful during data analysis. On the other hand, challenges were reported. First, building the questions of the instrument in a way that would allow the actual interview to flow was difficult and the nature of this approach made this issue unavoidable. Second, a structured interview is limited by its very nature. The interview in the study was designed to complement the quantitative part of the research. However, essential issues were raised during the first years of the study that were resolved in the second year; this was possible due to the longitudinal nature of the study. Nonetheless, it indicates the kind of challenges the must be faced when using such interviews (Groot, 2002).

Case 5: Finally, Groot (2002) reported his experience of conducting a semi-structured focus group interview with both students and teachers. The interview consisted of guides and open-ended questions, and combined some advantages of both unstructured and structured interviews. It also shared some of their disadvantages. For instance, this approach to interviewing requires a high level of skill by interviewers, especially when conducting focus group interviews, because they need to be able to pay attention to many participants at the same time as well as guiding the discussion in such a way to allow participants to convey what they perceive as critical to their experiences in the school setting. In addition, conducting a focus group interview in the study rather than individual interviews allows a researcher to gather as much information as possible in a short period of time regarding individuals' perceptions and how individuals interact with one another; in this instance, the focus group was a good choice. There were a number of limitations reported in the study. The large number of participants affected Groot's ability to gather perspectives on the range of areas that he thought important to investigate in the limited time. Moreover, it was reported that some of the participants

were unwilling to express opposing opinions in a highly public setting such as a focus group (Groot, 2002). The rationale for using interviews in this study will be provided later in this chapter.

The previous reported cases show a number of examples that illustrate how the interviews can be used in the context of investigating self-regulated learning. Many conclusions can be drawn by reflecting on them. First, they illustrate different types of processes undertaken when conducting an interview to investigate self-regulated learning. This includes the following aspects: a) the criteria for choosing participants for the interview session; b) the number of participants and its effects; and c) recording and transcribing the interviews. Second, based on the number of participants in the interview sessions, the previous cases introduced the advantages and disadvantages of different types of interviews; this includes individual and focus group interviews. Finally, previous cases represent different types of interviews in terms of structured and unstructured, including in-depth, structured, and semi-structured interviews, with a report of their benefits and shortcomings. Such conclusions enhanced my understanding when designing and conducting my instruments for this study. Further explanations about the rationale and designing of the interviews in this study will be provided later in this chapter.

3.3 Research Settings

3.3.1 Blended learning at King Khalid University

Why King Khalid University?

Because the main purpose of my study is to understand the perceptions of male learners about how they regulate their own learning in a blended learning environment in Saudi Arabia, I suggest that three main conditions are required for the fieldwork:

1) **Existence**: there should be a number of blended learning courses running currently.
2) **Sufficiency**: the blended learning courses must have been running for a while (i.e. one academic year at least).
3) **Familiarity**: the people involved in the study (i.e. students, instructors) must be familiar with the blended learning environment and the technology involved.

Therefore, as part of the preparation process for my research fieldwork I conducted an informal visit to the University of Narjan (where I am a member of staff) in order to gain a clear understanding of its current blended learning environment. The visit aimed to answer the following main questions:

1) Which types of blended learning infrastructures are available there?
2) How many blended learning courses are running currently?
3) For how long have these courses been running?
4) How many students are enrolled in these courses?
5) How many instructors are involved in these courses?

The visit, in July 2012, enabled me to meet members of staff from the Deanship of E-learning and Distance Learning to discuss these questions. Unfortunately, this revealed that there have been no blended learning courses at Najran University until now, because e-learning here is still in its early stages and thus the main effort is on establishing the required infrastructure. After this informal investigation, I sought an alternative location that would match the previous fieldwork conditions. A second informal visit was conducted, this time to King Khalid University in the southern region of Saudi Arabia, to illustrate and promote the purpose of the study as well as to gather informal information relating to the previous five main enquiries.

The history and extent of blended learning at King Khalid University

Blended learning courses have been running since 2009 at King Khalid University. From that time, there has been a massive increase in the number of students, instructors and courses. The following table shows the rate at which these have increased since 2009:

Table 6: Number of students, instructors and courses 2009–2012

	2009/2010	2010/2011	2011/2012
Students	4820	9741	21646
Courses	216	498	943
Instructors	109	207	499

As shown above, the number of students enrolled on blended learning courses at King Khalid University increased dramatically from 4,820 in 2009/2010 to 21,646 in 2011/2012 , that is, around 257 per cent. The number of blended learning courses increased hugely from 216 courses in 2009/2010 to 943 courses in 2011/2012, that is,

approximately 436 per cent. Finally, there was a notable increase in the number of instructors involved in the blended learning environment at King Khalid University, from 109 instructors in 2009/2010 to 499 instructors in 2011/2012, or about 457 per cent.

Types of e-learning at King Khalid University

E-learning in the University takes place at three levels: supportive e-learning, blended learning and full e-learning. In supportive e-learning all classes are taken face-to-face in classrooms and e-learning systems, tools and environment are used to support and facilitate the learning process. In blended learning, some of the face-to-face sessions in classrooms are replaced by e-activities on the course website using e-learning systems, tools and environment. The proportion of the course allocated to e-learning from the actual teaching hours is decided in advance at three levels: 25%, 50%, 75%. Finally, in full e-learning all face-to-face sessions in classrooms are replaced by e-activities on the course website using e-learning systems, tools and environment, with the exception of the final examination and limited face-to-face sessions decided by the faculty and the teacher (ELD, 2011).

E-learning and level of obligation at King Khalid University

The application of the supportive e-learning is obligatory for all the university courses, without exception, while blended and full e-learning are applied to the courses selected by the department and approved by the faculty. Furthermore, the University, represented by its administration or the deanship, has the right to decide the form and size of the application of the blended and full e-learning.

Learners and e-learning at King Khalid University

According to the regulations regarding e-learning at King Khalid University, the learner should be at the centre of the learning process. For instance, the following is from the main rules of e-learning at the University:

> The instructor is obliged to motivate the students and activate their participations to improve the learning process following the learner-centered approach. ("Rules for e-learning at King Khalid University," 2011, p. 11)

The instructor is committed to establish an environment that supports constructive and critical thinking, analysis and problem solving in the e-course ("Rules for e-learning at King Khalid University," 2011). It is explicitly stated that:

> the student is the centre of the learning process in all activities and evaluations. (ELD, 2011, p. 13)

Finally, based on the rules, a learner is considered as being absent if they do not complete any online activity for the course within the limited period ("Rules for e-learning at King Khalid University," 2011), which places emphasis on learners taking responsibility for their own learning.

Instructors and e-learning at King Khalid University

Many attributes may be derived from the rules of e-learning for instructors on blended learning courses at King Khalid University. First of all, teaching via blended learning is the initiative of the instructor, so he should complete ‘the form of teaching a blended course and get it approved by the head of the department and the dean’ ("Rules for e-learning at King Khalid University," 2011, p. 9). The instructor of a blended learning course at King Khalid University is expected to have the technical and teaching skills needed for blended learning, since the following is among the main rules:

> The instructor should have enough technical and teaching experience in dealing with a blended course. The faculty is responsible for verifying it and it can consult the deanship in this regard. ("Rules for e-learning at King Khalid University," 2011, p. 9)

It is clear that the University’s blended learning environment might be a suitable case study meeting the previous three requirements of existence, sufficiency and familiarity.

3.3.2 Description of the elected module

The elected module for this study is a general requirement module entitled Islamic Culture, special code SALAM 113. The students are male and they learn the foundations of the Islamic community, the most important features of the family system in the light of Islamic principles and the most important problems encountered by families in the Muslim community. The materials for such a general module are provided in a way to suit non-specialists by highlighting the wisdom of the legislation, comparing its principles with other social systems and principles worldwide.

As illustrated previously, this study uses the definition of blended learning recognised by King Khalid University, in which blended learning is: ‘one of the levels of using e-learning in the University in which some of the face-to face sessions in classrooms are replaced by e-activities on the course site using the e-learning systems, tools and environment’ ("Rules for e-learning at King Khalid University," 2011, p. 5). Two main principles can be perceived from the definition: a) the inclusion of face-to-face sessions and online learning; b) the use of e-learning systems, tools and environment in the online part of the course.

The elected module was compatible with these principles. First, this module consists of 30 hours during the full academic semester of 15 weeks. The weekly hours of the course were divided into one-hour class sessions and one-hour online learning sessions. Accordingly, the total amount of learning hours in the course was 15 hours in class and 15 hours as online (Appendix M shows the module outline).

With respect to the second principle, the other one-hour weekly online learning session was conducted through a Content Management System (CMS) (i.e. Blackboard Inc.) with various interactive functions such as learning forums, online chat and so on. When the students undertake a learning task in this course, the instructor informs them through Blackboard and makes the task available to them for a limited time. Once the students receive the notification, they have to complete the learning task during the time permitted or it will be considered an unaccomplished task and the learner regarded as being absent from the online learning session. The tasks are designed to support learners in developing their social knowledge and skills through various learning strategies such as lectures, dialogues, search and discussion.

The total credit for the module was split evenly between the learning tasks and the final examination. The students were assessed through two main learning tasks and a final examination. The submission of the first learning task was due in Week 7, the submission for the second in Week 14 and the final examination undertaken during Week 15. Every week the instructor assigned five hours in his office for those learners who seek further help.

3.4 Research Questions

This study explores the way in which male learners at King Khalid University self-regulate their learning on a blended learning course, so the main research question is:

> **How do male learners at King Khalid University regulate their own learning on a blended learning course?**

This will be addressed quantitatively and qualitatively through the following sub-questions:

1) Which aspects of self-regulated learning are more apparent on a blended learning course?
2) How do male learners at King Khalid University motivate themselves on a blended learning course?
3) How do male learners at King Khalid University use their cognitive and metacognitive abilities on a blended learning course?
4) How do male learners at King Khalid University manage their learning resources on a blended learning course?

Further explanation about the way in which these research sub-questions were distributed through the research instruments will be provided in later sections.

3.4.1 Using the mixed methods approach in the context of my study

This study will adopt the mixed methods approach (see Figure 13), which refers to the idea of using the qualitative research paradigm for one phase of a research study and the quantitative research paradigm for another in order to understand a research problem more completely (Creswell, 2002). It uses strategies of research that allow the data to be collected either simultaneously or sequentially to understand the research problem best. The data collection also involves gathering both numerical data, such as from instruments and text data, such as interviews, so the final database will represent both quantitative and qualitative information (Creswell, 2002). The quantitative aspect of the research will provide the following advantages. It will make my observation about self-regulated learning in King Khalid University more explicit and it will make it easier for me to aggregate, compare and summarise data on different aspects of self-regulated learning that exist in the fieldwork (Babbie, 2010). Therefore, in the first phase I will use the MSLQ by Pintrich et al. (1991) to address the first research sub-question:

Which aspects of self-regulated learning are more apparent on a blended learning course?

Because quantitative data would lose richness of meaning (Babbie, 2010), I apply a qualitative approach in the second phase of my study. This will assist me to develop an explanation of the social phenomena that I address (B. Hancock & Group, 2001) by answering the following research sub-questions:

How do male learners at King Khalid University motivate themselves on a blended learning course?

How do male learners at King Khalid University use their cognitive and metacognitive abilities on a blended learning course?

How do male learners at King Khalid University manage their learning resources on a blended learning course?

Further explanations about the main and sub-aspects of self-regulated learning according to the MSLQ frame work by Pintrich et al. (1991) will be demonstrated in the following section.

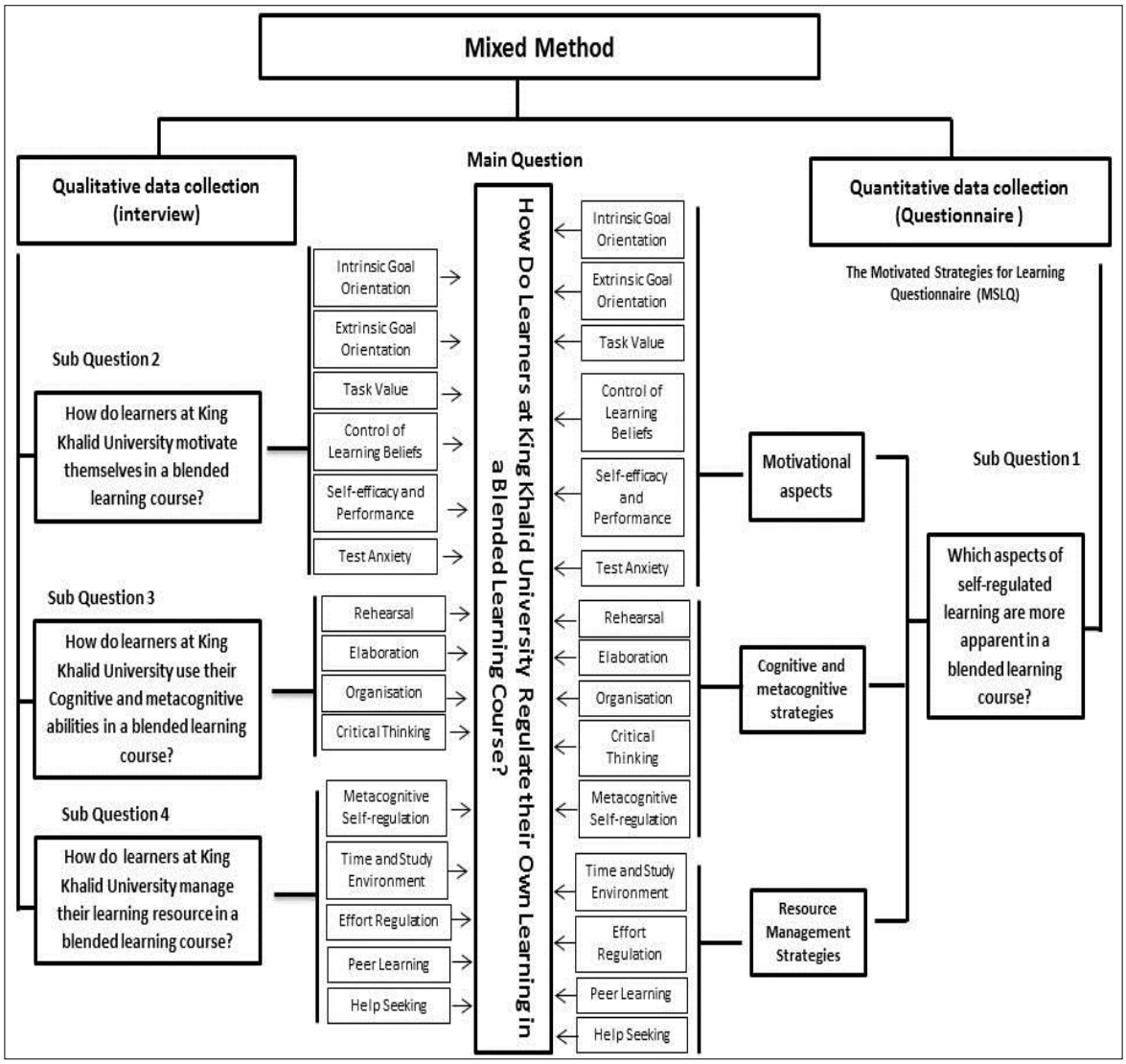

Figure 13: Research methodology framework

3.5 Research Instruments

3.5.1 The Motivated Strategies for Learning Questionnaire (MSLQ)

Instrument and score use

The MSLQ was designed to provide researchers with a tool that can be used as a measurement instrument to investigate the nature of student motivation and use of learning strategies (Artino, 2005). The self-report survey is usually given in class, taking about twenty to thirty minutes (Artino, 2005). Scores from the MSLQ have been used mainly by researchers applying empirical research in the areas of motivation and self-regulated learning. In particular, scores have been used to understand the nature of motivation and its effect on learning strategies use, to refine the theoretical understanding of between- and within-domain specificity of motivational constructs and

to evaluate the motivational and cognitive effects of instructional interventions, including different course structures and various educational technologies (e.g. online learning and computer-based instruction) (Duncan & McKeachie, 2005). In the context of this study, I used the MSLQ as a quantitative instrument to explore and compare the motivational and learning strategy attributes among male learners on a blended learning course at King Khalid University. This helped me to understand the way in which these learners regulate their own learning, at the macro level and the quantitative outcomes were triangulated by outcomes from the qualitative instrument (i.e. the interviews), which helped me understand the research question at the micro level.

Reliability and validity of the MSLQ

McKeachie and Pintrich began formal development of the MSLQ after being awarded a grant by the Office of Educational Research and Improvement in 1986 (Artino, 2005; Pintrich et al., 1991). The draft versions of the instrument were developed at three colleges in the Midwest over three data collection periods, during 1986, 1987 and 1988, with 326, 687 and 758 students respectively (Artino, 2005; Pintrich et al., 1991). After each data collection and analysis, items were rewritten and the conceptual themes derived from the instrument were refined (Artino, 2005). The final version of the MSLQ was published formally in 1990 in *Educational and Psychological Measurement* (Artino, 2005; Pintrich et al., 1991). The questionnaire is available in the public domain of the internet; all are welcome to use it for valid research purposes and there is no need for permission as long as the instrument is cited appropriately in publications (The University of Michigan School of Education).

The data analysed in that article include results gathered from a sample of 380 students at a public four-year university in the Midwest; 37 classrooms were sampled, covering 14 subject domains and five disciplines including natural science, humanities, social science, computer science and foreign languages (Pintrich et al., 1991). Based on the data from their sample of 380 students, the authors completed a series of statistical tests to determine the reliability and validity of their instrument (Artino, 2005). To determine the utility of both the theoretical model and the operationalisation of the MSLQ scales, they first conducted two confirmatory factor analyses (Artino, 2005), for the set of motivational items and the set of learning strategies items; the outcomes indicated that the MSLQ has a reasonable validity factor (Artino, 2005).

After the factor analyses, the authors examined the internal consistency estimates of reliability (Cronbach's Alpha) and zero-order correlations among the different motivational and cognitive scales. Overall, these results suggest that the MSLQ had fairly good internal reliability (Artino, 2005). With respect to the zero-order correlations between the different scales, they were also relatively robust and suggest that the scales were valid measures of the motivational and cognitive constructs (Pintrich et al., 1993 as cited in Artino, 2005). In order to add to the validity of the scale, the MSLQ sub-scales were correlated with students' final course grades and the results were in the expected direction, which suggests that the sub-scales show sound predictive validity (Artino, 2005). Further illustration about the reliability of MSLQ in the context of this study will be provided in the results chapter.

Rationale for using (MSLQ) in my study

I used the MSLQ as a quantitative instrument to help me address the first research sub-question:

> **Which aspects of self-regulated learning are more apparent on a blended learning course?**

This is for many reasons. First, the MSLQ has been used in numerous research studies and has proved to be a reliable and useful tool that can be adapted for researchers, instructors and students (Duncan & McKeachie, 2005; Kiliç-Çakmak, 2010; Liu, Lin, Jian, & Liou, 2012; Shen & Liu, 2011; Taylor, 2012). Second, it has been used by hundreds of researchers worldwide and translated into many languages, including Arabic (Artino, 2005; Duncan & McKeachie, 2005). Third, flexibility is a feature; for instance, the 15 scales on the MSLQ may be used together or singly. It is designed to be modular and to fit the needs of the researcher or instructor (Artino, 2005; Duncan & McKeachie, 2005). Given the exploratory nature of this study, I will adopt all 15 scales on the MSLQ (Kiliç-Çakmak, 2010). It is a convenient instrument since, as mentioned previously, it was designed to be conducted in class. It is different from other study skills self-assessment tools such as the Learning and Study Strategies Inventory which assesses students' learning strategies and attitudes toward learning in general (Artino, 2005) in that it covers many more aspects of the learning (i.e. the motivational aspects). This will be appropriate for my research since I am exploring how male learners regulate their own learning from three main aspects: motivation, cognitive and

metacognitive and behavioural (Pintrich et al., 1991). As mentioned, the MSLQ has a manual illustrating the use of the questionnaire (Pintrich et al., 1991), and this makes it convenient and easy for the researcher to manage. Finally, because the instrument is based on the constructivist, social cognitive model, I may assume that students' responses to the questions may vary as a function of different courses, so the same individual might report different levels of motivation or strategy use depending on the course (Duncan & McKeachie, 2005). Many challenges have been reported during use of the MSLQ; the following sub-section will illustrate some of these.

Limitations of MSLQ

As with any research instrument, there are a number of issues associated with MSLQ. First, there are relatively low internal reliability values on some of its sub-scales due to many factors, for example the small number of items that make up every sub-scale (i.e. the three lowest values of the sub-scales consist of only four items (Artino, 2005). In addition, some of the aspects measured by the MSLQ are naturally difficult to pin down, such as goal orientation (Artino, 2005). It is emphasised that it is essential to keep the sub-scale as short as possible, since the MSLQ measures so many different constructs (Artino, 2005). Further, as with any self-report instrument, the major concerns are questions of reliability and validity. For instance, it is suggested in the context of self-regulated learning that 'traditional measures of the stability aspect of reliability are difficult to use for instruments that are intended to tap into constructs that are context dependent' (Duncan & McKeachie, 2005, p. 124). This emphasises the importance of exercising caution when interpreting the results from self-report measures of motivation and learning strategies (Duncan & McKeachie, 2005) as well as triangulating the data by using different research instruments, such as interviews (Groot, 2002; Park & Sperling, 2012).

With regard to validity, social desirability bias is one of the significant threats to the construct validity of all self-report instruments (Artino, 2005). The authors of the MSLQ conclude that when measuring response bias there was no significant variance and did not affect their results (Artino, 2005). Conversely, it was acknowledged that using actual observations or indicators to determine strategy use would provide better construct validity than would a self-report questionnaire such as the MSLQ (Duncan & McKeachie, 2005). However, a self-report of strategy use can still help us to determine,

at a more macro level, whether cognitive or metacognitive strategy use is taking place (Duncan & McKeachie, 2005). For example, a study conducted by Duncan and McKeachie (2005) found that three major aspects of metacognition, namely planning, monitoring and regulating, do not load as separate factors in factor analysis but into a single factor.

To sum up, the MSLQ is considered to be 'an efficient, practical, and ecologically valid measure of students' motivation and learning strategies' (Duncan & McKeachie, 2005, p. 124). Although the MSLQ has measurement limitations, as has any self-report instrument, it is concluded that it represents a practical tool for measuring student motivation and use of learning strategies in the classroom (Duncan & McKeachie, 2005). In addition, as Credé and Phillips (2011, p. 345) conclude:

> The MSLQ is based on important theoretical insights into the nature of learning and the determinants of academic performance. Despite some of the identified psychometric problems, we believe it to be an important tool for educational researchers and practitioners, particularly when paired with measures designed to assess stable student attributes and behaviours.

3.5.2 Interviewing process in this research

It is essential for the researcher to be prepared before the actual interview (Kajornboon, 2005). Therefore, in my study different actions were performed before and during the sessions. First, I wrote a list of all the information required from the interviewees, determining what was needed from each. Second, I established a protocol to guide the questions to be asked in the interviews. Third, I scheduled the interviews at convenient times and at locations where the interviewees felt comfortable discussing potentially delicate topics (WBI Evaluation GROUP, 2007).

During the interview sessions, I made sure that the interviewees had a clear idea about why they had been asked, basic information about the reason for the interview and the research project of which it is a part, with an idea of the estimated duration of the interview (Kajornboon, 2005). I took careful notes in addition to audio recording each interview in order to verify my notes after the interview finished. Furthermore, I reviewed the notes immediately after the session to ensure that I had accurately captured all the relevant information. Finally, I related the outcomes from each interview to other data resources to verify the findings (WBI Evaluation GROUP, 2007).

The type of interview in relation my research

Based on the level of structuring, an interview may be divided into three categories. First there is the structured interview, also called a standardised interview. In this type of interview the interviewees are asked the same questions. Second is the semi-structured interview, which is non-standardised and is usually used in qualitative analysis. Finally, unstructured interviews offer a relatively a flexible method; each interviewee is different, and they are asked to speak openly and give as much information as they can (Kajornboon, 2005; Zhang & Wildemuth, 2009). Gray (2004) added another two types: focused interviews, based upon the previous responses of the interviewee in order to probe certain issues in more depth, and informal conversational interviews in which questions are generated spontaneously as the interview progresses.

The choice of an interview technique depends mainly on the aims and objectives of the research (Gray, 2004). Therefore, in my research project a semi-structured interview was employed at the end of the blended learning course. This type of interview allowed me to achieve two main advantages: I prompted and probed deeper into the given situation during the interview session, and I paraphrased and illustrated questions if respondents were unclear about the questions (Kajornboon, 2005). Further discussion about the rationale for and limitations of using the interview in this study will be presented in the following sub-section.

Rationale for using interviews

I used the interview as a qualitative research instrument for several reasons.

First, the interview is best used when conducting an exploratory inquiry (Gray, 2004), and my study may be largely considered as exploratory research as it involves the exploration of the different aspects of self-regulated learning that occur among learners on a blended learning course at King Khalid University. These aspects include two main dimensions. The first is an examination of motivational learning aspects among learners on blended learning courses at King Khalid University, which include a value component (i.e. intrinsic goal orientation, extrinsic goal orientation and task value, an expectancy component (control of learning beliefs, self-efficacy for learning and performance), and an effective component (i.e. test anxiety). The second is an

examination of the different types of learning strategies among learners on a blended learning course at King Khalid University. This will include identification of the occurrence of themes of cognitive and metacognitive strategies (i.e. rehearsal, elaboration, organisation, critical thinking and metacognitive self-regulation) and the resource management strategies (i.e. time and study environment, effort regulation, peer learning and help seeking). Therefore, I needed to collect rich and thick data from the experiences of the learners attending such a blended learning course, and the interview is an excellent medium for capturing stories about learning experiences during a blended learning course (WBI Evaluation GROUP, 2007). Such data were obtained by conducting an in-depth interview with the participants about what actually happened during their study for a blended learning course and why it happened (Boyce & Neale, 2006).

Second, interviews provided me with much more detailed information than is available from other data collection methods such as surveys (Boyce & Neale, 2006). Third, Gray (2004) suggests that the interview is appropriate when the research is on a relatively small scale, since interviewing large samples can be both expensive and time consuming; because the time for my field study was limited and the number of participants in my study is relatively small (i.e. 20 students), I thought it best to use interview as the main qualitative research instrument. Fourth, unlike questionnaires, queries arising during the interview are clarified immediately (Gray, 2004). This feature enhanced the quality of the response outcomes. Fifth, using interviews provided me with an opportunity to follow-up issues that emerged from the other research instruments used in my project such as the pilot study or survey (Cohen et al., 2000). Sixth, the interview provided me with a more relaxed environment during data collection, since participants may have felt more confident having a conversation with me than filling out a survey (Boyce & Neale, 2006). Seventh, interviews gave me an opportunity to have a more intensive discussion and to ask follow-up questions, so the individuals offered information in interviews that they would not in a group context (WBI Evaluation GROUP, 2007). Finally, one of the most important advantages of using interviews for my research is that I was able to observe the non-verbal behaviour of interviewees (WBI Evaluation GROUP, 2007).

Limitations of interview in relation to my research

When conducting interviews for my study, it was essential for me to be aware of the limitations of such a research instrument. First, the interview is prone to bias, which refers generally to the idea of there being differences between the truth and the answer that a respondent gives to the interviewer (Boyce & Neale, 2006). I applied what as suggested by Gray (2004):

> One way of avoiding, or at least minimizing, interviewer bias is to require all interviewers to follow the same protocol. Hence, a set of guidelines might be drawn up which ask the interviewer to read the questions exactly as they are written, to repeat a question if asked, to accept respondent's refusal to answer a question without any sign of irritation, and to probe in a non-directive manner. (p. 220)

Moreover, using interviews for data collection can be a time-intensive evaluation activity as it involves conducting interviews, transcribing them and analysing the results. To overcome this issue, when planning for data collection I gave sufficient time for the interview process, including the interview itself, transcribing the audio and analysing the data (Boyce & Neale, 2006). In addition, the results of multiple interviews may contradict each other or be difficult to analyse (WBI Evaluation GROUP, 2007). In order to address such a limitation, I ensured that all the questions were sufficiently clear to all interviewees and encouraged participants to ask about any unclear questions. Finally, the outcomes from in-depth interviews cannot be generalised because small samples were chosen and random sampling methods not used (Boyce & Neale, 2006); I remained aware of these issues when writing up my findings.

Developing the interview items from guidelines to the MSLQ questionnaire

Cohen et al. (2000) emphasise that designing an interview begins at the point where the purpose of the research is decided, thus it can start when outlining the theoretical basis of the study, for example. The next step is to translate general goals into more specific objectives, which is the most important step toward producing the right kind of data needed to address the research problem (Cohen et al., 2000). Accordingly, in order to design an interview schedule it is essential to translate the research objectives into questions that make up the main body of the schedule and to ensure that this reflects what the study is aiming to explore (Cohen et al., 2000).

It is suggested that choosing the right question format requires the consideration of many factors, such as the objectives of the interview, the nature of the subject matter,

whether the interviewer is dealing in facts, opinions or attitudes, and the kind of information the respondent can be expected to have (Cohen et al., 2000). By considering such aspects, the researcher will be able to decide whether to apply open and/or closed questions, direct and/or indirect questions, specific and/or non-specific questions, and so on (Cohen et al., 2000).

The qualitative part of the study was designed to complement and triangulate the quantitative aspect. Therefore, I developed the interview items according to the MSLQ main and sub-items as well to understand the research question from a micro level (see Tables 7–9). In other words, this study used the semi-structured interview as a qualitative data collection method to achieve the following main goals:

1) To understand in depth how male learners at King Khalid University motivate themselves on a blended learning course. This will be addressed by answering the second research sub-question:

   How do male learners at King Khalid University motivate themselves on a blended learning course?

and will be guided by the following questions:

a) What makes you engaged in a learning task on this course?
b) What do you think about the learning tasks on this course?
c) How do you describe your own efforts to learn on this course?
d) How do describe your expectations about your ability to succeed on this course?
e) How do you assess your ability to master a task on this course?
f) How do you describe your thinking about having a test on this course?
g) How do you describe your feeling when you have a test on this course?

2) To understand in depth the way in which male learners at King Khalid University use their learning strategies on a blended learning course. This will be addressed by answering the third research sub-question:

How do male learners at King Khalid University use their cognitive and metacognitive abilities on a blended learning course?

and will be guided by of the following questions:

a) How do you learn new concepts on this course?
b) How do you store information on this course into long-term memory?
c) How do you select the appropriate information and construct connections among the information to be learned on this course?
d) How do you normally make decisions to solve learning problems related to new situations that you encounter during your study for this course?
e) How do you usually plan for your learning task?
f) How do you normally judge your learning outcomes after accomplishing a learning task on this course?
g) What normally do you do if you have not learned what you should learn from a learning task on this course?

3) To understand in depth the way in which male learners at King Khalid University manage their learning resources on a blended learning course. This will be addressed by answering the third research sub-question:

How do male learners at King Khalid University manage their learning resources on a blended learning course?

and will be guided by the following questions:

a) How do you normally manage your learning time in this course?
b) How do you normally manage your learning environment in this course?
c) What do you normally do when you encounter distractions and uninteresting learning tasks in this course?
d) How do you usually collaborate with your peers in this course?
e) What do you normally do when you face any difficulties in your study for this course?

Table 7: Interview questions guide for the second research sub-question

Sub-questions	Themes	Interview Questions	Explanatory Notes[4]
How do learners at King Khalid University motivate themselves on a blended learning course?	Intrinsic and Extrinsic goal orientation	1. Why are you engaging in the learning task in this course?	Intrinsic goal orientation refers to the student's perception of the reasons why they are engaging in a learning task. On the MSLQ, goal orientation refers to student's general goals or orientation to the course as a whole. Intrinsic goal orientation concerns the degree to which the student perceives themself to be participating in a task for reasons such as challenge, curiosity, mastery. Having an intrinsic goal orientation toward an academic task indicates that the student's participation in the task is an end in itself, rather than participation being a means to an end. Extrinsic goal orientation complements intrinsic goal orientation, and concerns the degree to which students perceive themselves to be participating in a task for reasons such as grades, rewards, performance, evaluation by others and competition. When one is high in extrinsic goal orientation, engaging in a learning task is the means to an end. The main concern the student has relates to issues not directly related to participating in the task itself (such as grades, rewards, comparing one's performance to that of others). Again, this refers to the general orientation to the course as a whole.
	Task value	2. What do you think about the learning tasks in this course?	Task value differs from goal orientation in that task value refers to the student's evaluation of how interesting, how important, and how useful the talk is ('What do I think of this task). Goal orientation refers to reasons why the student is participating in the task ('Why am I doing this?').High task value should lead to more involvement in one's learning. On the MSLQ, task value refers to students' perceptions of course material in terms of interest, importance, and utility.
	Control of learning beliefs	3. How would you describe your efforts to learn in this course?	Control of learning refers to students' beliefs that their efforts to learn will result in positive outcomes. It concerns the belief that outcomes are contingent on one's own effort, in contrast to external factors, such as the teacher. If students believe that their efforts to study make a difference in their learning, they should be more likely to study more strategically and effectively. That is, if the students feel that they can control their academic performance, they are more likely to put forth what is needed strategically to effect the desired changes.
	Eexpectancy	4. What is your expectation of ability to succeed in this course?	Expectancy for success refers to performance expectations and relates specifically to task performance.
	Self-efficacy	5. How would you assess your ability to master a task in this course?	Self-efficacy is a self-appraisal of one's ability to master a task. Self-efficacy includes judgements about one's ability to accomplish a task as well as one's confidence in one's skills to perform that task.
	Test anxiety (worry component)	6. How would you describe your thinking about tests on this course?	Test anxiety has been found to be negatively related to expectancies as well as academic performance. Test anxiety is thought to have two components: a worry, or cognitive component and an emotionality component. The worry component refers to negative thoughts that disrupt performance.
	Test anxiety (emotion component)	7. How would you describe your feelings when you have a test on this course?	The emotionality component refers to affective and physiological arousal aspects of anxiety.

4) According to (Pintrich et al., 1991).

Table 8: Interview questions guide for the third research sub-question

Sub-questions	Themes	Interview Questions	Explanatory Notes
How learners at King Khalid University use their cognitive and metacognitive abilities on a blended learning course?	Rehearsal	8. How do you learn new concepts in this course?	Basic rehearsal strategies involve reciting or naming items from a list to be learned. These strategies are best used for simple tasks and activation of information in working memory rather than acquisition of new information in long-term memory. These strategies are assumed to influence the attention and encoding processes, but they do not appear to help students construct internal connections among the information or integrate the information with prior knowledge.
	Elaboration	9. How do you store information in this course into long-term memory?	Elaboration strategies help students store information into long-term memory by building internal connections between items to be learned. Elaboration strategies include paraphrasing, summarising, creating analogies and generative note taking. These help the learner integrate and connect new information with prior knowledge.
	Organisation	10. How do you select the appropriate information and construct connections among the information to be learned in this course?	Organisation strategies help the learner select appropriate information and also construct connections among the information to be learned. Examples of organising strategies are clustering, outlining and selecting the main idea in reading passages. Organising is an active, effortful endeavour and results in the learner being closely involved in the task. This should result in better performance.
	Critical thinking	11. How do you normally make decisions to solve learning problems related to new situations you encounter during study for this course?	Critical thinking refers to the degree to which students report applying previous knowledge to new situations in order to solve problems, reach decisions, or make critical evaluations with respect to standards of excellence.
	Planning	12. How do you usually plan for your learning task?	Planning activities, such as goal setting and task analysis, help to activate, or prime, relevant aspects of prior knowledge that make organising and comprehending the material easier.
	Monitoring	13. How do you normally judge your learning outcomes after accomplishing a learning task in this course?	Monitoring activities include tracking of one's attention as one reads, and self-testing and questioning: these assist the learner in understanding the material and integrating it with prior knowledge.
	Regulating	14. What normally do you do if you didn't learn what you should from a learning task?	Regulating refers to the fine-tuning and continuous adjustment of one's cognitive activities. Regulating activities are assumed to improve performance by assisting learners in checking and correcting their behaviour as they proceed on a task.

Table 9: Interview Questions Guide for fourth research sub-question

Research Sub-questions	Themes	Interview Questions	Explanatory Notes
How do learners at King Khalid University use their learning resources on a blended learning course?	Time management	15. How do you normally manage your learning time in this course?	Time management involves scheduling, planning, and managing one's study time. This includes not only setting aside blocks of time to study, but the effective use of that study time, and setting realistic goals. Time management varies in level, from an evening of studying to weekly and monthly scheduling.
	Study environment	16. How do you normally manage your learning environment in this course?	Study environment management refers to the setting where the student does their class work. Ideally, the learner's study environment should be organised, quiet, and relatively free of visual and auditory distractions.
	Effort regulation	17. What do you do normally when you encounter distractions and uninteresting learning tasks in this course?	Self-regulation also includes students' ability to control their effort and attention in the face of distractions and uninteresting tasks. Effort management is self-management, and reflects a commitment to completing one's study goals, even when there are difficulties or distractions. Effort management is important to academic success because it not only signifies goal commitment, but also regulates the continued use of learning strategies.
	Peer learning	18. How do you usually collaborate with your peers in this course?	Collaborating with one's peers has been found to have positive effects on achievement. Dialogue with peers can help a learner clarify course material and reach insights they may not have attained on their own.
	Help seeking	19. What normally do you do when you face any difficulties in your study for this course?	Another aspect of the environment that the student must learn to manage is the support of others. This includes both peers and instructors. Good students know when they do not know something, and are able to identify someone to provide them with some assistance. There is a large body of research that indicates that peer help, peer tutoring, and individual teacher assistance facilitate student achievement.

3.6 Ethical Considerations and Sample Group

Research ethics refers to 'moral principles guiding research from its inception through to completion and publication of results' (British Psychological Society, 2010, p. 5). It helps us to maintain the things we value (B. Johnson & Christensen, 2010). This section addresses the ethical process that outlines my access to the research setting and participants.

3.6.1 Ethical considerations

First, the University of Southampton Ethics Committee (reference number: 5569) (see Appendix L) approved the research. It has been emphasised that people other than the individuals who constitute the primary data sources should be included in the consideration of the ethics of research (British PsychologicalSociety, 2010). Accordingly, since this study was conducted in King Khalid University in Saudi Arabia, in order for me to have an access to research settings I contacted the Deanship of Distance Learning and E-learning to explain the purpose of my study, since this body is responsible for managing the blended learning courses at the university. A consent letter allowing the researcher to access the research settings was received (see Appendix K).

As informed consent is an essential of ethical principles (Howe & Moses, 1999) and is based on the basic idea that 'it is up to research participants to weigh the risks and benefits associated with participating in a research project and up to them to then decide whether to take part' (Howe & Moses, 1999, p. 24). This is possible only if they are informed about and understand what participation in the research means (Howe & Moses, 1999). In the quantitative part of this study, a cover sheet to the questionnaire gave the purpose of the study. In addition, I demonstrated beneficial outcomes from responding to the questionnaire in relation to blended learning in Saudi universities and at King Khalid University. Finally, I drew attention to the fact that participation in the survey was voluntary and that they were free to withdraw at any point. In the qualitative part of the study, participants were asked to sign a consent form that confirmed their understanding that there was no compulsion for them to participate in this research project and that, if they did choose to participate, they might withdraw their participation at any stage. In addition, the consent form included their right to refuse permission for publication of any information about them and confirmed that any

recorded information that they provided would be used solely for the purpose of this research project, which might include publication. At the conclusion of the interviews, participants were informed that they were complete and asked whether they were still happy for the conversation to be used as part of the research. A local point of contact was provided, should the participant wish to make contact, to make this opportunity accessible to them, and they were assured that the researcher would be informed if they decided later that they would prefer to withdraw their consent.

Confidentiality and privacy are another central principle in the traditional conception of the ethical treatment of social research participants (Howe & Moses, 1999). The concept of confidentiality is similar to privacy in terms of the protection of personal information (Hughes, Hunter, Sheehan, Wilkinson, & Wrigley, 2010). It is the idea that participants disclose to the researcher information that they regard as confidential or secret, and that the researcher undertakes not to reveal this information to anyone who does not already possess it (Hughes et al., 2010). In this study confidentiality was confirmed. In the quantitative part of the study, a cover sheet to the questionnaire gave the purpose of the study and confirmed that there would be no questions asked about students' identity and that strict confidentiality was ensured. In the qualitative study, the consent form confirmed that all the information that the participants gave would be treated as confidential and that the researcher would make every effort to preserve their anonymity. Further information about how the study arrived at the final sample in the qualitative and quantitative part of the study will be provided in the following sub-sections.

3.6.2 Sample group for the quantitative study

Since this study adopts the mixed methods approach to address the main research question and sub-questions, participants in both the quantitative and qualitative aspects of the study were identified, approached and recruited from two perspectives. In the quantitative part of the study, given that the MSLQ is designed to focus on the course level (Duncan & McKeachie, 2005), sampling for the questionnaire was conducted according to the following sequence. First, due the large number of blended learning courses at the University, as illustrated previously, I sought to set criteria for the elected blended learning course. These included the following: a) the number of students enrolled in the course, since the more enrolment in a course, the more there will be

participation in the quantitative study; b) the ratio of blending between the online learning and the face-to-face sessions, and since the ratio of blending is on three levels at King Khalid University, as illustrated previously. I required half online learning and half face-to-face, since this ratio would provide the researcher with space to understand how learners regulate their learning in both learning situations.

Second, after receiving permission from the Deanship of E-learning and Distance Learning to implement my study (see Appendix K), I conducted a meeting with the member of staff in charge of the blended learning courses at King Khalid University. During the meeting I explained the criteria for the blended learning course that I was looking for. Third, the course SALAM 113 was selected because it met the criteria for the number of enrolled students, at around a thousand, and the ratio was half online learning and half face-to-face. Finally, after receiving a schedule of the sessions, I distributed three hundred questionnaires among the male learners attending that blended learning course. Conducting the study in such a general requirement module provided me with a large number of participants, as well as a range of majors and departments on the module. A total of 267 questionnaires (89%) was received from the participants on that course.

3.6.3 Sample group for the qualitative study

The interview part of the study was designed to obtain information about the way that participants regulated their learning on this blended learning course, based on their own experiences and perceptions. Therefore, it was essential for interviewees to participate on their own initiative. At the end of the questionnaire sheet in the quantitative part of the study participants were asked to provide their contact number if they wished to take part in the interview sessions. The initial number of participants who gave their contact numbers was 25 male students. The final number of participants was 20, as five chose to withdraw after communication with the researcher. The participants in the interviews were among the students who participated in the quantitative part of the study. The researcher contacted each to arrange a place for the interview to suit them. Finally, the interview sessions were scheduled for a time to suit the participants.

Because the SALAM 113 is a general elective requirement module, participants represented various subject majors as well as different academic levels. The participants included students from: Chemistry, Education, Arabic Language, Biology, Business

Management, Accounting, Electrical Engineering, e-Marketing, Medicine, Physics and Mathematics. The academic level varied from Level-1 to Level-6. These variations gave me the advantage of listening to a relatively wide range of learners' experiences and perceptions from different academic levels and majors. The variation was on a random basis and this study was designed to explore the way in which male students participating on a blended learning course in one of the universities in Saudi Arabia regulate their own learning, regardless of their academic major or level (Appendix N illustrates the academic majors and levels of participants).

In the interview sessions, the students were given an information sheet to illustrate the purpose of the study and the interview procedure that they would be engaged in, and were given the opportunity to withdraw their participation at any point. The interview took place at a time and quiet location both convenient and comfortable for the students. Over the course of thirty to forty minutes, a series of topics was discussed involving reflection on their experience of regulating their learning on a blended learning course; the interviews were audio recorded.

Reflecting on the length of the interview undertaken, I used a semi-structured interview to address three of the research sub-questions (i.e. Sub Q2, Sub Q3 and Sub Q4), so each was guided by further interview questions, as illustrated in Tables 7, 8 and 9. At the beginning of the interview participants were informed that it would last approximately 30 minutes. Although each participant was asked 19 interview questions, there were no negative implications in terms of data richness. The estimated time was based on the conclusions of the pilot study, as explained later in this chapter. Moreover, although the average duration of the interviews was 30 minutes, participants varied in their sessions. For instance, the longest interview lasted for 45:34 minutes (i.e. PART-10) and the shortest interview took just 20:27 minutes (i.e. PART-17). This variation was due to the responses provided by the learners to the interview items (see Appendix N: Academic majors, levels and the duration of participants in the interview sessions).

3.7 Pilot Study

According to Barker, Pistrang, and Elliott (2002), pilot studies are 'small-scale try-outs of various aspects of your intended protocol' (p. 42). The aim of a pilot study is to check the instruments and look for a solution for any issues (Russell, 2010). It can be

conducted with colleagues or friends in the role of participants as well as with people closer to the target population of the study (Barker et al., 2002). It is emphasised that:

> It is rarely possible to design a study in your armchair and then translate it straight into action. You always need to test out procedures, measures, and design. Some things that look good on paper just do not work in practice: they are not understandable to participants or they do not yield useful information. It is also worthwhile performing a few crucial analyses on the pilot data to try out coding and analysis procedures and to see whether the data can actually be used to answer the research questions. A few hours here can save you weeks or months of anguish later on. (Russell, 2010, p. 43)

The main goal of conducting the pilot study was to ensure the reliability and the validity of the instruments and to gain a broad evaluation of the suitability of both the questionnaire and the interview. Given that this study adopts a mixed methods approach (quantitative and qualitative), the pilot study was conducted in two main cycles. The first involved piloting the questionnaire and the second piloting the interview. In addition, each cycle consisted of several phases (see Figure 14). Further illustration of these two stages will be provided in the following sub-sections.

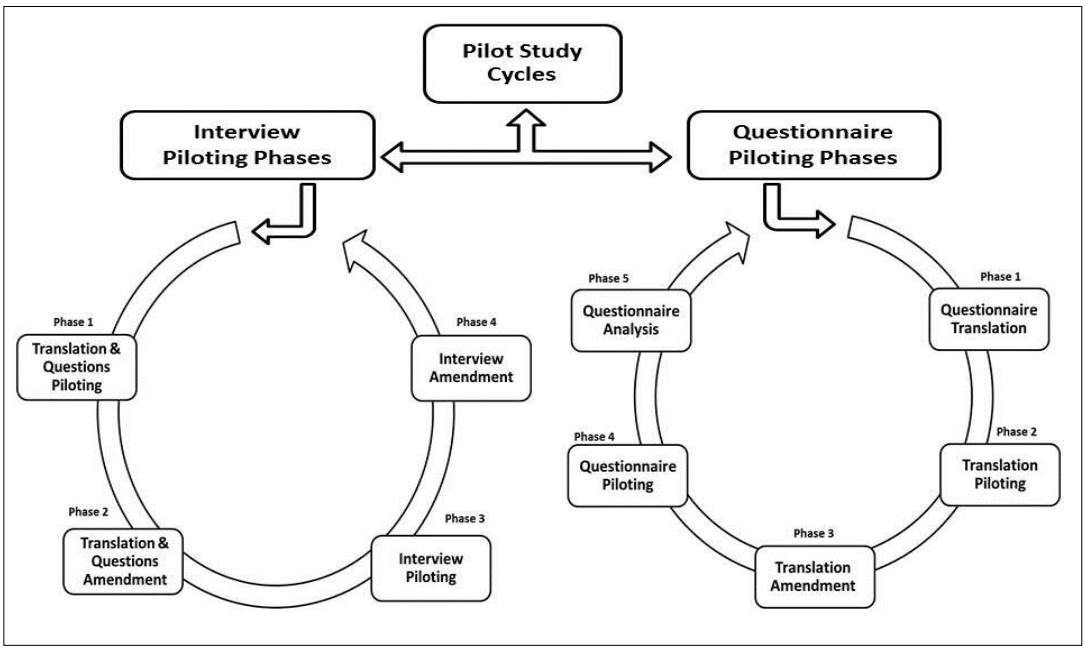

Figure 14: Two main cycles of pilot study

3.7.1 Piloting the questionnaire

In the quantitative part of this study, I used the MSLQ (Pintrich et al., 1991) to address the first research sub-question:

Which aspects of self-regulated learning are more apparent on a blended learning course?

The pilot study of the questionnaire was completed through five main phases (see Figure 15): first, since the questionnaire is in the English language, I needed to translate it into Arabic to make it easier for participants to read. In the second phase, the Arabic translation was piloted by two lecturers who were teaching English language; Table 10 was used for that pilot.

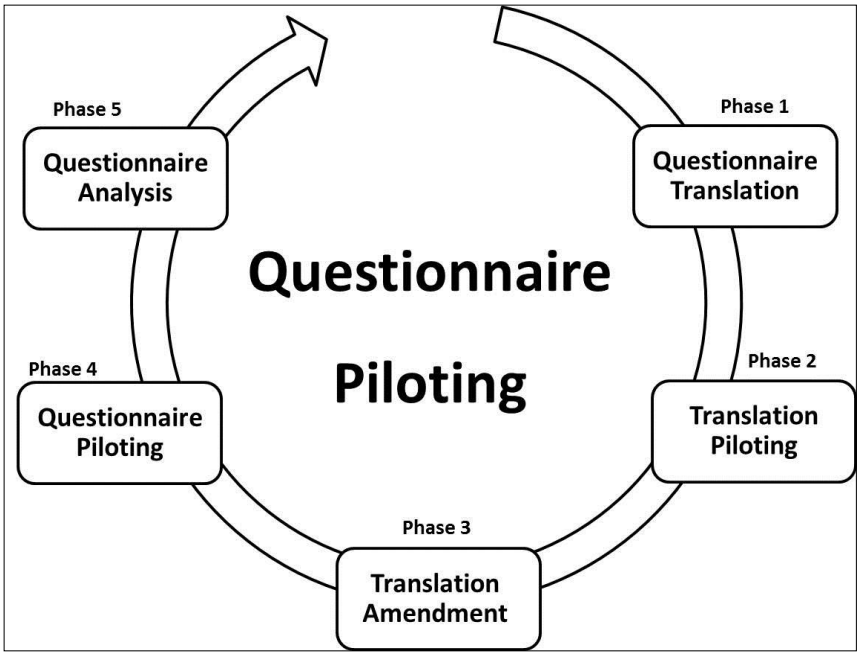

Figure 15: Questionnaire piloting

Table 10: Table used for piloting translation of the questionnaire

N	Elements in English	Elements translation in Arabic	Experts' opnions			The suggested amendments
			Agree	Disagree	To some extent	

Outcomes from the piloting of the second phase were used to improve the translation in the third phase and the following items were modified: Section 1: (1, 3, 6, 7, 8, 9, 13, 16, 19, 26, 27, 29, 30) and Section 2 (38, 39, 43, 47, 57, 64, 66, 70, 71, 81). In the next phase, the questionnaire was distributed to 15 undergraduate students enrolled on a blended learning course at King Khalid University. Finally, in the fifth phase the internal reliabilty of the questionnaire was confirmed by Cronbach's Alpha scale, and the dimensions scored between 0.827 for the cognitive and metacognitive items and

0.54 for the resource management items, while the overall items obtained 0.745, which is considered high (see Table 11). Thus, the correlation across the dimensions was reliable. The results were as follows:

Table 11: Reliability coefficient analysis scale Alpha of each dimension

Dimensions	Number of items	Alpha coefficient
Motivation	31	0.689
Cognitive and metacognitive	31	0.827
Resource management	19	0.54
Total	81	0.745

3.7.2 Piloting the interview

In the qualitative part of the study, I attempted to explore in depth the following research sub-questions, as mentioned previously:

> **How do learners at King Khalid University motivate themselves on a blended learning course?**
>
> **How do learners at King Khalid University use their cognitive and metacognitive abilities on a blended learning course?**
>
> **How do learners at King Khalid University manage their learning resource on a blended learning course?**

The pilot study of the interview was completed in four main phases (see Figure 16). In the first, because the interview questions were adapted from the MSLQ by Pintrich et al. (1991) and translated into Arabic, I needed to pilot the interview questions from two main perspectives: the validity of the questions according to the explanatory notes, and the accuracy of the Arabic translation. Therefore, the questions were distributed to three academic lecturers who spoke English in Learning Technology so they could review the questions from these two perspectives; the following table was used for the review.

Aspects	Interview questions	Explanatory notes	Experts' opinons			The suggested amendments
			Agree	Disagree	To some extent	

Table 12: Table for piloting interview questions

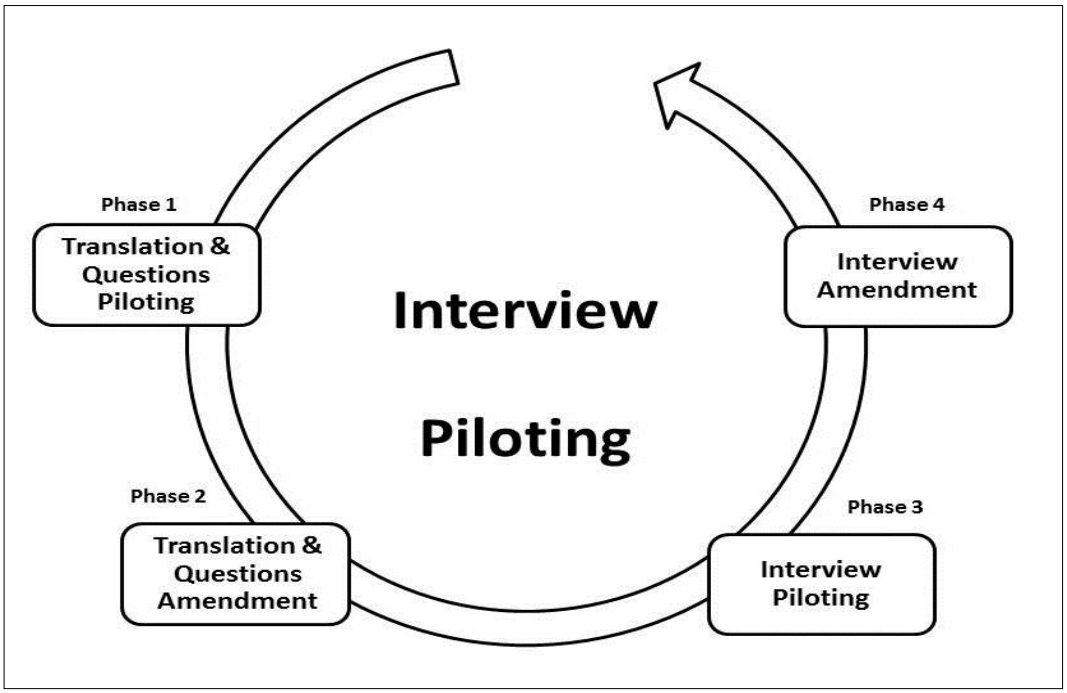

Figure 16: Interview piloting

In the second phase the following interview questions were modified: Section 1 (Q2, Q4, Q5, Q6, Q7), Section 2 (Q8, Q10, Q11), Section 3 (Q12, Q14) and Section 4 (Q15, Q16, Q17, Q18, Q19). In the third phase interviews were conducted with three students who had been questionnaire participants and agreed to take part in the interview; each lasted 27 to 30 minutes and the recommendations are as follows:

1) The interview began with the learning strategies sections. It was suggested to start instead with the motivation section, so the sequence of the questions would complement the questionnaire.
2) Although overall the interviews offered good, thick data that could help in addressing the research sub-questions, it was clear from the transcripts that the researcher sometimes elaborated when presenting some questions and interrupted the interviewee before completion of the idea, so it is important in the main fieldwork to give the interviewee more space and to allow them to express their ideas fully.

3.8 Data Analysis Framework

3.8.1 Prototype of mixed method design in this study

There are many prototypical versions of mixed method design such as the convergent parallel design, the explanatory sequential design, the explanatory sequential design, the exploratory sequential design, the transformative design and the multiphase design (Creswell & Clark, 2010). This study adopted the convergent parallel design, which refers to the idea of applying both the quantitative and qualitative instruments concurrently during the same phase of the research process (Creswell & Clark, 2010). The researcher kept the strands independent during analysis and combined the results during the overall interpretation (Creswell & Clark, 2010)

Therefore, the overall analysis process in my study was conducted according to the following phases (see Figure 17). In Phase 1, both the quantitative and qualitative data were collected in parallel during the same data collection period. In Phase 2, I separately analysed the collected data both quantitatively and qualitatively. The data collected from each instrument were analysed according to the research sub-questions. With regard to Phase 3, in order to have a more complete image of the overall results the outcomes from the previous phase were compared and related to each other. Finally, in Phase 4**,** the results from both instruments were merged during the overall interpretation of the data in order to address the research main question. Phase 3 and 4 are introduced fully in the discussion chapter.

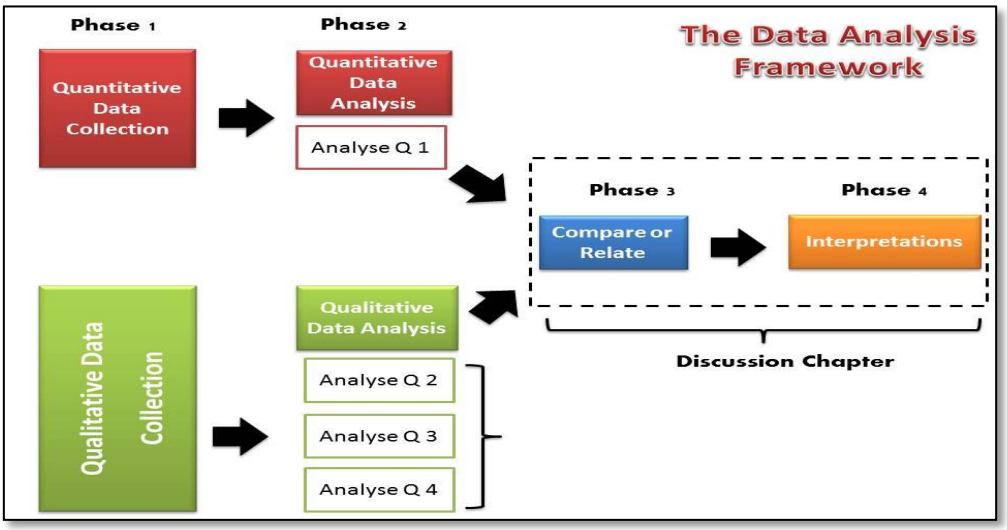

Figure 17: Overall analysis process

3.8.2 Quantitative data analysis process

The quantitative data analysis process was conducted by SPSS at three main levels. First, the questionnaire items were coded in the SPSS software using the item number, the scale and the main aspect (see Appendix E). Second, I analysed and compared the means of the questionnaire items on each scale according to the overall average of the same scale; this assisted me to gain more detailed information on the kind of attributes more apparent among the sample in every sub-aspect. Third, in order to have an understanding of the first research sub-question from a much wider perspective, I analysed the means of each scale according to the total average of the main aspect. At the third level, I conducted an overall comparison of the means of the three main aspects of self-regulation (see Figure 18). However, it is imperative to note that two types of outcomes are reported; the items and scales that scored high (i.e. > 4, according to Pintrich et al. (1991) on the MSLQ individual scales and sub-scales, and the items and scales that scored low (i.e. < 4, according to Pintrich et al. (1991)). Thus, the apparently positive items and scales include all items and scales that gained a high score (> 4) and scored above the average as well, whereas the apparently negative items and scales consist of items and scales that scored a low level (< 4).

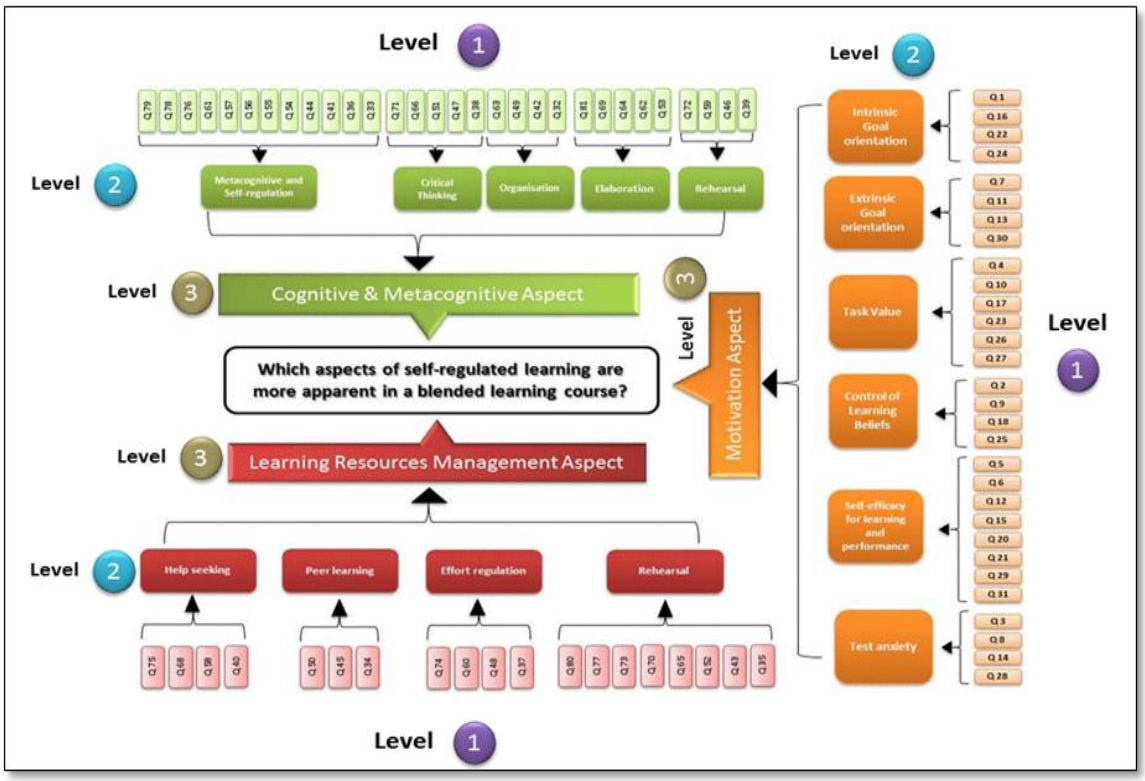

Figure 18: Three levels of the quantitative data analysis process

Scoring and interpreting the MSLQ

All the scales were based on a seven-point scale, and scores from 4 to 7 were considered as a high score, and scores from 1 to 3 were considered as a low score (Pintrich et al., 1991). The only exception is the anxiety scale, where higher scores meant more worry (Pintrich et al., 1991). Scales were constructed by taking the mean of the items that make up that scale (Pintrich et al., 1991). Items named as 'reversed' were reflected before scale construction, so these negatively worded items and their ratings were reversed before computing the individual's score (Pintrich et al., 1991).

3.8.3 Qualitative data analysis procedure

Content analysis is a method of analysing printed, spoken or visual communication messages (Elo & Kyngas, 2008). It aims to build a solid understanding from data in order to provide knowledge, new insights, a representation of facts and a practical guide to action (Krippendorff, 1980). It is a method that may be used with either qualitative or quantitative data and be applied in an inductive and deductive way (Elo & Kyngas, 2008). The deductive content analysis is a theory or model-based analysis, so it moves from the general to the specific (Elo & Kyngas, 2008). This study uses the Pintrich et al. (1991) model of self-regulated learning, therefore the deductive content analysis will be used. Figure 19 shows the units of analysis. Further definitions of these units will be provided in the results chapter.

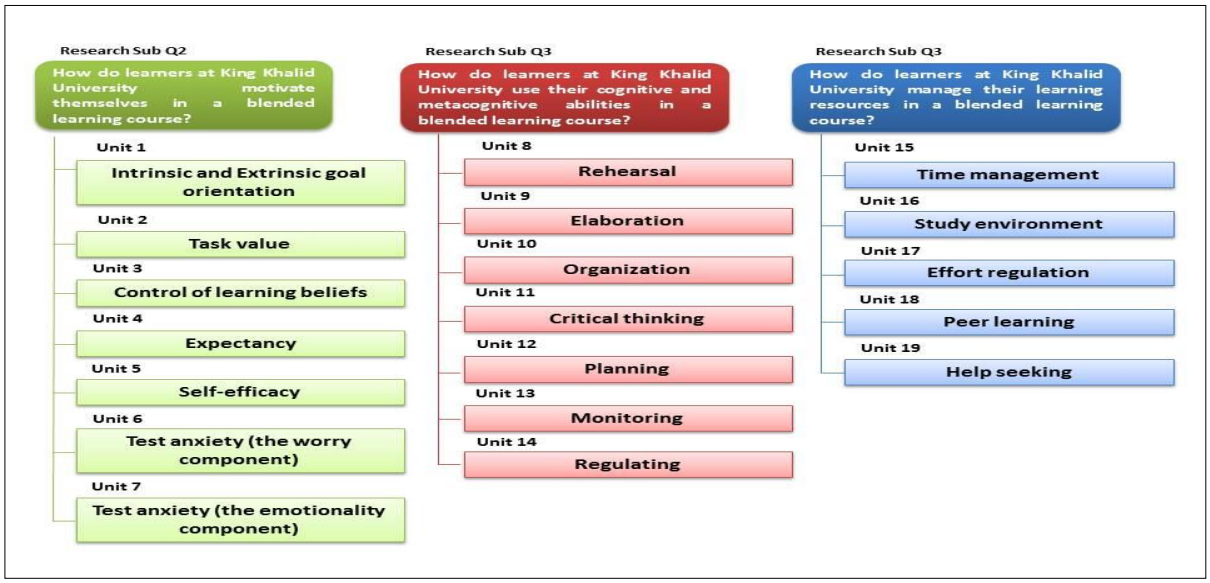

Figure 19: Units of analysis for qualitative analysis

Preparing the data

In order to make the data gathered from the field easier to manage, it was essential for the researcher to prepare the data in two main phases: the transcript phase and the translation phase. First, because the interviews were conducted in Arabic, to make the oral data easier to manage the interviews were transcribed in a written form yet remained in Arabic (see Appendix J). To make sure that the transcripts were accurate and that they did not miss any of the oral information, they were reviewed by the researcher according to the records.

In the second phase, the initial transcript, which was written in Arabic, needed to be translated into English to make it easier to manage with NVivo as a tool for the organisation and management of data, and also because the present study was to be written in English. The main challenge that faced the researcher was to ensure that the data remained as accurate as possible and to ensure that nothing was lost in translation. Therefore, the first versions of translation of the transcripts were reviewed by a specialist in Learning Technology in Najran University who speaks English very well. He was given both the Arabic transcript and its initial English translation. Finally, the outcomes from the revision phase were considered in the final version.

Analysing the data using NVivo software

The final English version of the data was uploaded and analysed using NVivo software (see Appendix M) in the following phases (see Figure 20): first, the transcripts were uploaded to NVivo. Second, the interview answers were grouped according the interview questions (see Figure 21). Third, the interview answers were coded according to themes emerging from the texts. Fourth, the emerging themes were grouped under more general themes. Finally, the overall themes that emerged were reported with quotations from the transcripts. Further illustration of the outcomes from the previous steps will be provided in the findings chapter.

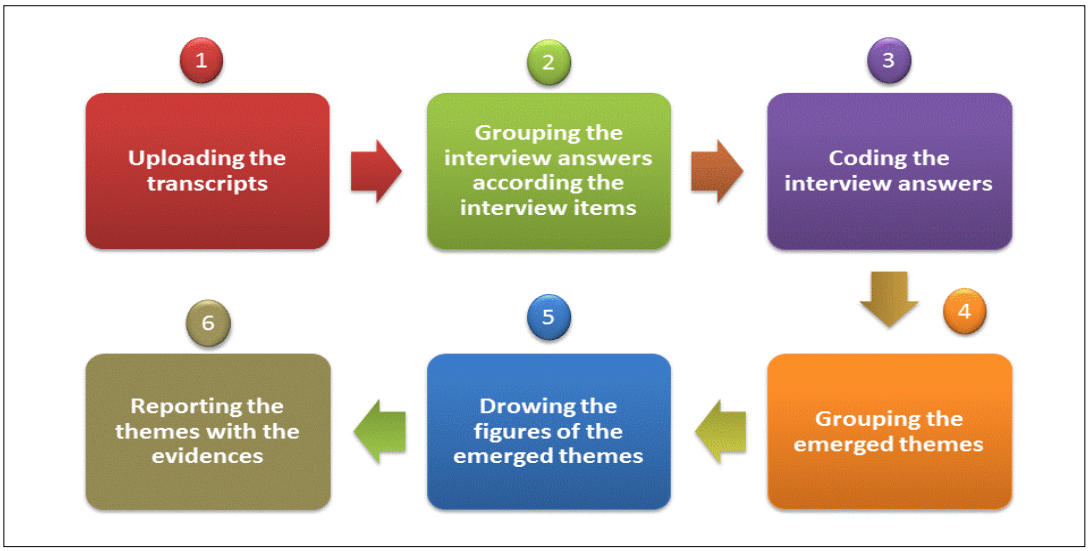

Figure 20: Phases of the NVivo data analysis

Interview participants responses

P20	P19	P18	P17	P16	P15	P14	P13	P12	P11	P10	P9	P8	P7	P6	P5	P4	P3	P2	P1	Q1
P20	P19	P18	P17	P16	P15	P14	P13	P12	P11	P10	P9	P8	P7	P6	P5	P4	P3	P2	P1	Q2
P20	P19	P18	P17	P16	P15	P14	P13	P12	P11	P10	P9	P8	P7	P6	P5	P4	P3	P2	P1	Q3
P20	P19	P18	P17	P16	P15	P14	P13	P12	P11	P10	P9	P8	P7	P6	P5	P4	P3	P2	P1	Q4
P20	P19	P18	P17	P16	P15	P14	P13	P12	P11	P10	P9	P8	P7	P6	P5	P4	P3	P2	P1	Q5
P20	P19	P18	P17	P16	P15	P14	P13	P12	P11	P10	P9	P8	P7	P6	P5	P4	P3	P2	P1	Q6
P20	P19	P18	P17	P16	P15	P14	P13	P12	P11	P10	P9	P8	P7	P6	P5	P4	P3	P2	P1	Q7
P20	P19	P18	P17	P16	P15	P14	P13	P12	P11	P10	P9	P8	P7	P6	P5	P4	P3	P2	P1	Q8
P20	P19	P18	P17	P16	P15	P14	P13	P12	P11	P10	P9	P8	P7	P6	P5	P4	P3	P2	P1	Q9
P20	P19	P18	P17	P16	P15	P14	P13	P12	P11	P10	P9	P8	P7	P6	P5	P4	P3	P2	P1	Q10
P20	P19	P18	P17	P16	P15	P14	P13	P12	P11	P10	P9	P8	P7	P6	P5	P4	P3	P2	P1	Q11
P20	P19	P18	P17	P16	P15	P14	P13	P12	P11	P10	P9	P8	P7	P6	P5	P4	P3	P2	P1	Q12
P20	P19	P18	P17	P16	P15	P14	P13	P12	P11	P10	P9	P8	P7	P6	P5	P4	P3	P2	P1	Q13
P20	P19	P18	P17	P16	P15	P14	P13	P12	P11	P10	P9	P8	P7	P6	P5	P4	P3	P2	P1	Q14
P20	P19	P18	P17	P16	P15	P14	P13	P12	P11	P10	P9	P8	P7	P6	P5	P4	P3	P2	P1	Q15
P20	P19	P18	P17	P16	P15	P14	P13	P12	P11	P10	P9	P8	P7	P6	P5	P4	P3	P2	P1	Q16
P20	P19	P18	P17	P16	P15	P14	P13	P12	P11	P10	P9	P8	P7	P6	P5	P4	P3	P2	P1	Q17
P20	P19	P18	P17	P16	P15	P14	P13	P12	P11	P10	P9	P8	P7	P6	P5	P4	P3	P2	P1	Q18
P20	P19	P18	P17	P16	P15	P14	P13	P12	P11	P10	P9	P8	P7	P6	P5	P4	P3	P2	P1	Q19

Interview questions

Figure 21: Phase 2, grouping the interview responses according to the interview questions

Chapter 4: Findings

This study is to explore in depth how male learners regulate their learning on a blended learning course at King Khalid University. This will be achieved by addressing the following main research question:

> **How do learners regulate their own learning in a blended learning environment at King Khalid University?**

In addition, I applied a mixed method approach to explore the research both quantitatively and qualitatively. In this chapter, I introduce the results from the data analysis both quantitatively and qualitatively. Further illustration will be provided in the following sections.

4.1 Quantitative Data Analysis Results

The quantitative aspect of my research will address the macro level of the study by answering the following sub-question:

> ***Sub Q1:*** **Which aspects of self-regulated learning are more apparent on a blended learning course?**

Appendix E shows the exploratory items adopted to address the first research sub-question.

This section will represent the result of the quantitative part of the study. It will cover the following sub-sections. First, I will report the reliability of the questionnaire by the reliability coefficient analysis scale, Cronbach's Alpha. Second, the scoring and reporting of the MSLQ will be illustrated. Finally, I will introduce and analyse the quantitative data for both of the sub-aspects and the main aspects. It is important to note that for all the items the same number of respondents were obtained (n=267).

4.1.1 Reporting reliability of the questionnaire

The internal reliability of the questionnaire was confirmed by Cronbach's Alpha. First, the motivational sub-scales ranged between (α=.787) for task value sub-scale and (α=.424) for control of learning beliefs; however, the overall alpha score for the motivational aspect is high as (α=.834) (see Table 13). Second, the cognitive and

metacognitive sub-scales ranged from (α=.744) for the elaboration sub-scale to (α=.663) for the organisation sub-scale the overall for the cognitive and metacognitive sub-scales is (α=.913), which is high as well (Table 14). Third, the resource management strategies sub-scales scored between (α=.650) for the peer learning sub-scale and (α=.334) for the effort regulation sub-scale, whereas the overall score for the resource management strategies sub-scales is (α=.697), which is relatively high (see Table 15). Finally, the overall alpha score for the whole questionnaire is (α=.926), which is high (see Table 16).

Indeed, it was noted by Artino (2005) that, although the MSLQ appears to be a highly useful tool, a concern is the relatively low internal reliability values of some of the its sub-scales. He suggests two possible reasons: first, the small number of items that make up each sub-scale—he gives an example from his case (i.e. each of the three sub-scales with the lowest values (.52, .62, and .64) are composed of only four items). The same can be concluded from this study, in which the lowest values (.457, .424, .334 and .501) are composed of only four items. Second, some of the aspects measured by the MSLQ (i.e. goal orientation) are difficult to pin down (Artino, 2005). Moreover, as Liyaghat (2013, p. 124) concludes :

> Considering the combinatory subscales of motivational beliefs with .839 validity coefficient… and total validity coefficient .882 indicate that MSLQ questionnaire has generally a good validity coefficient.

The same can be applied to this study, in which the overall validity coefficient for the MSLQ questionnaire is .926, reflecting that the instrument has a generally good validity coefficient.

Table 13: Reliability coefficient analysis scale 'Alpha' of motivational sub-scales

Aspects	Sub-aspects	Number of items	Alpha coefficient
Motivation	Intrinsic goal orientation	4	.545
	Extrinsic goal orientation	4	.457
	Task value	6	.787
	Control of learning beliefs	4	.424
	Self-efficacy for learning and performance	8	.781
	Test anxiety	5	.635
Total		31	.834

Table 14: Reliability coefficient analysis scale 'Alpha' of cognitive and metacognitive sub-scales

Aspects	Sub-aspects	Number of items	Alpha coefficient
Cognitive and Metacognitive	Rehearsal	4	.672
	Elaboration	6	.744
	Organisation	4	.663
	Critical thinking	5	.676
	Metacognitive and self-regulation	12	.725
Total		31	.913

Table 15: Reliability coefficient analysis scale 'Alpha' of resource management strategies sub-scales

Aspects	Sub-aspects	Number of items	Alpha coefficient
Resource management strategies	Time and study environment	8	.508
	Effort regulation	4	.334
	Peer learning	3	.650
	Help seeking	4	.501
Total		19	.697

Table 16: Reliability coefficient analysis scale 'Alpha' of all main aspects

Main aspects	Number of items	Alpha coefficient
Motivation	31	.834
Cognitive and metacognitive	31	.913
Resource management	19	.697
Total	81	.926

4.1.2 Analysing the means and standard deviations of the motivation sub-aspects

The intrinsic goal orientation items

Table 17 shows means and standard deviations of the intrinsic goal orientation items:

Table 17: Means and standard deviations of intrinsic goal orientation items

Variables	Mean	Std. deviation
Q1: In a class like this, I prefer course material that really challenges me so I can learn new things	4.85	1.841
Q16: In a class like this, I prefer course material that arouses my curiosity, even if it is difficult to learn	4.78	2.040
Q22: The most satisfying thing for me in this course is trying to understand the content as thoroughly as possible	5.52	1.577
Q24: When I have the opportunity in this class, I choose course assignments that I can learn from even if they don't guarantee a good grade	4.42	1.939
Average	4.89	1.849

It is clear from the above table that the participants scored an average of (M=4.89, SD=1.849) on the intrinsic goal orientation scale, which can be classified as a relatively high score (Pintrich et al., 1991). On the one hand, it may be observed that only one item achieved a higher score than the average, that is, Q22 (M=5.52, SD=1.577). On the other, the other three items scored lower than the average: Q1 (M=4.85, SD=1.841), Q16 (M=4.78, SD=2.040) and Q24 (M=4.42, SD=1.939). These figures reflect that students on that course have on average high scores on that scale, however, it is clear that understanding the content as thoroughly as possible is the most evident item on the scale (see Figure 22).

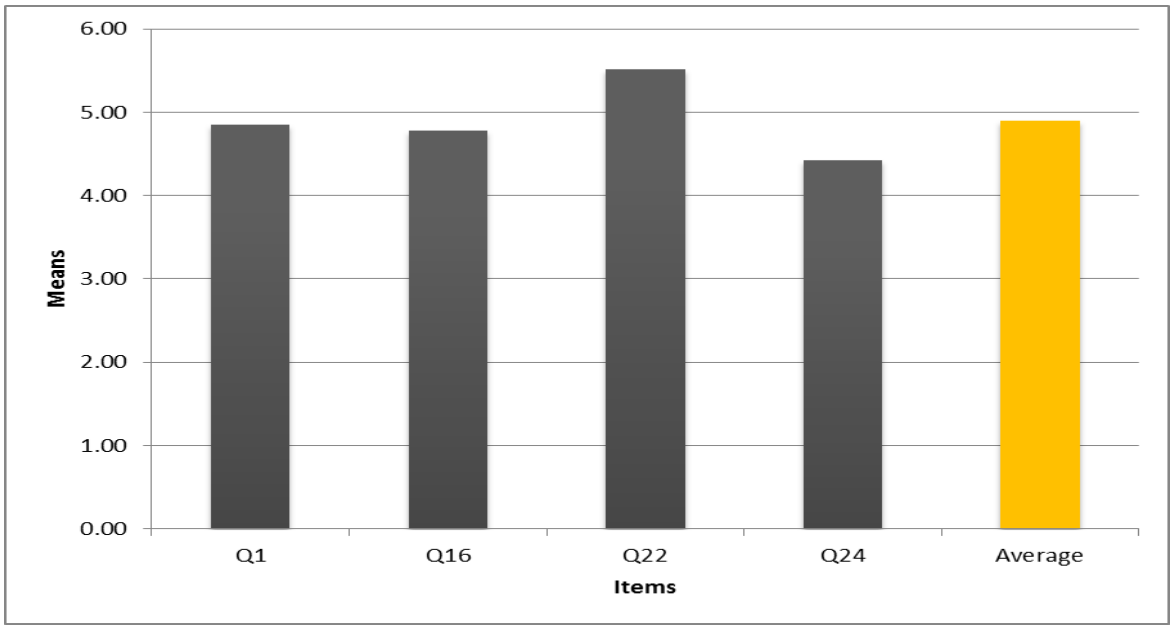

Figure 22: Means of intrinsic goal orientation variables

The extrinsic goal orientation items

Table 18 shows means and standard deviations of the extrinsic goal orientation items:

Table 18: Means and standard deviations of extrinsic goal orientation items

Variables	Mean	Std. deviation
Q7: Getting a good grade in this class is the most satisfying thing for me right now	5.88	1.734
Q11: The most important thing for me right now is improving my overall grade point average, so my main concern in this class is getting a good grade	5.82	1.744
Q13: If I can, I want to get better grades in this class than most of the other students	6.21	1.460
Q30: I want to do well in this class because it is important to show my ability to my family, friends, employer, or others	5.58	1.871
Average	5.87	1.702

The overall average score for the participants on the extrinsic goal orientation scale is (M=5.87, SD=1.702), which is relatively high (Pintrich et al., 1991). However, the items on the scale have scored differently. Items Q13 and Q7 have scored above average (M=6.21, SD=1.460l; M=5.88, SD=1.734 respectively), whereas items Q11 (M=5.82, SD=1.744, Q30 M=5.58, SD=1.871) scored below. This shows that 'Achieving better grades in this class than most of the other students' and 'Getting a good grade in this class' are the most evident items on the extrinsic goal orientation scale for students on that course (see Figure 23).

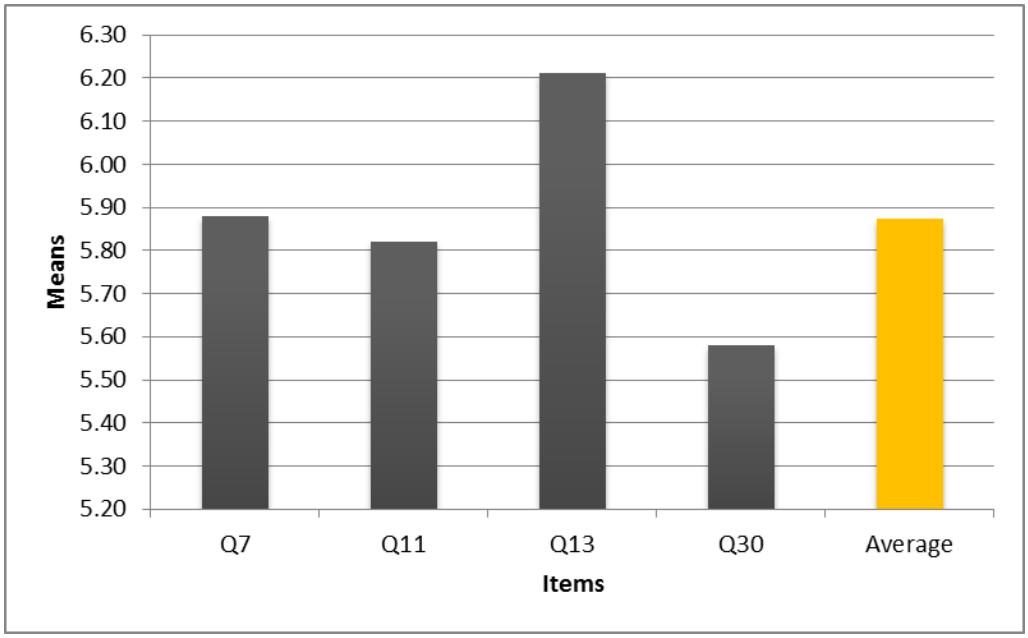

Figure 23: Means extrinsic goal orientation items

Task value items

Table 19 shows means and standard deviations of the task value items:

Table 19: Means and standard deviations of task value items

Variables	Mean	Std. deviation
Q4: I think I will be able to use what I learn in this course in other courses	4.64	1.837
Q10: It is important for me to learn the course material in this class	5.74	1.550
Q17: I am very interested in the content area of this course	4.91	1.784
Q23: I think the course material in this class is useful for me to learn	5.90	1.510
Q26: I like the subject matter of this course	5.64	1.597
Q27: Understanding the subject matter of this course is very important to me	5.78	1.591
Average	5.44	1.645

Items on the task value scale scored a high average (M=5.44, SD=1.645) (Pintrich et al., 1991). Individual items are not the same. On the one hand, most of the items have gained a higher score than the overall average (i.e. Q23 (M=5.90, SD=1.510), Q27 (M=5.78, SD=1.591), Q10 (M=5.74, SD=1.550) and Q26 (M=5.64, SD=1.597)). On the other hand, the other two items scored less than the overall average (i.e. Q17 (M=4.91, SD=1.784) and Q4 (M=4.64, SD=1.837). This could be a sign that 'The usefulness of the course material', 'Understanding the subject matter of this course', 'The importance of learning the course material in this class' and 'Liking the subject matter of the course' are the most apparent items among the students on the course (see Figure 24).

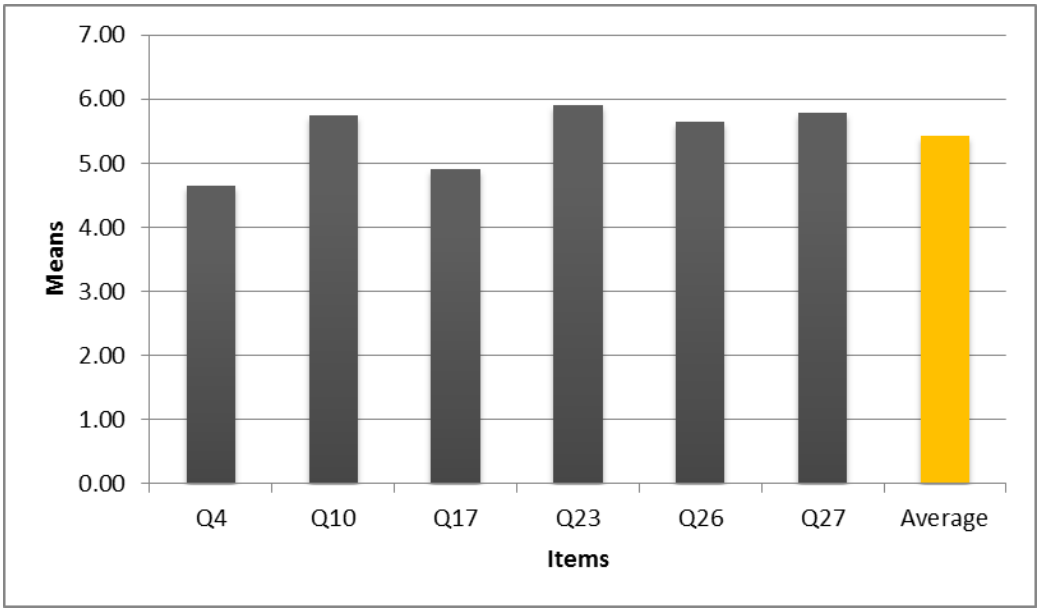

Figure 24: Means of task value items

The control of learning beliefs items

Table 20 shows the means and standard deviations of the control of learning beliefs items:

Table 20: Means and standard deviations of control of learning beliefs items

Variables	Mean	Std. deviation
Q2: If I study in appropriate ways, then I will be able to learn the material in this course	6.04	1.473
Q9: It is my own fault if I don't learn the material in this course	4.84	1.941
Q18: If I try hard enough, then I will understand the course material	6.02	1.405
Q25: If I don't understand the course material, it is because I didn't try hard enough	5.13	1.727
Average	5.51	1.637

It is clear from the data that the control of learning beliefs scale scored (M=5.51, SD=1.637), which is considered a high score (Pintrich et al., 1991). Two of the items (Q2 and Q18) scored higher than the average (M=6.04, SD=1.473 and M=6.02, SD=1.405, respectively), while the other items scored below the average (M=5.13, SD=1.727) for Q25 and (M=4.84, SD=1.941) for Q9. This indicates that the most apparent control of learning beliefs among the participants are: 'If they study in appropriate ways, then they will be able to learn the material in this course' and 'If they try hard enough, then they will understand the course material' (see Figure 25).

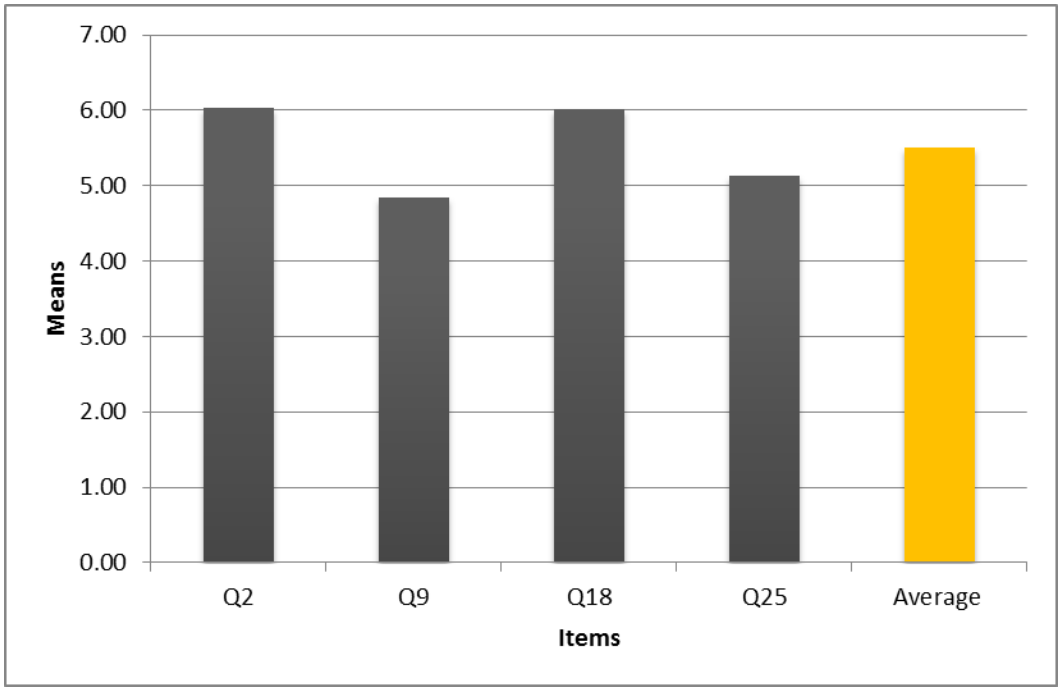

Figure 25: Means of control of learning beliefs items

Self-efficacy of learning and performance items

Table 21 shows means and standard deviations of self-efficacy of learning and performance items:

Table 21: Means and standard deviations of self-efficacy for learning and performance variables

Variables	Mean	Std. deviation
Q5: I believe I will receive an excellent grade in this class	6.18	1.253
Q6: I'm certain I can understand the most difficult material presented in the readings for this course	4.55	1.880
Q12: I'm confident I can learn the basic concepts taught in this course	5.95	1.392
Q15: I'm confident I can understand the most complex material presented by the instructor in this course	4.66	1.736
Q20: I'm confident I can do an excellent job on the assignments and tests in this course	5.73	1.523
Q21: I expect to do well in this class	6.06	1.251
Q29: I'm certain I can master the skills being taught in this class	5.43	1.409
Q31: Considering the difficulty of this course, the teacher and my skills, I think I will do well in this class	5.34	1.699
Average	5.49	1.518

Students on the course scored a high overall average of (M=5.49, SD=1.518) on the self-efficacy of learning and performance scale (Pintrich et al., 1991). The most reported items on the scale are Q5 (M=6.18, SD=1.253), Q21 (M=6.06, SD=1.251), Q12 (M=5.95, SD=1.392) and Q20 (M=5.73, SD=1.523), in which these items scored above the overall average. This could show that the students on the course share the same self-efficacy for learning and performance attributes. These include the confidence of receiving an excellent grade in that class, doing well in that class, learning the basic concepts taught in that course and doing an excellent job on the assignments and tests in that course (see Figure 26).

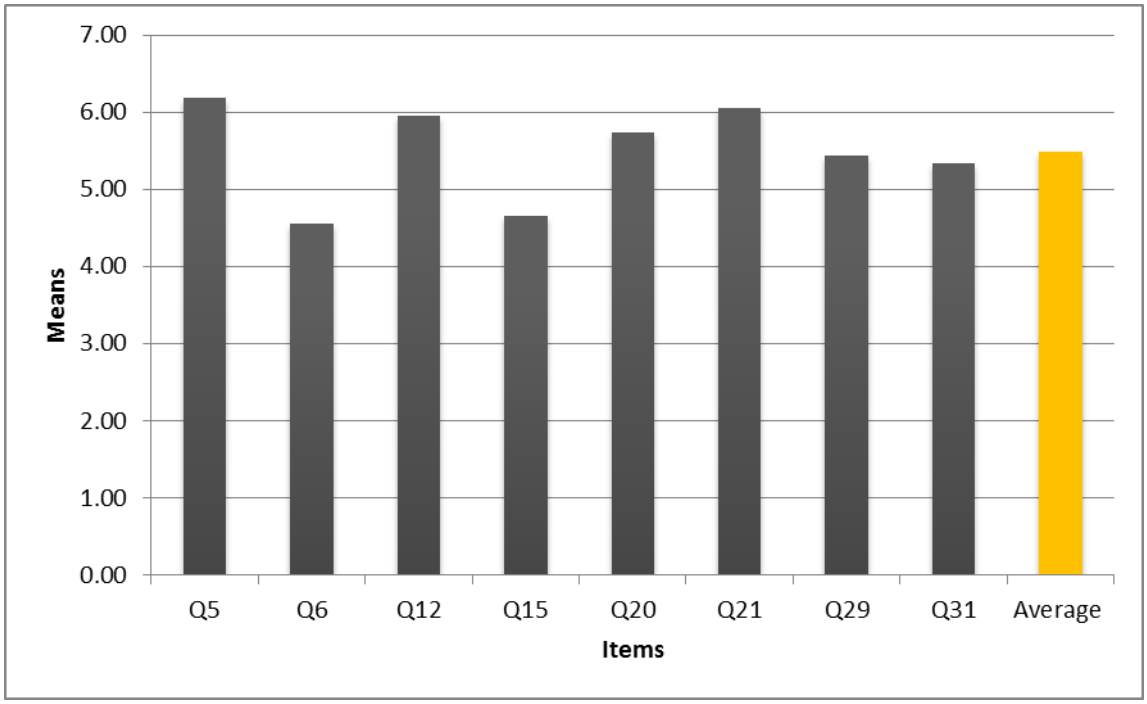

Figure 26: Means of self-efficacy for learning and performance items

Test anxiety items

Table 22 shows means and standard deviations of the test anxiety items:

Table 22: Means and standard deviations of test anxiety items

Variables	Mean	Std. deviation
Q3: When I take a test I think about how poorly I am doing compared with other students	3.91	2.063
Q8: When I take a test I think about items on other parts of the test I can't answer	4.96	1.962
Q14: When I take tests I think of the consequences of failing	4.62	2.044
Q19: I have an uneasy, upset feeling when I take an exam	4.73	2.009
Q28: I feel my heart beating fast when I take an exam	4.67	2.099
Average	4.58	2.035

The overall average score for participants on the test anxiety items is (M=4.58, SD=2.035), reflecting the level of worrying (Pintrich et al., 1991). All the items are above the average (i.e. Q8 (M=4.96, SD=1.962), Q19 (M=4.73, SD=2.009), Q28 (M=4.67, SD=2.099) and Q14 (M=4.62, SD=2.044) apart from Q3, which shows a more positive score of (M=3.91, SD=2.063). This result indicates that the students on

this blended learning course have issues in relation to the test anxiety sub-aspect of the learning (see Figure 27).

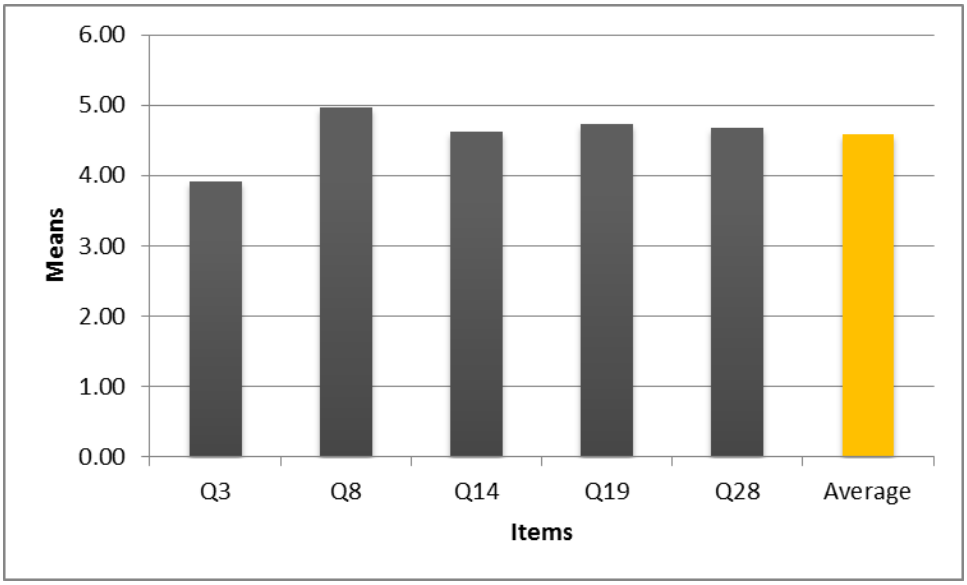

Figure 27: Means of test anxiety items

Means and standard deviations of the overall motivation sub-aspects

Table 23 shows means and standard deviations of the overall motivational sub-aspects:

Table 23: Means and standard deviations of the overall motivation sub-aspects

Sub-aspects	Average mean	Average std. deviation	Sub-aspects in order
Extrinsic goal orientation	5.87	1.702	1
Control of learning beliefs	5.51	1.637	2
Self-efficacy for learning and performance	5.49	1.518	3
Task value	5.44	1.645	4
Intrinsic goal orientation	4.89	1.849	5
Test anxiety	4.58	2.035	6
Average	**5.30**	**1.73**	

It is clear from the previous table that the participants scored highly on the overall average for the motivational sub-aspects (M=5.30, SD=1.73). Four sub-aspects scored above the average: extrinsic goal orientation (M=5.87, SD=1.702), control of learning beliefs (M=5.51, SD=1.637), self-efficacy for learning and performance (M=5.49, SD=1.518) and task value (M=5.44, SD=1.645). Therefore, to address the first research sub-question from the motivational perspective, it could be suggested that the following

order shows the most apparent motivational sub-aspects among the sample (see Figure 28):

1) Extrinsic goal orientation
2) Control of learning beliefs
3) Self-efficacy for learning and performance
4) Task value.

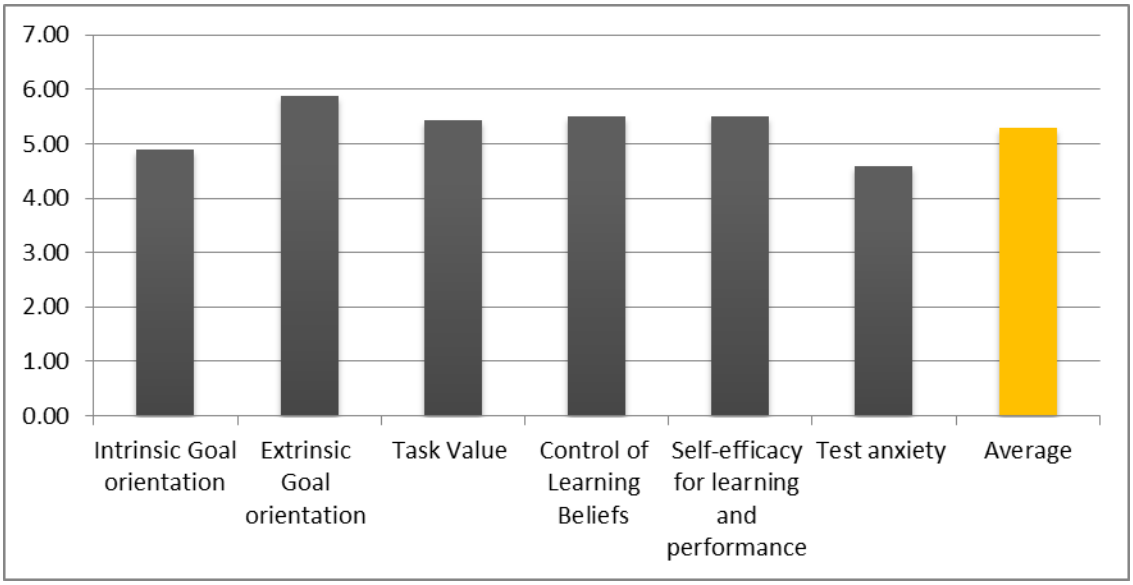

Figure 28: Means of motivation sub-aspects

4.1.3 Analysing the means and standard deviations of the cognitive and metacognitive sub-aspects

Rehearsal items

Table 24 shows means and standard deviations of the rehearsal sub-aspects items:

Table 24: Means and standard deviations of rehearsal items

Variables	Mean	Std. deviation
Q39: When I study for this class, I practice saying the material to myself over and over	3.95	2.077
Q46: When studying for this course, I read my class notes and the course readings over and over again	4.20	2.111
Q59: I memorize key words to remind me of important concepts in this class	5.17	1.736
Q72: I make lists of important items for this course and memorize the lists	4.08	2.119
Average	4.35	2.011

Students on the rehearsal scale achieved an average of a relatively high score (M=4.35, SD=2.011) (Pintrich et al., 1991). Two main observations are clear from the result.

First, only one item scored above the average (i.e. Q59: M=5.17, SD=1.736). Second, students on item Q39 gave a low score (M=3.95, SD=2.077). This can show, on one hand, that participants are most likely to use the memorisation of key words to remind them of important concepts in that class. On the other, the attribute of practising saying the material to themselves scored below the overall avarage (see Figure 29).

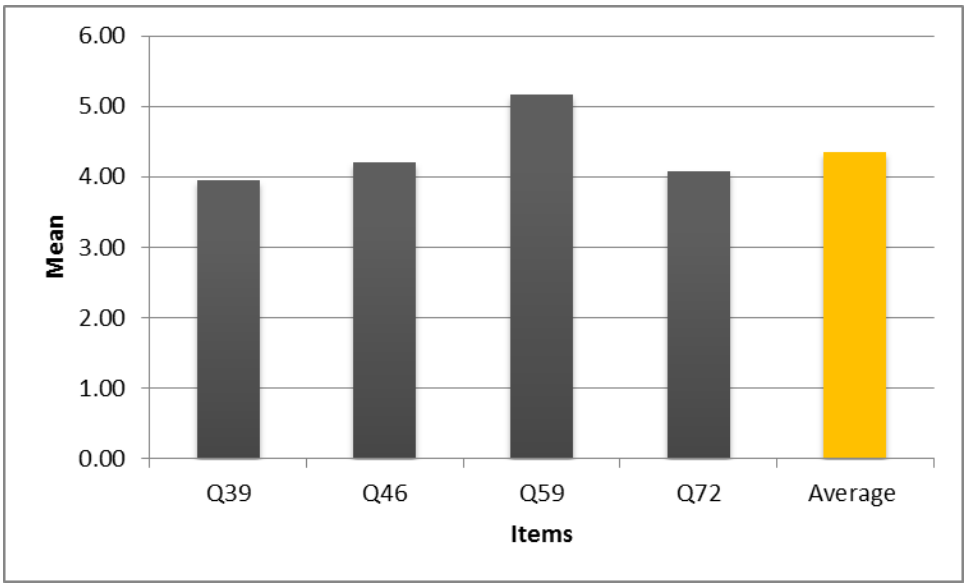

Figure 29: Means of rehearsal items

Elaboration items

Table 25 shows the means and standard deviations of the elaboration sub-aspects items:

Table 25: Means and standard deviations of elaboration items

Variables	Mean	Std. Deviation
Q53: When I study for this class, I pull together information from different sources, such as lectures, readings and discussions	4.02	2.068
Q62: I try to relate ideas in this subject to those in other courses whenever possible	4.47	1.867
Q64: When reading for this class, I try to relate the material to what I already know	4.98	1.760
Q67: When I study for this course, I write brief summaries of the main ideas from the readings and my class notes	4.55	2.019
Q69: I try to understand the material in this class by making connections between the readings and the concepts from the lectures	4.53	1.741
Q81: I try to apply ideas from course readings in other class activities such as lecture and discussion	4.48	1.815
Average	4.51	1.878

Although the participants scored an average of (M=4.51, DS=1.878) on the elaboration sub-aspects items, which is high (Pintrich et al., 1991), only three items scored above

the average Q64 (M=4.98, DS=1.760), Q67 (M=4.55, DS=2.019) and Q69 (M=4.53, DS=1.741). This confirms that the most significant elaboration strategies adopted by the participants are relating the material that they read to what they already know, writing brief summaries of the main ideas from their readings and their class notes and making connections between the readings and the concepts from the lectures (see Figure 30).

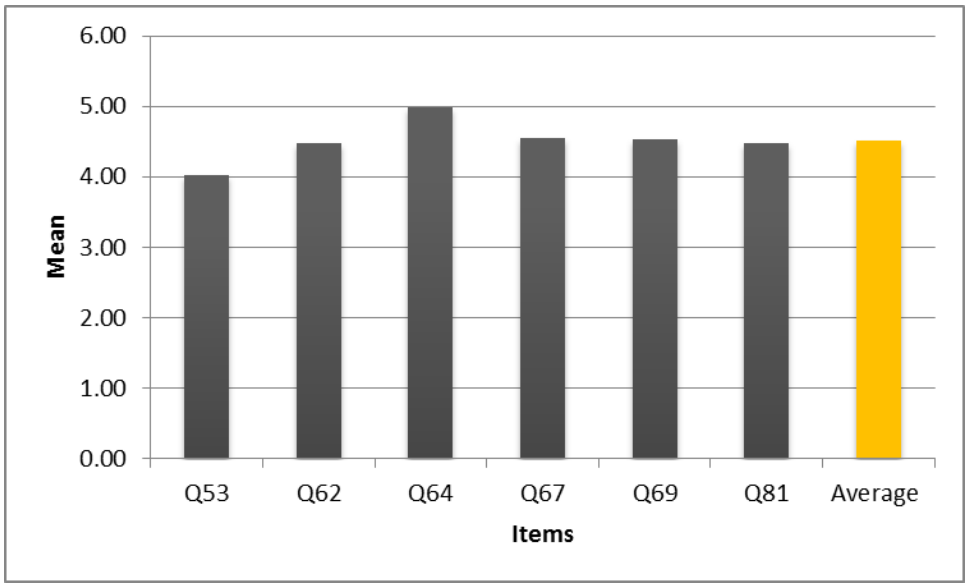

Figure 30: Means of elaboration items

Organisation items

Table 26 shows means and standard deviations of the organisation sub-aspects items:

Table 26: Means and standard deviations of organisation items

Variables	Mean	Std. deviation
Q32: When I study the readings for this course, I outline the material to help me organize my thoughts	5.01	2.052
Q42: When I study for this course, I go through the readings and my class notes and try to find the most important ideas	5.19	1.799
Q49: I make simple charts, diagrams, or tables to help me organize course material	4.03	2.279
Q63: When I study for this course, I go over my class notes and make an outline of important concepts	4.66	1.926
Average	4.72	2.014

Students on the course scored a high average of (M=4.72, SD=2.014) on the organisation sub-aspects scale (Pintrich et al., 1991). Two of the items scored more than the average, namely, Q42 (M=5.19, SD=1.799) and Q32 (M=5.01, SD=2.052). This would indicate that the majority of the students on the course used to go through the

readings and their class notes to try to find the most important ideas, as well as outlining the material to help them to organise their thoughts (see Figure 31).

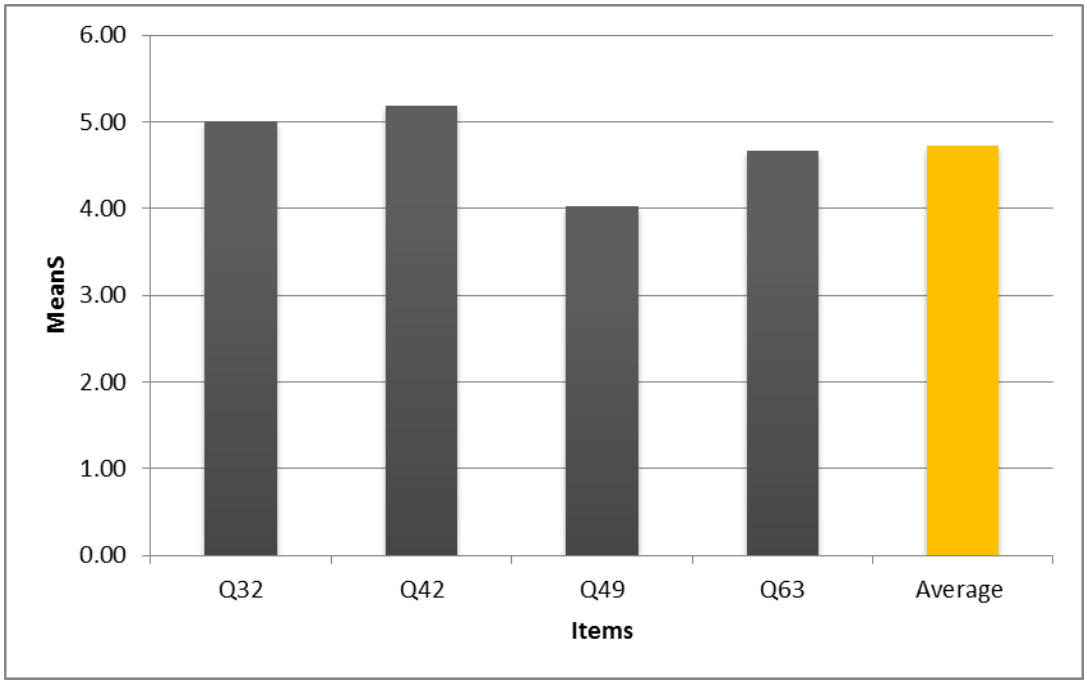

Figure 31: Means of organisation items

Critical thinking items

Table 27 shows the means and standard deviations of the critical thinking items:

Table 27: Means and standard deviations of critical thinking items

Variables	Mean	Std. Deviation
Q38: I often find myself questioning things I hear or read in this course to decide if I find them convincing	3.90	1.895
Q47: When a theory, interpretation, or conclusion is presented in class or in the readings, I try to decide if there is good supporting evidence	4.18	1.762
Q51: I treat the course material a: a starting point and try to develop my own ideas about it	4.11	1.711
Q66: I try to play around with ideas of my own related to what I am learning in this course	4.67	1.946
Q71: Whenever I read or hear an assertion or conclusion in this class, I think about possible alternatives	4.29	1.807
Average	4.23	1.824

The sample participants show a mean relatively high sore on the critical thinking sub-aspect (M=4.23, SD=1.824) (Pintrich et al., 1991). Two clear observations may be made: first, the only two items above the average are Q66 (M=4.67, SD=1.946) and Q71 (M=4.29, SD=1.807). Second, although the remained items scored less than the average, only Q38 scored (M=3.90, SD=1.895), considered a low performance (Pintrich

et al., 1991). This result reflects the fact that among the popular attributes of the learners on that course they are playing around with their own ideas relating to what they are learning on that course and thinking about possible alternatives whenever they read or hear an assertion or conclusion in class. The participants usually do not find themselves questioning things they hear or read in this course to decide if they find them convincing (see Figure 32).

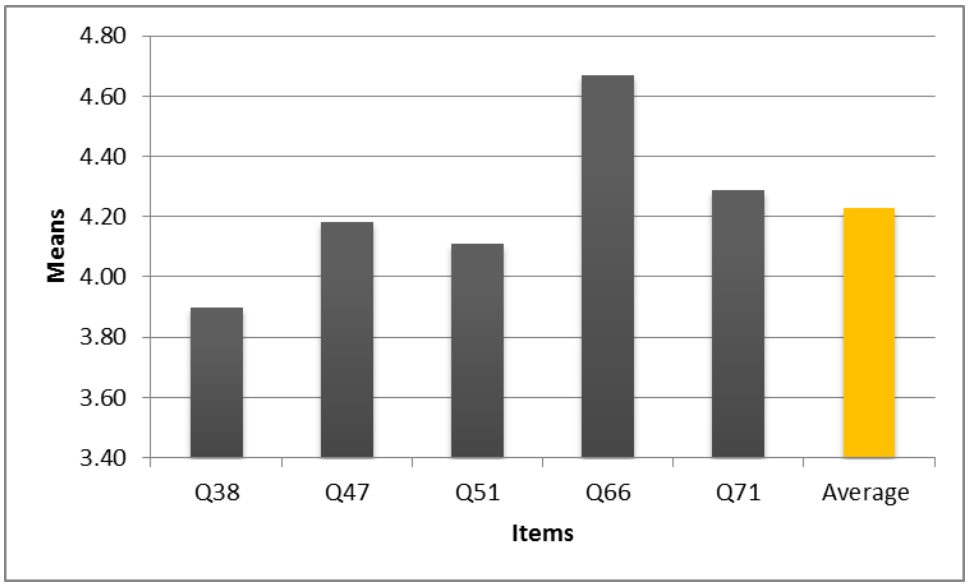

Figure 32: Means of critical thinking items

Metacognitive and self-regulation items

Table 28 shows the means and standard deviations of the metacognitive and self-regulation items:

Table 28: Means and standard deviations of metacognitive and self-regulation items

Variables	Mean	Std. deviation
Q33: During class time I often miss important points because I'm thinking of other things	3.03	1.893
Q36: When reading for this course, I make up questions to help focus my reading	4.79	2.052
Q41: When I become confused about something I'm reading for this class, I go back and try to figure it out	5.59	1.658
Q44: If course readings are difficult to understand, I change the way I read the material	4.79	1.755
Q54: Before I study new course material thoroughly, I often skim it to see how it is organized	4.83	1.922
Q55: I ask myself questions to make sure I understand the material I have been studying in this class	5.14	1.820
Q56: I try to change the way I study in order to fit the course requirements and the instructor's teaching style	4.55	1.928
Q57: I often find that I have been reading for this class but don't know what it was all about	4.44	1.963
Q61: I try to think through a topic and decide what I am supposed to learn from it rather than just reading it over when studying for this course	4.63	1.576
Q76: When studying for this course I try to determine which concepts I don't understand well	5.10	1.728
Q78: When I study for this class, I set goals for myself in order to direct my activities in each study period	4.34	1.866
Q79: If I get confused taking notes in class, I make sure I sort it out afterwards	4.12	1.967
Average	4.61	1.844

The metacognitive and self-regulation sub-aspect is high among the sample (M=4.61, SD=1.844) (Pintrich et al., 1991). The items on the scale are not the same; seven items out of 12 scored more than the average: Q41 (M=5.59, SD=1.658), Q55 (M=5.14, SD=1.820), Q76 =(5.10, SD=1.728), Q54 (M=4.83, SD=1.922), Q44 (M=4.79, SD=1.755), Q36 (M=4.79, SD=2.052) and Q61 (M=4.63, SD=1.576). Only one item may be described as a low metacognitive and self-regulation attribute, which is Q33 (M=3.03, SD=1.893) (Pintrich et al., 1991). This may show that, among the students in this study, the following metacognitive and self-regulation attributes are popular:

a) When they become confused about something they read for this class, they go back to try to figure it out.
b) They ask themselves questions to make sure they understand the material they have been studying in this class.
c) When studying for this course they try to determine which concepts they do not understand well.
d) Before they study new course material thoroughly, they often skim it to see how it is organised.

e) When reading for this course, they make up questions to help focus their reading.

f) If course readings are difficult to understand, they change the way they read the material.

g) They try to think through a topic and decide what they are supposed to learn from it, rather than just reading it over when studying for this course.

In addition it seems that participants on the course do not miss important points because of thinking of other things during class time (see Figure 33).

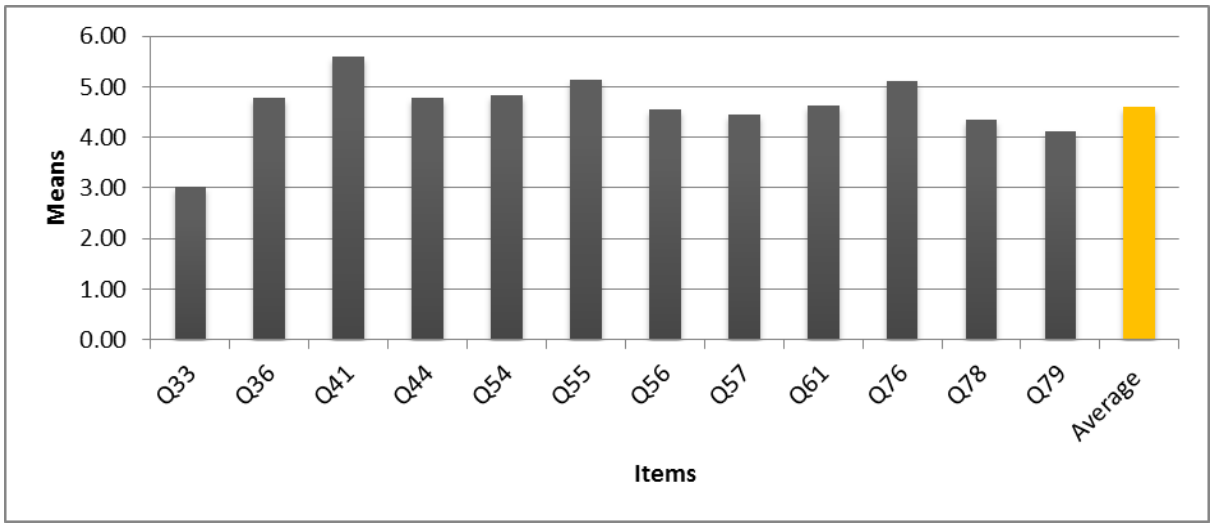

Figure 33: Means of metacognitive and self-regulation items

Overall cognitive and metacognitive sub-aspects:

Table 29 shows means and standard deviations of the overall cognitive and metacognitive sub-aspects:

Table 29: Means and standard deviations of overall cognitive and metacognitive sub-aspects

Sub-aspects	Average Mean	Average Std. Deviation	Sub-aspects in Order
Organisation	4.72	2.014	1
Metacognitive and Self-regulation	4.61	1.844	2
Elaboration	4.51	1.878	3
Rehearsal	4.35	2.011	4
Critical Thinking	4.23	1.824	5
Average	**4.48**	**1.91**	

In total, the participants scored highly on the cognitive and metacognitive sub-aspects (M=4.48, SD=1.91). Three sub-aspects are clearly above the average: organisation

(M=4.72, SD=2.014), metacognitive and self-regulation (M=4.61, SD=1.844) and elaboration (M=4.51, SD=1.878). According to the first research sub-question, the most apparent cognitive and metacognitive sub-aspects among the sample are (see Figure 34):

1) Organisation
2) Metacognitive and self-regulation
3) Elaboration.

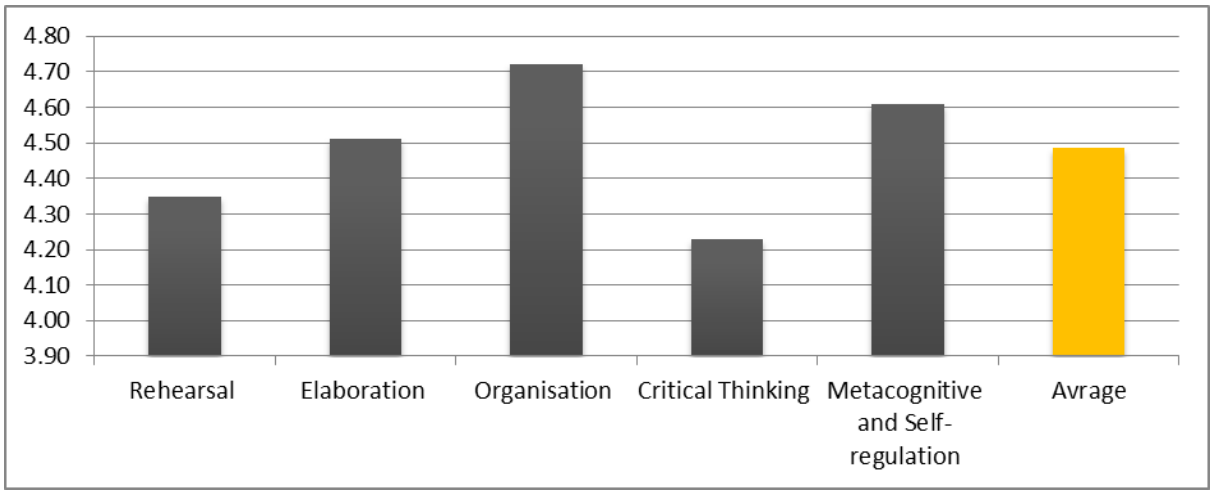

Figure 34: Means of cognitive and metacognitive sub-aspects

4.1.4 Analysing the means and standard deviations of the resource management strategies sub-aspects

Time and study environment items

Table 30 shows the means and standard deviations of the time and study environment sub-aspects items:

Table 30: Means and standard deviations of time and study environment items

Items	Mean	Std. deviation
Q35: I usually study in a place where I can concentrate on my course work	5.13	1.779
Q43: I make good use of my study time for this course	4.67	1.936
Q52: I find it hard to stick to a study schedule	3.34	2.118
Q65: I have a regular place set aside for studying	4.73	2.166
Q70: I make sure that I keep up with the weekly readings and assignments for this course	4.34	1.944
Q73: I attend this class regularly	5.18	1.841
Q77: I often find that I don't spend very much time on this course because of other activities	3.22	1.920
Q80: I rarely find time to review my notes or readings before an exam	3.62	2.015
Average	4.28	1.965

The average score for the means on the time and study environment items is relatively high (M=4.28, SD=1.965) (Pintrich et al., 1991). The following five items scored above the average: Q73 (M=5.18, SD=1.841) Q35 (M=5.13, SD=1.779), Q65 (M=4.73, SD=2.166), Q43 (M=4.67, SD=1.936), Q70 (M=4.34, SD=1.944). The remaining items scored below the average and are considered as a low score (Pintrich et al., 1991): Q80 (M=3.62, SD=2.015), Q52 (M=3.34, SD=2.118) and Q77 (M=3.22, SD=1.920). These outcomes can show, on the one hand, that the students have in common the following characteristics:

a) They attend this class regularly.
b) They usually study in a place where they can concentrate on their course work.
c) They have a regular place set aside for studying.
d) They make good use of their study time for this course.
e) They make sure that they keep up with the weekly reading and assignments for this course.

On the other hand, it can show that mostly students in the study are not doing very well in the following items:

f) In finding time to review their notes or readings before an examination.
g) In having a regular place set aside for studying.
h) In finding that they do not spend very much time on this course because of other activities (see Figure 35).

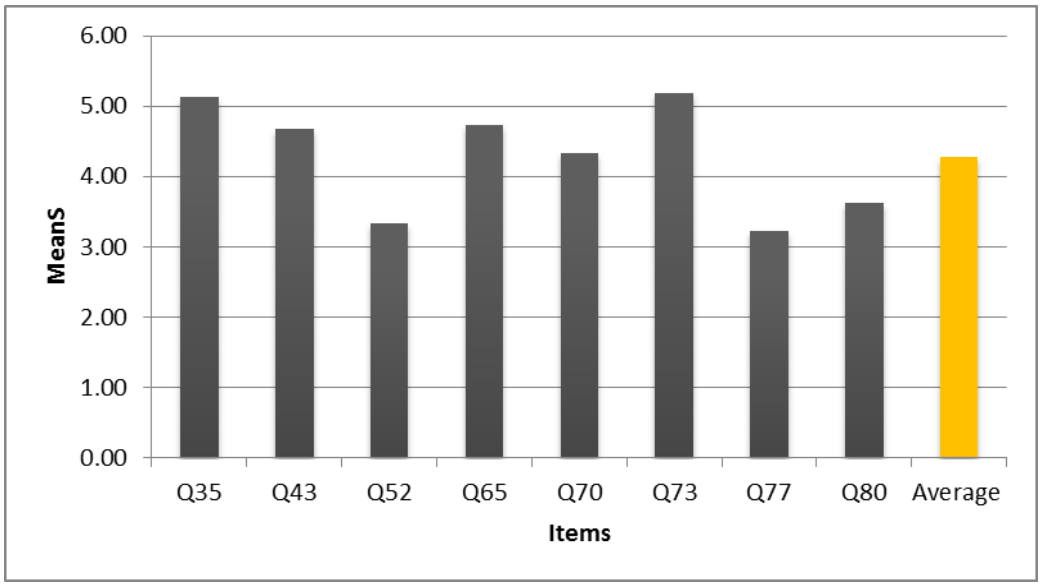

Figure 35: Means of time and study environment items

Effort regulation items

Table 31 shows means and standard deviations of the effort regulation sub-aspects:

Table 31: Means and standard deviations of effort regulation items

Variables	Mean	Std. deviation
Q37: I often feel so lazy or bored when I study for this class that I quit before I finish what I planned to do	4.02	2.150
Q48: I work hard to do well in this class even if I don't like what we are doing	5.03	1.836
Q60: When course work is difficult, I either give up or only study the easy parts	4.25	2.161
Q74: Even when course materials are dull and uninteresting, I manage to keep working until I finish	4.57	1.876
Average	4.47	2.006

Although the overall mean average for the effort regulation items is high, two of the items scored higher than the average (i.e. Q48 (M=5.03, SD=1.836), Q74 (M=4.57, SD=1.876)), and two remaining items scored less than the average. These findings may confirm that the average students in the sample share the following effort regulation attributes:

a) They work hard to do well in this class even if they do not like what they are doing.
b) Even when course materials are dull and uninteresting, they manage to keep working until they finish (see Figure 36).

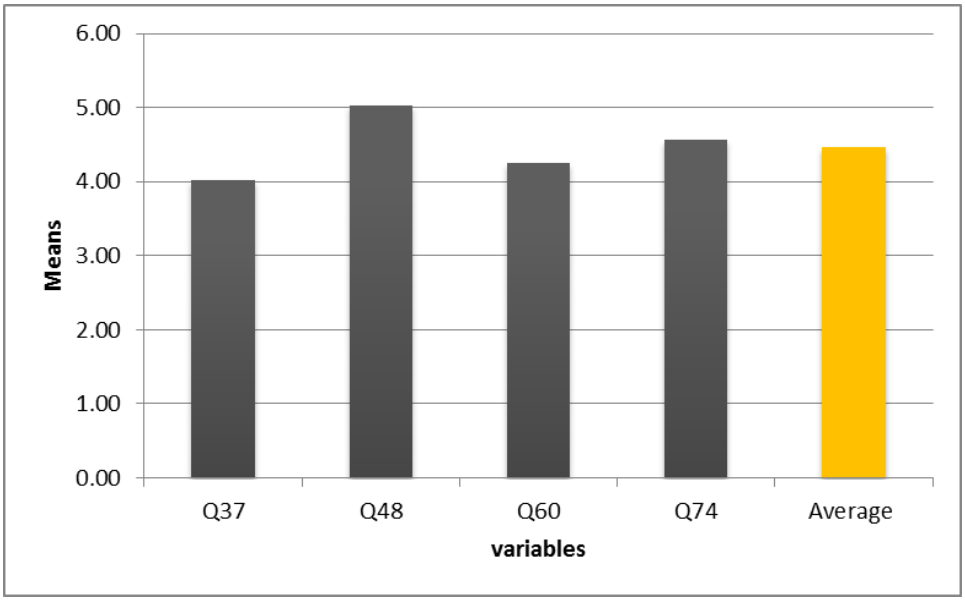

Figure 36: Means and standard deviations of effort regulation items

Peer learning items

Table 32 shows the means and standard deviations of the peer learning sub-aspects items:

Table 32: Means and standard deviations of peer learning items

Variables	Mean	Std. deviation
Q34: When studying for this course, I often try to explain the material to a classmate or friend	3.28	2.101
Q45: I try to work with other students from this class to complete the course assignments	3.61	2.175
Q50: When studying for this course, I often set aside time to discuss course material with a group of students from the class	2.81	2.008
Average	3.23	2.095

Participants on the peer learning items score low (M=3.23, SD=2.095). Two items are higher than the average, Q45 (M=3.61, SD=2.175) and Q34 (M=3.28, SD=2.101), and one item is below average Q50 (M=2.81, SD=2.008). The results indicate that the students on the course have issues with peer learning, which is one of their resource management strategies (see Figure 37).

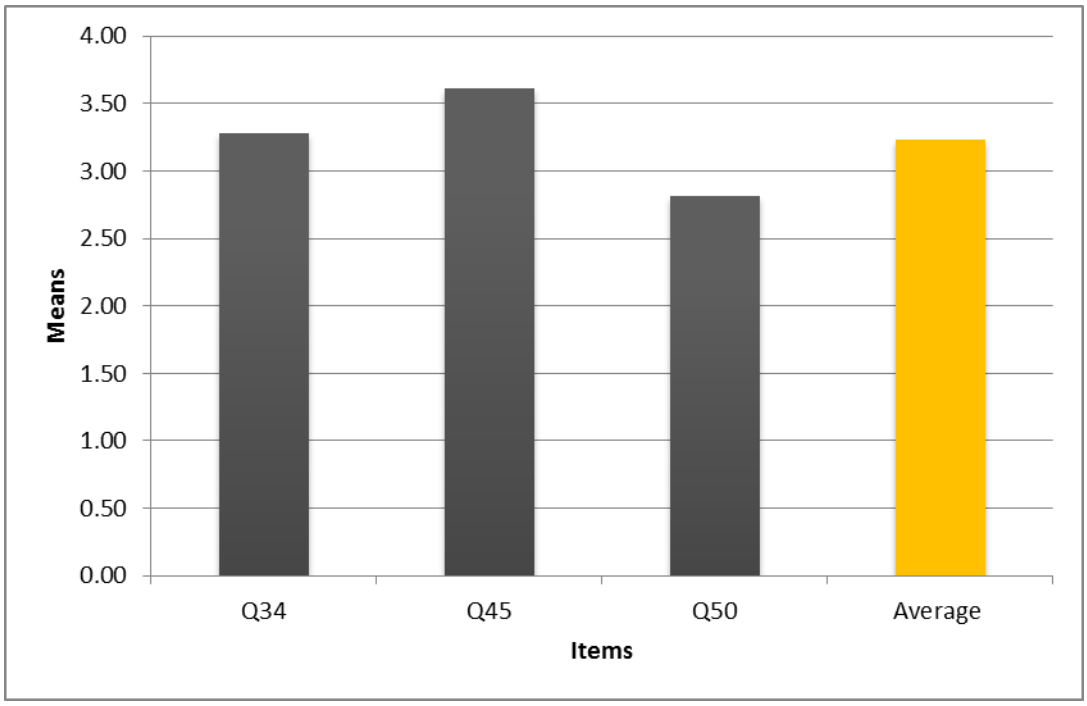

Figure 37: Means of peer learning items

Help-seeking items

Table 33 shows means and standard deviations of the help-seeking sub-aspects items:

Table 33: Means and standard deviations of help-seeking items

Variables	Mean	Std. deviation
Q40: Even if I have trouble learning the material in this class, I try to do the work on my own, without help from anyone	3.09	1.963
Q58: I ask the instructor to clarify concepts I don't understand well	3.98	2.076
Q68: When I can't understand the material in this course, I ask another student in this class for help	4.02	2.104
Q75: I try to identify students in this class whom I can ask for help if necessary	5.11	1.850
Average	4.05	1.998

The overall average of the means on help-seeking items is high (M=4.05, SD=1.998) (Pintrich et al., 1991). Interestingly, only one item is over the average Q75 (M=5.11, SD=1.850). Although the remaining items are all less than the average, two scored low: Q58 (M=3.98, SD=2.076) and Q40 (M=3.09, SD=1.963). The outcomes initially tell that participants share the same perspective of trying to identify students in class whom they can ask for help if necessary. Conversely, the data also reflects that participants are having issues with the following help-seeking items (see Figure 38):

a) When having trouble learning the material in this class, they do not try to do the work on their own, without help from anyone.
b) Asking the instructor to clarify concepts they do not understand well.

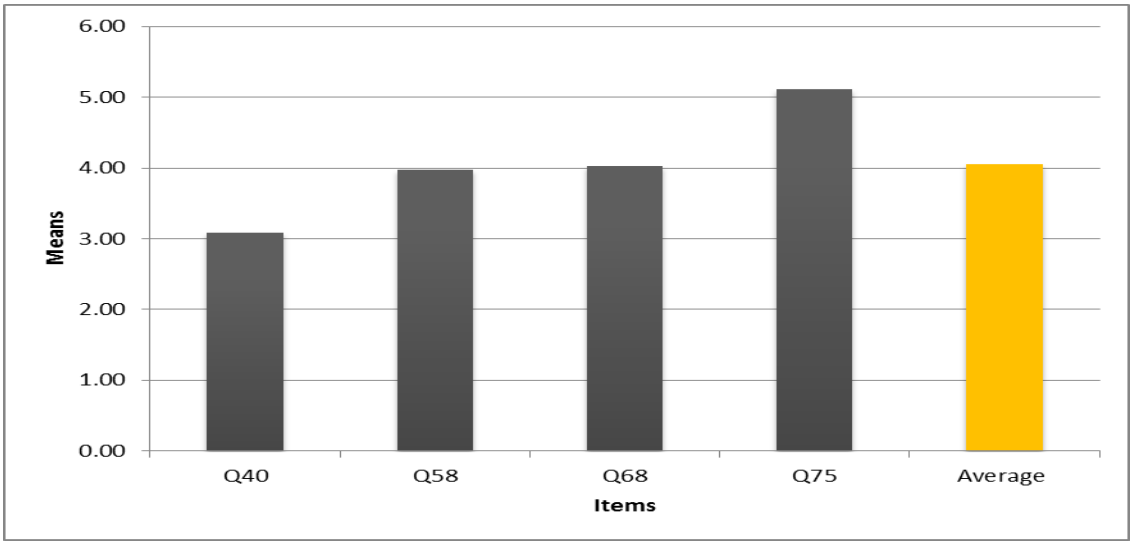

Figure 38: Means of help-seeking items

Overall resource management strategies sub-aspects

Table 34 shows the means and standard deviations of the overall resource management strategies sub-aspects:

Table 34: Means and standard deviations of resource management strategies sub-aspects

Sub-aspects	Average mean	Average std. deviation	Sub-aspects in order
Effort regulation	4.47	2.006	1
Time and study environment	4.28	1.965	2
Help seeking	4.05	1.998	3
Peer learning	3.23	2.095	4
Average	**4.01**	**2.02**	

The table shows a high score of the means average for the resource management strategies sub-aspects (M=4.01, SD=2.02). All sub-aspects achieved higher than the average (i.e. effort regulation (M=4.47, SD=2.006), time and study environment (M=4.28, SD=1.965) and help seeking (i.e. M=4.05, SD=1.998)), except the peer learning sub-aspect that scored (M=3.23, SD=1.998). With respect to the first research sub-question, it is clear from the data that the most apparent resource management strategies sub-aspects among the sample are (see Figure 39):

a) The effort regulation sub-aspects
b) The time and study environment sub-aspects
c) The help-seeking sub-aspects.

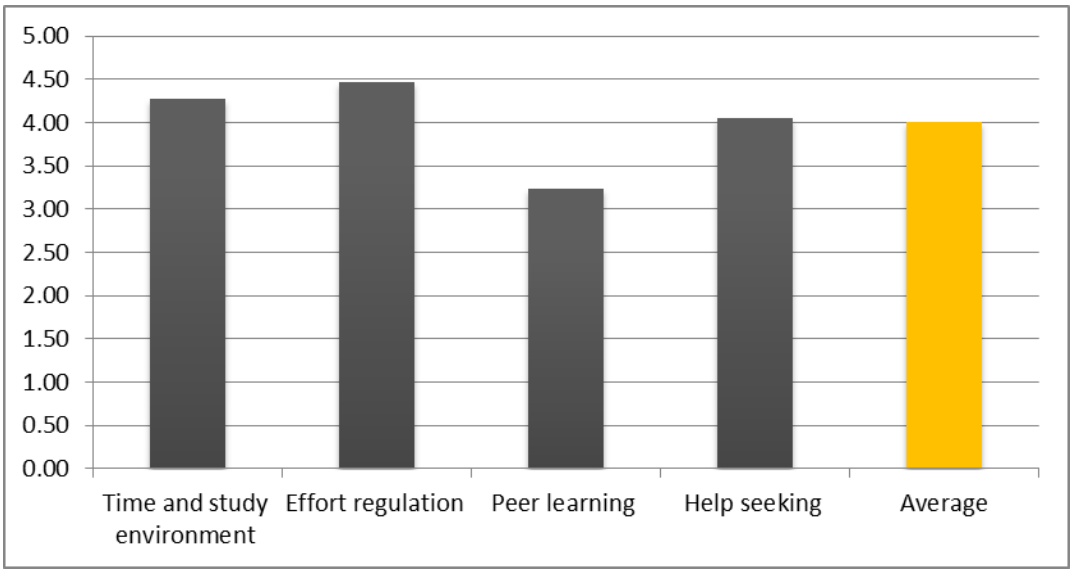

Figure 39: Means of resource management strategies sub-aspects

4.1.5 Analysing the means and standard deviations of the main aspects of self-regulated learning

Table 35 shows the means and standard deviations of the main aspects of self-regulated learning:

Table 35: Means and standard deviations of the main aspects of self-regulated learning

Aspects	Average Mean	Average Std. Deviation
Motivation	5.30	1.73
Cognitive and metacognitive	4.48	1.91
Resource management strategies	4.01	2.02
Average	**4.60**	**1.89**

Reflecting on the overall average of the score on the self-regulated learning main aspects, it is clear that the participants achieved a high score (M=4.60, SD=1.89). Only the motivation aspect scored above the average (M=5.30, SD=1.73). This result can help in addressing the first research sub-question (see Figure 40):

Which aspects of self-regulated learning are more apparent on a blended learning course at King Khalid University?

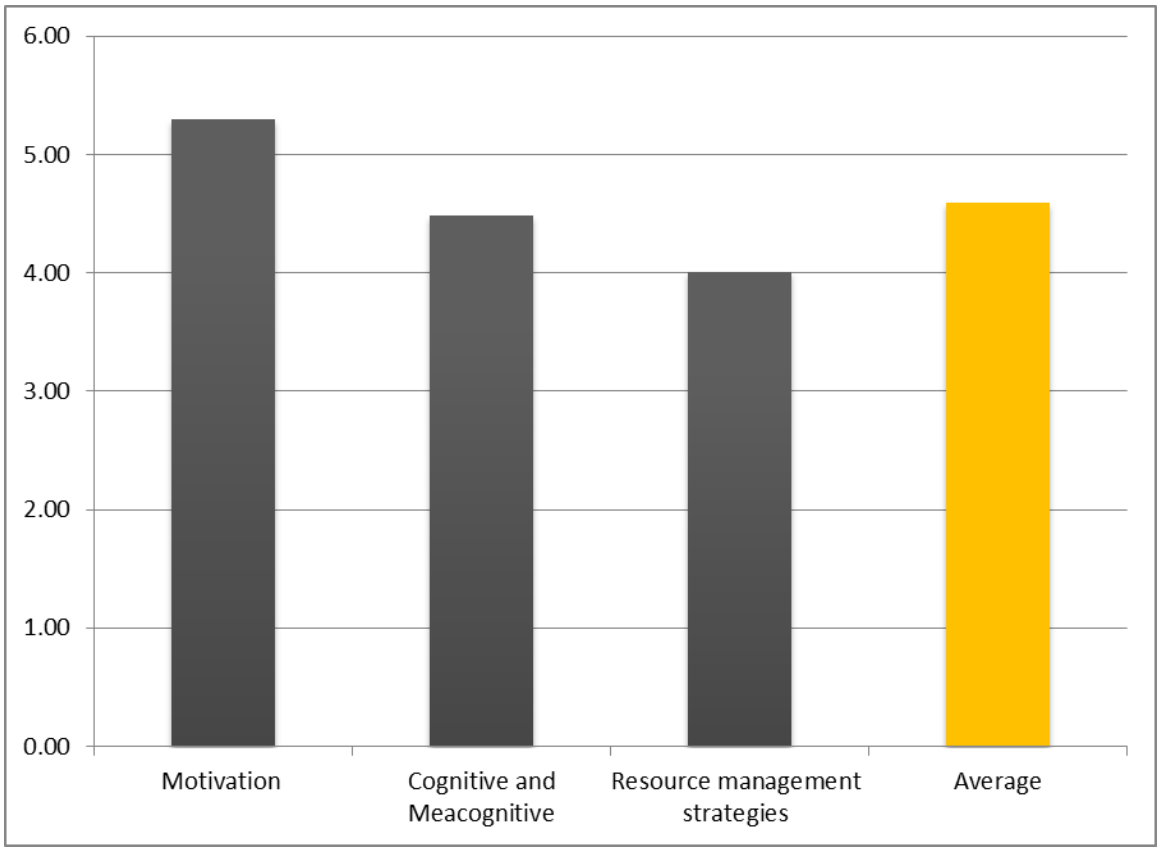

Figure 40: Means of main aspects of self-regulated learning

4.2. Qualitative Data Analysis Results

This section includes qualitative results from the interviews conducted among the participants in order to triangulate the quantitative results and to gain more qualitative details about the research main question: ‘How do male learners at King Khalid

University regulate their own learning in a blended learning environment?' The results will be introduced to address in detail the following three research sub-questions:

1. How do male learners at King Khalid University motivate themselves on a blended learning course?
2. How do male learners at King Khalid University use their cognitive and metacognitive abilities on a blended learning course?
3. How do male learners at King Khalid University manage their learning resources on a blended learning course?

The qualitative results from the interviews will be introduced in the form of main themes and sub-themes. The following sub-section is to help the reader navigate the results and to explain how the themes and sub-themes were identified.

Thematic analysis process

The thematic analysis is 'a method for identifying, analysing and reporting patterns (themes) within data. It minimally organises and describes your data set in (rich) detail' (Braun & Clarke, 2006, p. 6). A theme helps the researcher to capture important aspects in relation to the data and the research question, and shows a level of patterned response or meaning within the dataset (Braun & Clarke, 2006). It can be recognised in one of two main ways in thematic analysis: in an inductive or 'bottom up' way or in a theoretical or deductive or 'top down' way (Braun & Clarke, 2006). This study uses the second method, since it is driven by Pintrich et al. (1991) 'model' of self-regulated learning. For illustration, each of the previous three sub-research questions involves further units of analysis (Elo & Kyngas, 2008). Each unit is linked to the interview questions – see Figure 41.

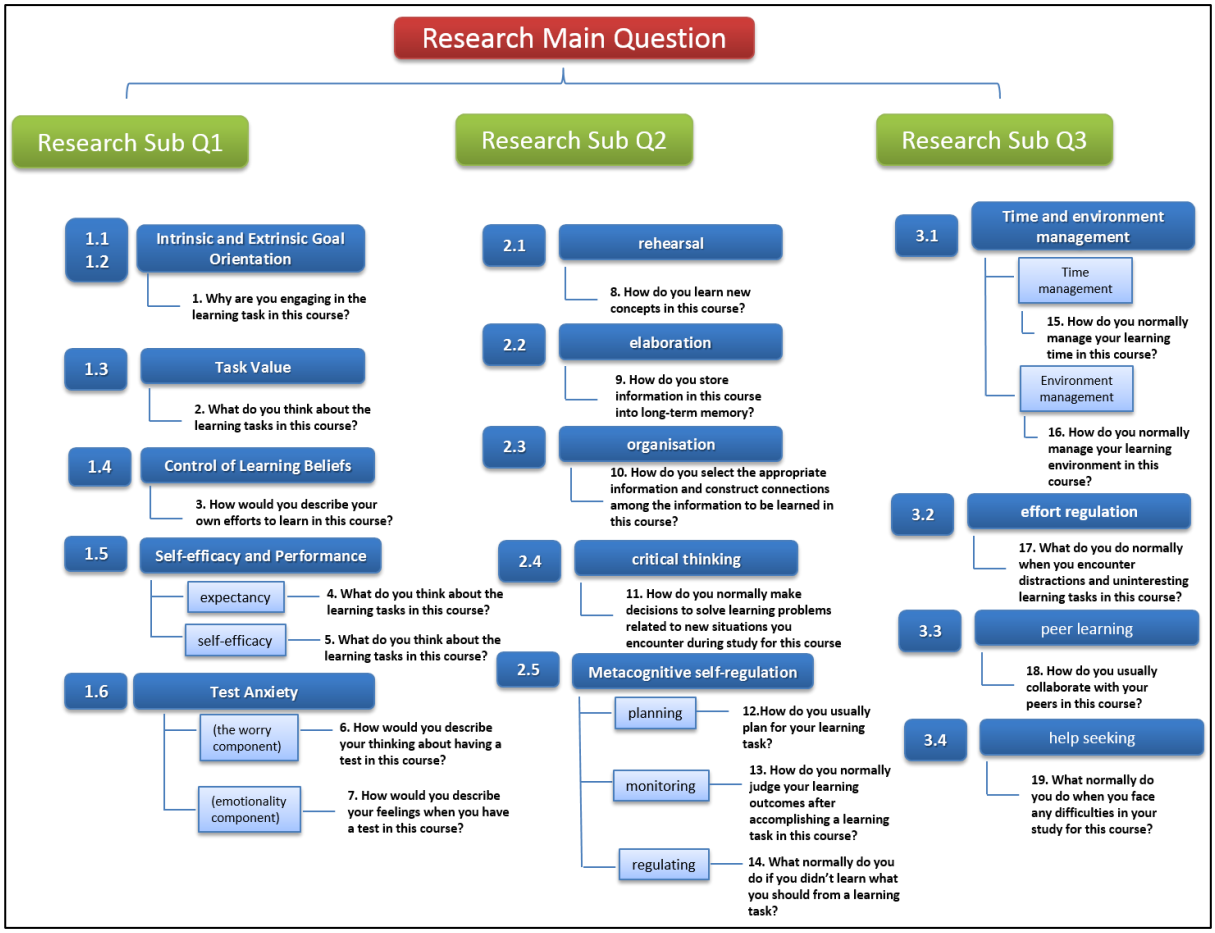

Figure 41: Units of analysis and research main and sub-questions

The themes were identified in six main phases. First, while becoming familiar with the data, it was undertaken in two main ways: a) transcription of the data, and; b) repeated reading of the data in an active way to search for meanings, patterns and so on (Braun & Clarke, 2006). Second, after this familiarisation phase, an initial list of ideas about what was in the data and what was interesting about them was generated, then I created codes that identified a feature of the data that appeared interesting for my study. NVivo software was used in the coding process by tagging and naming selected text within each data item (Braun & Clarke, 2006). After working systematically through the whole dataset, giving full and equal attention to each data item, I identified interesting aspects of items in the data that might form the basis of repeated patterns (themes) across the dataset (Braun & Clarke, 2006).

Third, after all data were coded and collected, the focus was on the broader level of themes, rather than codes, and involved sorting the different codes into potential themes and gathering up all the related coded data extracts within the recognised themes. For

illustration, the interview questions were designed for two main purposes. The first was to confirm the existence or absence of every unit of analysis among the participants: there was a positive indication for a unit of analysis when the interviewee response to an interview item confirmed it by providing examples or strategies used. By contrast, there was a negative indication that a unit of analysis did not exist if the participants responded to the interview item by providing further reasons for the absence of that unit. The second purpose was to complement and gain further explanation of both positive and negative indications, the former to see if the unit of analysis occurred in the experience of the participants and the latter to understand the reasons behind its absence. Each main and sub-theme was given a descriptive meaning. These descriptions were based on the shared topic that the participants expressed during the conversation. In this phase, it is recommended to use visual representations to help sort the different codes into themes (Braun & Clarke, 2006), therefore, the following table was developed. By the end of this phase I had a group of candidate themes and sub-themes, and all extracts of data were coded in relation to them (Braun & Clarke, 2006).

Table 36: Summary of emerging themes and sub-themes

Research Sbquestions	Units of analysis	Interview Questions	Emerging themes				
			N	**Main themes**	**N**	**Sub-themes**	**Descriptions**
How do learners at King Khalid University motivate themselves on a blended learning course?	Task value	What do you think about the learning tasks in this course?	**1**	Positive perspectives	**1**	Association with the contemporary life	Sudents are evaluating the learning task as a task that is associated with their contemporary life
					2	Clarity	Students are evaluating the learning task as a direct and simple task
					3	Improving learning skills	Students are happy that the learning task helped them to improve their learning skills
					4	Learner voice	Students feel positive of the learning task because it gives a space for their voice
					5	Independence	Students like the learning task because it encourage them to be independent
					6	Thinking stimulation	Students like the homework because it stimulate his thinking
			2	Negative perspectives	**1**	Online learning tasks	Students believe that conducting tasks via Blackboard decreased their enthusiastic
					2	Atitude issues toward learning tasks	Students on the course stated clearly a negative attitude toward the idea of learning tasks

(To see the complete table of the summary of emerging themes for the second, third and fourth research sub-question, refer to Appendices F-H)

In the fourth phase, the aim was to determine whether the themes worked in relation to the dataset and to code any additional data within themes that had been missed in earlier coding stages (Braun & Clarke, 2006). Fifth, I defined and refined the themes that I present for my analysis, and analysed the data within them (Braun & Clarke, 2006). Finally, after fully working out the themes, I reported on the resulting themes and sub-themes (Braun & Clarke, 2006). This included: a) the units of analysis and their definitions; b) the interview item that explored the units of analysis; c) the main themes and sub-themes that emerged from each unit of analysis, and; c) a description of the theme and sub-themes, providing representative illustrations from the participants' responses. Each participant was allocated a numbered acronym 'PART', to refer to the word 'Participant' for the following reasons: a) to preserve the confidentiality of the participants, and; b) to link the illustration with the participants. In order to show the typicality of the illustration to the group, the words 'a few', 'some', 'many' and 'most' are used in an ordered manner to indicate the range of the number of respondents:

a. few: 5 or fewer participants
b. some: 6 to 10 participants
c. many: 11 to 15 participants
d. most: 16 and above participants
e. all: 20 (total number of participants).

4.2.1. Motivational aspect of learners on a blended learning course at King Khalid University

This will be analysed through the following motivational units: intrinsic and extrinsic goal orientation, task value, control of learning beliefs, self-efficacy for learning and performance and test anxiety (Pintrich et al., 1991). The qualitative findings for this aspect among the participants will be presented under the following titles (refer to Appendix F: Summary of themes emerging from second research sub-question):

Unit analysis (1.1) and (1.2): Intrinsic and extrinsic goal orientation

Goal orientation is about the learners' thoughts of the reasons for being in a learning task (Pintrich et al., 1991). The following interview question explored this motivational aspect in this study both intrinsically and extrinsically:

Why are you engaging in the learning task in this course?

The results will be introduced under the following sub-headings.

Theme (1.1): Intrinsic goal orientation

Intrinsic goal orientation refers to 'the student's perception of the reasons why they are engaging in a learning task' (Pintrich et al., 1991, p. 9). Most of the participants reported various interinsic reasons for being engaged in a learning task. The following intrinsic goal orientation sub-themes were revealed in the interviews (see Figure 42):

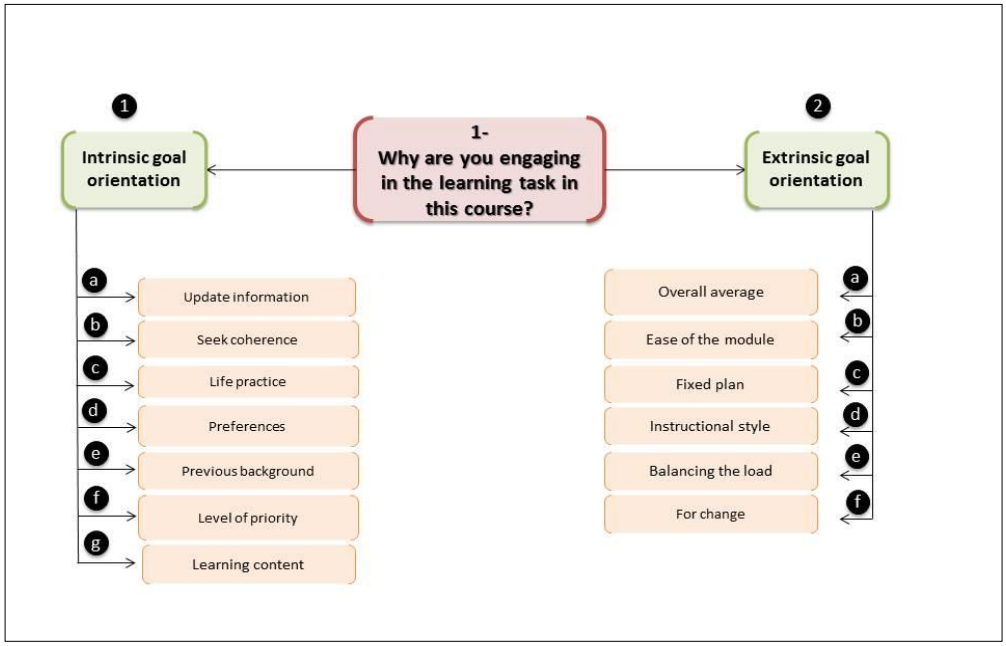

Figure 42: Merged themes of intrinsic and extrinsic goal orientation aspects

- Sub-theme (1.1.a): Updating Islamic information

One theme with regard to intrinsic goal orientation that emerged from the transcripts is to have more information about Islamic cultural aspects, and a few participants referred to this idea, for example PART-10 said:

> It is necessary for the individual to refresh his Islamic culture information from time to time.

In addition, PART-17 explicitly said:

> In fact, I enjoy studying 'SALAM 113' because I learn information... I get a background of issues otherwise unknown to me that I can use in discussion with others….

A third interviewee believed that:

> You study this module in order to become educated… the name of the module (Islamic Cultural) reflects how you are taught the things that are important to you…. (PART-05)

- Sub-theme (1.1.b): Seek coherence

Seeking coherence with other scientific modules was among the observed themes in the interviews. A few participants reported this, for example, an interviewee with a medical science background stated that:

> Really, there are many reasons for studying this module… but the most important is trying to link scientific subjects or medicine and other subjects… with what they call in the University 'General Requirement' modules. (PART-10)

- Sub-theme (1.1.c): Life practice

Some students in the sample engaged with learning materials because they believed that it would help them in real life. For illustration, PART-05 said:

> I find it useful in my work, my studies and my future.

A number of examples of topics in that module make it useful, as suggested by PART-06 who stated:

> Yes, they are very useful... marriage… divorce… all these topics are included…all these topics we need in our forthcoming life... so it should be understood for me….

Finally, PART-07 specified that:

> Topics of SALAM 113 are very easy because they discuss society… Islam & Society… also most of the topics are about contracts, marriages, the fundamentals for building Islamic society and its characteristics... we live all of this in our daily life.

- Sub-theme (1.1.d): Preferences

A few students in the study studied the subject because they were interested in the subject itself and found themselves 'in it'. PART-10, for example, said:

> Actually Islamic Culture studies is my cup of tea… I love Islamic Culture topics… I really find myself in it.

In addition, when this individual was asked whether the grade and scores that he could achieve have something to do with the reasons for choosing to study this module during this term, he emphasised that:

> It is possibly a reason... but as for me and particularly in this year... I have discovered that choosing to study the Module of Salam 113 is not chiefly related to grades… frankly speaking, I was keen from the start to take the subject of Salam this semester. (PART-10)

- Sub-theme (1.1.e): Previous background

Familiarity of the learning materials was among the factors for being engaged in this blended learning course at King Khalid University. A few interviewees expressed this idea. For instance, PART-12 was asked about the reasons for choosing to engage in this particular course, and replied:

> My previous studies in primary and secondary schools was about Islamic subjects… because I graduated from the Institute of Islamic Sciences… so I love anything related to Islamic Studies….

Another student reported:

> We studied it back in high school... so it is more like revision... no more, no less… (PART-19)

- Sub-theme (1.1.f): Level of priority

A few students on the course raised the idea of its priority as a reason for being engaged in this course. PART-12, when asked about the reasons of engaging in the learning materials, wondered:

> If I did not study Islamic Culture or was not concerned about it… what else would I be concerned with?... it is the most important module... I think it is more important than my other major modules....

In addition, PART-15 said:

> I think that this module is in the subject that I make most use of, regardless of my major.

A third interviewee, talking about the reasons for his engagement, stated:

> First, to benefit from this module personally, then come my grades in the subject… (PART-05)

- Sub-theme (1.1.g): Learning content

One of the themes reported by the participants is the learning content. This aspect was raised by some participants. For example, PART-13 was talking about the reasons for studying the course:

> These kinds of subjects are enjoyable… you can think… these are right…. why are these wrong…

He explained further that:

> It does not focus on one particular side, first it focuses on religion and social communication, especially Salam 113... building society... these are important things….

Another student had the same idea:

> As is known by everyone, the Islamic Culture subject is important… generally it illustrates Islamic religion, and Islamic traditions and legislation... I mean, it is a good subject (PART-06)

Theme (1.2): Extrinsic goal orientation

Extrinsic goal orientation complements intrinsic goal orientation, and concerns the degree to which students perceive themselves to be participating in a task for reasons such as grades, rewards, performance, evaluation by others and competition (Pintrich et al., 1991, p. 9). All of the interviewees reported various extrinsic reasons for engaging in a learning task. The themes extracted for extrinsic goal orientation are as follows (see also Figure 42):

- Sub-theme (1.2.a): Overall average

Raising the student's overall average was among the most notable reasons for engaging in this blended learning course and most of the interviewees expressed this idea. For example, PART-01 was asked why he chose to select this module for studied this semester and responded:

> Because I am concerned about my overall academic average… it is necessary for me to increase it… I have chosen to study (Salam 113) alongside the other modules... in level 3 and level 4... as I noticed that it helps to increase the overall average…we want to increase the average so we select subjects that are relatively easy....

Furthermore, PART-19 made it clear that his only reason for studying the module was grades when he said:

> I have chosen to take (Salam 113) in order to raise my grades … (Salam 113) was added to my academic schedule… so I thought to study it rather than excluding it from my plan, so that I would get grades that could help raise my overall average....

Interestingly, he made it clear what he would do if the instructor asked him to accomplish learning tasks without awarding grades. He said:

> maybe I would not do them… (PART-19)

- Sub-theme (1.2.b): Ease of the module

One of the themes emerging from the interviews is that some of the students were engaged because the learning module was easy to manage and perform. This theme was expressed by most of the participants. For example, PART-11 explained his experience of the module:

> Frankly… it was easy… it is not an intensive module… I mean, the topics can be digested….

In the same context, PART-06 suggested reasons for considering the module an easy one, and said:

> Topics of (Salam 113) are very easy because they discuss society... Islam & Society….

One of the students who confirmed the same said:

> The module is easy… it includes material that is spontaneously understood... easy... there's no difficulty… (PART-13)

- Sub-theme (1.2.c): Fixed Plan

Some students on the course reported that following the academic plan laid down by the faculty was a factor in their engagement with the learning tasks on the course. To illustrate, PART-11, who is studying financial business, wondered:

> Why were religious subjects added to my academic plan?

He suggested a probable justification, saying:

> It was added… you would say as a basic required subject. (PART-11)

The faculty imposed the module in the first place: PART-14 said:

> It was imposed on me.

Still, students were given the choice to exclude it from their current plan to postpone it until the forthcoming semester. This can be understood from the following response by the same interviewee: '*I can delay it or decline it that semester'* (PART-14).

- Sub-theme (1.2.d): Instructional style

A few students in the interviews engaged in the course because they liked the style of the instructor on the course. For example, PART-15 stated:

> I love to attend this course because there is something useful in it… some instructors can make you love it through their way of teaching or the method of supervision, even if the curriculum is very hard… our instructor makes us accept the curriculum.

He was asked what he liked about him in particular, and said:

> He asks us... he invites us to raise our thoughts and views and background of any subject to make use of it... when I ask him, I get an answer promptly... (PART-15)

Furthermore, PART-16 spoke of another aspects of the instructional style, saying:

> The instructor doesn't demand a lot from us, so I can write phrases myself, and I can write in my style, using my own special expressions, and so on....

- Sub-theme (1.2.e): Balancing the load

One of the themes from the interviews is achieving a balance between difficult and easy modules as a reason for engaging in the learning materials of the course. A few interviewees indicated this idea. For example, PART-06 suggested that:

> Compared with other subjects… this subject is easy... and because of its limited hours credit… it is a good idea to have it in the plan… because it is easier... than the other subjects… like chemistry, physics and mathematics…

He also emphasised this reason:

> This encouraged me not to exclude it... other subjects... such as chemistry would be excluded... but a subject such (Salam 113)… no… not to be excluded… not possible even 1% that I would exclude it… not at all… because it is easy… PART-06

- Sub-theme (1.2.f): For change

A few students took this module to achieve some variety in the kind of subjects that they were studying. For instance, PART-04 stated:

> I mean the course timetable did not show this module, because I have other major modules. Neither was it in term, but I chose it as a sort of change… Scientific subjects all the time?! I said to myself…

Unit analysis (1.3): Task value

Task value refers to 'students' perceptions of the course material in terms of interest, importance, and utility' (Pintrich et al., 1991, p. 11). This is the second motivational aspect and it was explored via the following interview question:

What do you think about the learning tasks in this course?

Most of the participants reported various perceptions in relation to this interview item. However, the themes that emerged may be classified into positive and negative perspectives, which in turn include further sub-themes, introduced as follows (see Figure 43):

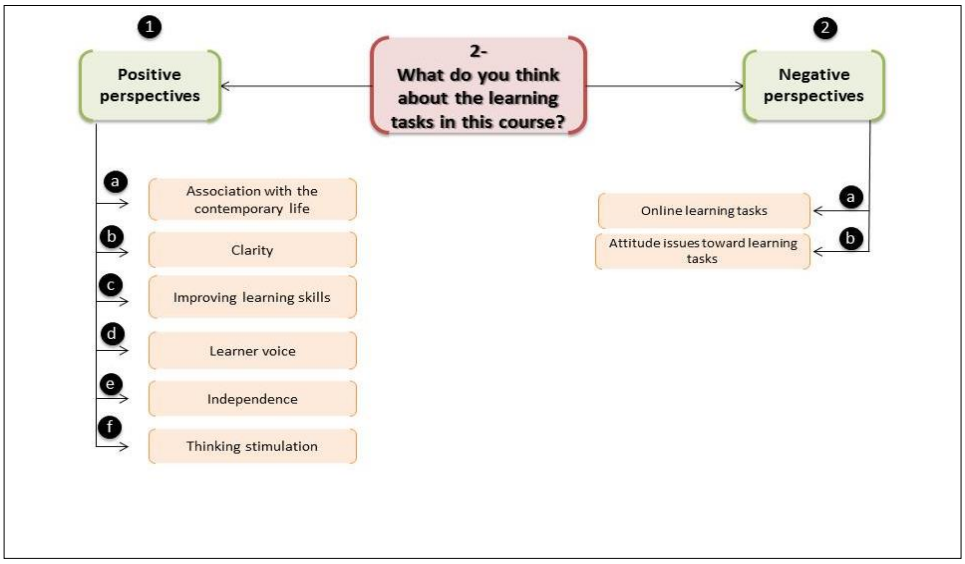

Figure 43: Merged themes of the task value aspect

Theme (2.1): Positive perspectives

The positive perspectives of the learning tasks include the aspects that were appreciated by participants. Most referred to such aspects from various perspectives. These include the following sub-themes:

- Sub-theme (2.1.a): Association with the contemporary life

This sub-theme refers to the idea of the student evaluating positively the learning task as a task associated with contemporary life. A few interviewees indicated this idea. For example, PART-10 explained his experience with one of the learning tasks in the course in which he said:

> I remember the first assignment... because I tried my best with it… on the association the instructor made between the module of (Salam 113) and contemporary life… the task to be addressed was: Illustrate the impact of new communication devices on social ties in the community... it was really a very important topic.

Moreover, PART-19 talked about one of the learning tasks on the reasons for divorce, stating:

> Because of... the problems in our society... we get to know the reasons for divorce and try to solve them…. I liked that.

Finally, a third student said:

> I told you from the beginning, it is from the real life that we live in, and the subject of (Salam 113) is a living reality… for example, he gave us our first assignment about the Promotion of Virtue and the Prevention of Vice (i.e. an official organisation that is responsible for moral security in Saudi society)... although the question is basically about the members of that committee, the assignment was addressing something that relates to the whole community… (PART-07).

- Sub-theme (2.1.b): Clarity

This sub-theme relates to the notion of the student evaluating the learning tasks positively as direct and simple tasks. This was expressed by a few participants. For illustration, PART-01 gave his opinion about the learning tasks in the course by saying:

> It was easy…beautiful… it was simple with direct investigations….

He then explained the idea of direct questions by saying:

> I mean direct questions to the student… there is nothing such as ‘explain this’…’explain that’… it is always about mentioning… I frankly like direct questions… I don’t like indirect questions.

He gave an example of such inquiries:

> Mention the community foundations?… that's a direct question… mention the factors that strengthening the social relations among people…

- Sub-theme (2.1.c): Improving learning skills

This sub-theme is about statements made by students that indicate that the learning task helped them to improve their learning skills. A few interviewees expressed this idea. PART-16 was positive about the learning tasks in the course. He said:

> In the past I used to utilise the 'copy and paste' technique in my learning tasks… but now I am getting more able to collect information and draw conclusions myself, write it up and prepare the solution then send it all to the instructor directly… it's an excellent thing.

In addition, he appreciated the learning tasks in the course because:

> It makes me search, check, ask, and get help from others.

One of the students, explaining the type of learning tasks that he preferered, suggested the same idea. He said:

> I prefer a question that focuses more on aspects of research because it improves the learning skills of the student and his way of thinking.... If he has a negative way of thinking, he could try to improve it (PART-17).

He added that the assignment should not be conducted by:

> copying from the book without gaining any benefit... I like to search and conclude and answer using evidence from the internet... everything is available nowadays… (PART-17).

- Sub-theme (2.1.d): Learner voice

This sub-theme is about the positive feelings of participants toward the learning tasks in the course, because they gave a space for their voice. Some participants indicated such an idea. For illustration, PART-10 was positive about learning tasks. He suggested that:

> Actually, they were so interesting... it motivated our thinking… it caused the individual to search for answers, I mean… I don't search for only one answer, instead I search for many possible answers and reformulate them according to my understanding… convey it to the instructor in my own style… I mean I do not use the words or style of someone else… such as someone said so and so… or hypothesized so and so… such answers have become so boring… as a matter of fact, I find this type of question in this subject very exciting...

- Sub-theme (2.1.e): Independence

This is about responses mentioning positive attitudes toward a learning task encouraging independence. This was expressed by a few interviewees. For example, PART-15 stated:

> I like the learning tasks in the course… it makes me rely on myself… I collect information through all the sources available and then write it on paper so that I can study it and write down things that catch my attention, organize it and show it to the instructor...

- Sub-theme (2.1.f): Thinking stimulation

A few students liked the learning tasks because they stimulated their thinking. For instance, PART-15 reported that:

> The course instructor asks us a question... the aim is not to get the answer from a notebook or print it from the internet and record it, but through thinking….

Another student on the course replied:

> There are times when I like and feel happy with the learning tasks... I feel happy with them... because I spend my free time thinking and trying to write model answers... to get the best answer… (PART-12)

Theme (2.2): Negative perspectives

Negative perspectives of learning tasks include the aspects not appreciated by participants. A few participants expressed negative appreciation on some points, including the following sub-themes:

- Sub-theme (2.2.a): Online learning tasks

This is about learners on the course who believe that conducting tasks via Blackboard decreased their enthusiasm and a few made reference to such an idea. As PART-01 said:

> I mean, I ‘don`t’ want to go back on Blackboard… it decreases my enthusiasm… those who want to relax… who are looking for relaxation, they do not come to class… some of them now want Salam 13, for example, to be taught as fully online learning… I feel that when the exam comes... those students will have no idea of what is happening around them…

However, he was the only interviewee who expressed quite such a negative perception of online learning tasks.

- Sub-theme (2.2.b): Attitudes toward the concept of learning tasks

Some students on the course clearly stated their negative attitude toward the idea of learning tasks. This was expressed by a few participants. For example, PART-19 said:

> I am not enthusiastic about answering assignments given to us by the instructor in this course, or on any other course either….

He then gave his reason:

> I find it exhausting... no more, no less … I study for two weeks before the exam... that is it... I do not find out anything about the learning tasks... I find that the assignments have no reason… I do not find out anything about them... because study is only for just before the exams... (PART-19)

Unit analysis (1.4): Control of learning beliefs

Control of learning beliefs is about 'students' beliefs that their efforts to learn will result in positive outcomes. It concerns the belief that outcomes are contingent on one's own effort, in contrast to external factors, such as the teacher' (Pintrich et al., 1991, p. 12). This third motivational aspect was explored in the following interview question:

> **How would you describe your own efforts to learn in this course?**

Most interviewees expressed varying perceptions in relation to this interview item. The themes that emerged may be classified into positive and negative indicators, which, in turn, include further sub-themes,. These are introduced as follows (see Figure 44):

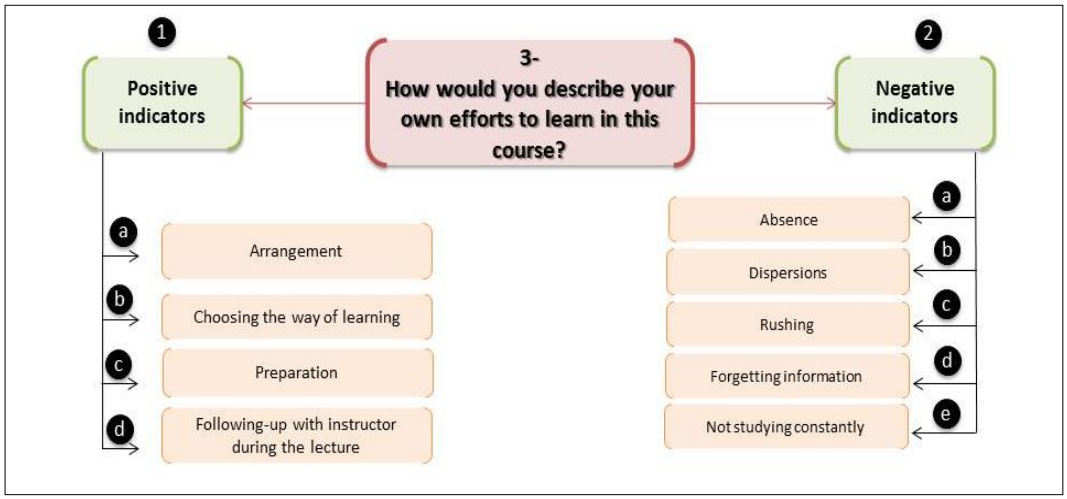

Figure 44: Merged themes of control of learning beliefs aspect

Theme (3.1): Positive indicators

The positive indicators are about responses that reflect a positive control of learning beliefs about the students' efforts on the course. Some participants referred to such positive indicators from various perspectives. These include the following sub-themes:

- Sub-theme (3.1.a): Arrangement

This sub-theme is about the students showing an ability to arrange conflicting learning tasks for different modules in order to concentrate more on one of them. A few interviewees indicated this idea. For example, PART-01 said:

> I am confident that I would achieve full marks in the last exam because it was easy... the exam was easy and I studied… that day I had another exam… so I postponed this one to another day, as the teacher allowed us to do so... God bless him…and he made it easy for us to achieve a high grade…

- Sub-theme (3.1.b): Choosing the way of learning

This sub-theme is about students on the course describing the effort involved in choosing a learning style to suit both them and the subject. This was expressed by a few interviewees. For instance, PART-10 stated:

> I am confident about my result in the exam because I first studied the subject… using the best method for me... and suitable for this type of subject… or subjects that require memorization…

- Sub-theme (3.1.c): Preparation

This sub-theme is about students on the course feeling positive about the outcomes of their effort because they prepared well for the learning tasks. A few participants indicated this idea. As PART-01 illustrates:

> I am confident about my result for the course…. I spent two days before the exam studying… I did not leave the house to go anywhere…

- Sub-theme (3.1.d): Following the instructor during the lecture

This is about a student on the course describing how following the instructor during the lecture helped him to achieve a good result. A few interviewees reported this idea.

PART-05 explained the reason for his confidence in achieving a high mark in the subject:

> I stayed right with the instructor… I followed him while he explained the points on the page… during lectures I have a blank page on the right where I write notes…

Theme (3.2): Negative indicators

Negative indicators are responses that reflect a negative control of learning beliefs in the students' efforts on the course. Many participants referred to such indicators from various perspectives. These include the following sub-themes:

- Sub-theme (3.2.a): Absence

This relates to participants reporting that absence during the course was a negative effort that can affect learning outcomes. A few participants referred to this idea. To illustrate, PART-11 explained the reason for his low level of confidence in achieving a high mark in the subject, saying:

> There were many lectures which I did not attend… so I missed a lot… the number of days has not been announced yet... but the instructor knows that I was absent for almost six lectures after Hajj vacation (i.e. a national holiday during the Pilgrim period)… but in fact... most of these absences were because I was sleeping in the morning and not going to University…

- Sub-theme (3.2.b): Dispersion

This relates to participants' sometimes disrupted concentration: they talked about displacement activity during the course as an indicator of their negative effort. This was expressed by a few interviewees. As PART-01 said:

> Some of the students ignore the lecturer during the lecture... they 'don`t' pay him any attention… they spend most of the class accessing their Blackberry…

- Sub-theme (3.2.c): Rushing

A few students on the course reported rushing, which indicates a negative learning effort. In illustration, PART-16 said:

> I made a very… very big mistake in the exam, the problem was that I was in a hurry. I had seen that the questions were simple... and one was about the

> attributes of society… but I thought it was about the foundations of society… so I answered it wrong… I know the correct answer when I concentrate on a question, but my problem is rushing, which causes me some worry...

- Sub-theme (3.2.d): Forgetting information

This sub-theme reflects responses of some of the students on the course who reported forgetting information that they had already studied as a negative indication of their learning effort. A few interviewees reported this idea. For example, PART-06 gave his reason for not achieving a high score for the course:

> Because in the exam we had a question... but I did not remember the answer... I tried over and over to remember but I could not …

- Sub-theme (3.2.e): Not studying constantly

This reflects the responses of some students on the course who reported not studying constantly, an indication of their negative learning effort. As indicated by a few participants, PART-09, for example, reported his reason for not gaining a high mark for the course:

> The problem is not in the subject.… It is our problem… if we study for the subject constantly… the problem will be solved….

Unit analysis (1.5): Self-efficacy for learning and performance

This fourth motivational aspect has two main elements: expectancy of success and self-efficacy beliefs (Pintrich et al., 1991). The qualitative results of these two elements will be represented under the following sub-titles.

a. Expectancy of success

Expecting success refers to performance expectation and relates specifically to task performance (Pintrich et al., 1991, p. 13). This aspect was investigated in the following interview question:

> **What are your expectations about your ability to succeed in this course?**

Most of the interviewees expressed various perceptions in relation to this item. However, the emerging themes may be categorised into two main themes: distinction

grade and lower than distinction grade expectations, including further sub-themes as follows (see Figure 45):

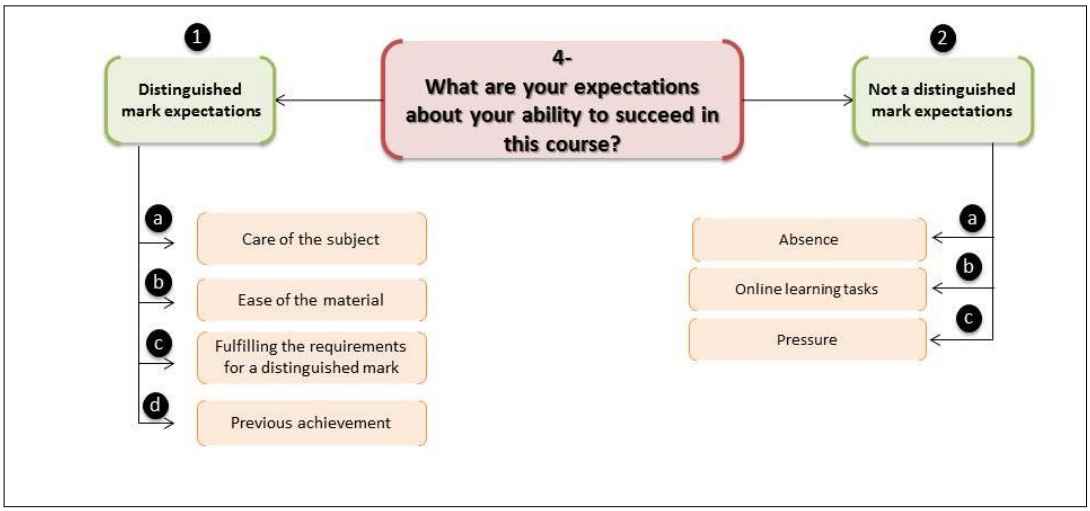

Figure 45: Merged themes of the expectancy aspect

Theme (4.1): Distinction grade expectations

The distinction expectation is about responses from interviewees that reflect an expectation of achieving a distinction on the course. Many participants reported such expectations and the reasons included the following sub-themes:

- Sub-theme (4.1.a): Care about the subject

This relates to the response of some interviewees that they expected to achieve a distinction because they cared about the subject. A few participants referred to this idea. To illustrate, PART-01 reported that:

> Those whom care will concentrate on easy subjects to increase their overall rate… I mean they ‘don`t’ neglect it...

- Sub-theme (4.1.b): The ease of the material

This is about the response by some students that they expect to achieve a distinction because the subject was easy. For example, PART-14 explained the reason for his positive expectation:

> Because the subject is easy, even for difficult questions you can extract the answer from your mind… I think I will obtain high marks.

- Sub-theme (4.1.c): Fulfilling the requirements for a distinction grade

This reflects the responses by some participants that they expect to achieve a distinction because they fulfilled the requirements. A few interviewees reported this idea. For instance, PART-15 affirmed that:

> I am expecting full marks in this subject because of my performance in the exam and the learning tasks, which I accomplished on Blackboard... such as research tasks… summary of the subject etc…

- Sub-theme (4.1.d): Previous achievements

This is about responses by some students that they expect to achieve a distinction because they achieved one in similar subjects. A few participants referred to this idea. As one of the participants said:

> I will achieve A+ in this course… I am confident because my results for the previous two Islamic Culture (Salam 111 and Salam 112) subjects were A+… (PART-02)

Theme (4.2): Expectations of lower than a distintinction grade

This main theme is about responses from the interviews that reflect an expectation of not achieving a distinction on the course. A few participants reported such expectations and the reasons included the following sub-themes:

- Sub-theme (4.2.a): Absence from lessons

This relates to responses stating that students do not expect to achieve a distinction because of absence from lessons. This was expressed by a few of the interviewees. To illustrate, PART-11 explained why he does not expect to achieve an A or A+ in this course:

> Because, foremost... my absenteeism is an influence....

- Sub-theme (4.2.b): Online learning tasks

This participant did not expect to achieve a distinction because he did not like online learning tasks. A few participants shared this idea. As PART-11 stated:

> It's because of the online learning tasks… I do not do them... because I am not committed to online technology... I do not relate to it much... and it affects me... I do not do any of it… I am not interested in it at all…

- Sub-theme (4.2.c): Pressure

This is about students expecting to achieve below the top grade because of pressure due to studying many subjects at the same time. A few interviewees reported this idea. For example, one said:

> If I had only Salam 113... I would get A+… but I have another six subjects… all of these put pressure on me... I have computer science and mathematics… (PART-19)

He emphasised the same idea, saying:

> No, I can't get A+… that is difficult… my ability, everyone has his own level of capacity... and understanding… so I think that this is my ability… I have tried many times at subjects besides Islamic 113... I have tried with other subjects.

b. Self-efficacy beliefs

Self-efficacy is 'a self-appraisal of one's ability to master a task. Self-efficacy includes judgements about one's ability to accomplish a task as well as one's confidence in one's skills to perform the task' (Pintrich et al., 1991, p. 13). This aspect was explored by the following interview question:

> **How would you assess your ability to master a task in this course?**

Some of the interviewees stated several perceptions in relation to this interview item. These themes may be classified into two main themes: positive and negative self-appraisal, and include further sub-themes as follows (see Figure 46):

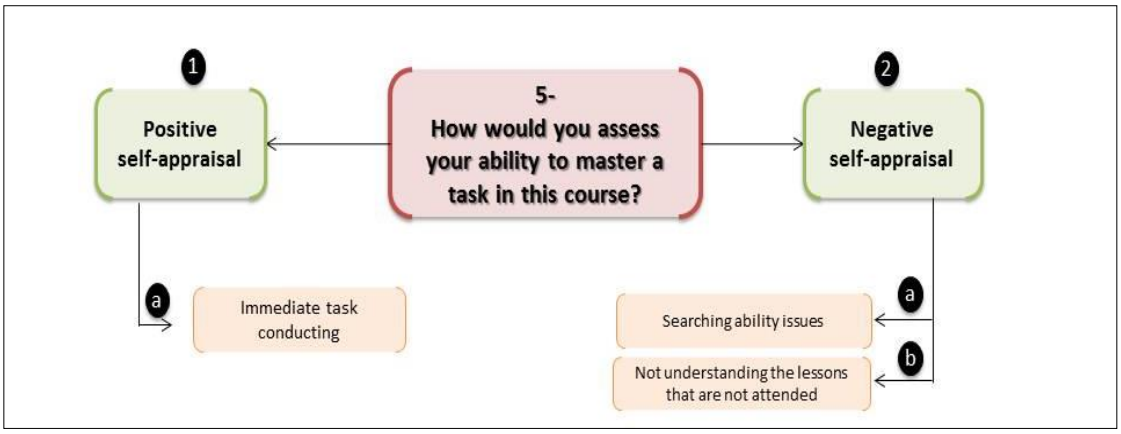

Figure 46: Merged themes of self-efficacy aspect

Theme (5.1): Positive self-appraisal

Positive self-appraisal is about positive responses from the interviews that reflect students' ability to master a task. A few participants indicated this idea. The reasons for positive self-appraisal include the following sub-theme:

- Sub-theme (5.1.a): Immediate task conducting

This is about participants who believe that they have achieved a positive self-appraisal of their ability to master a learning task because they undertook the learning tasks without delay. A few interviewees reported this idea. For example, PART-18 replied to the interview question by saying:

> For me, there were no difficulties, I answered them without any delay...

Theme (5.2): Negative self-appraisal

Negative self-appraisal is about negative responses from interviews that reflect issues relating to students' ability to master a task. This was stated by some of interviewees. The reasons for such negative self-appraisal include the following sub-themes:

- Sub-theme (5.2.a): Not understanding lessons that are not attended

This is about students emphasising that they have problems understanding topics for which they did not attend lessons. A few participants indicated this idea. For instance, PART-15 stated that:

> During the holyday… I was reviewing and memorizing the learning materials… but the only material that I understood was the one for which I

> attended class and the other, which I did not attend… I just reviewed it and just read it… my difficulties relate to the lessons that I did not attend, and it means that if I had attended them I would now have no problem.

- Sub-theme (5.2.b): Searching ability issues

This refers to students reporting problems in conducting a research task. This was expressed by a few interviewees. As PART-03 reported about one of his research tasks in the course:

> it was difficult for me to research… I did not use the internet… because the instructor said to write your answer in your own style... so I did not like to research… I do not have a background in the topic... so I did not research…

Unit analysis (1.6): Test anxiety

Test anxiety is a motivational aspect believed to consist of two components: a worry or cognitive component and an emotional component (Pintrich et al., 1991). Its qualitative results will be illustrated through the following sub-headings.

a. Test anxiety (the worry component)

The worry component of test anxiety refers to 'students' negative thoughts that disrupt performance' (Pintrich et al., 1991, p. 15). This was investigated by the following interview question:

> **How would you describe your thinking about having a test in this course?**

Most participants contributed to this interview item by expressing different perceptions. The themes that emerged may be classified into 'not worried' and 'worried thoughts about the test'. These include sub-themes as follows (see Figure 47):

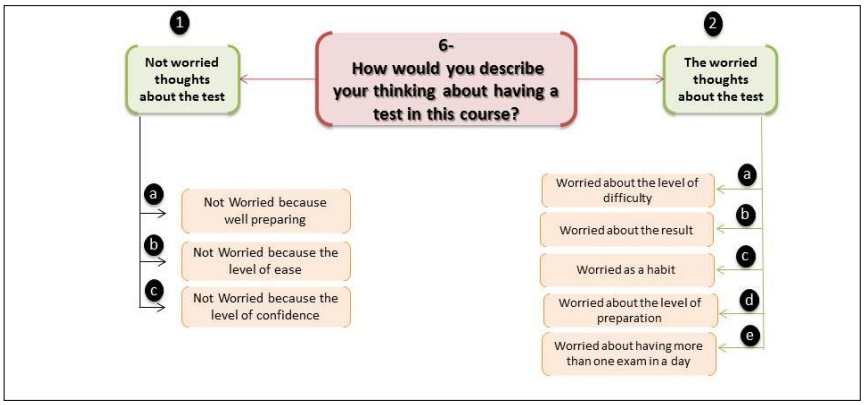

Figure 47: Merged themes of test anxiety (thought component)

Main theme (6.1): 'Not worried thoughts' about the test

The 'not worried' aspect is about responses from participants that reflect positive thoughts before the test. This aspect was reported by some participants. The reasons for such thoughts included the following sub-themes:

- Sub-theme (6.1.a): Not worried because of being well prepared

This reflects that students had no worried feelings before the examination because they were adequately prepared for the task and was indicated by a few participants. For example, PART-12 said:

> No… before the exam I was not worried… for example... the exam was at 8 o'clock… as I left for the University at 7 o'clock… I told myself that I gave it my best effort... I worked hard and studied and did everything…

- Sub-theme (6.1.b): Not worried because of the level of ease

This is about students not feeling worried before the examination as they believed the subject was easy. This was expressed by a few interviewees. To illustrate, PART-09 stated:

> Before the test I felt that the subject was easy because it dealt with social matters… so I didn't feel worried…

- Sub-theme (6.1.c): Not worried because of the level of confidence

This relates to students who were not worried before the examination because they were confident that they would achieve a good grade. A few participants referred to this idea. For instance, PART-05 described his feeling before the test:

> I felt confident that I would be awarded all 25 marks.

Main theme (6.2): Worried thoughts about the test

The worried aspect is about responses from the interviewees reflecting negative thoughts before the test. These negative thoughts were stated by many participants. The reasons included the following sub-themes:

- Sub-theme (6.2.a): Worried about the level of difficulty

This is about students who reported a worried feeling before the examination because they were thinking about its difficulty. Some interviewees reported this idea. For instance, PART-19 said:

> I was worried about the type of questions… will it be direct questions… for example: illustrate, mention… or will it be like the questions in the assignments... for example associate, relate, how it can be useful when… and so on.

- Sub-theme (6.2.b): Worried about the results

This relates to students who reported a worried feeling before the examination about not attaining full marks. This was expressed by a few interviewees. For example, PART-14 reported:

> I feel anxious… I am afraid about not getting a high score…

- Sub-theme (6.2.c): Worried as a habit

This is about participants on the course who reported worried feelings before the examination as a habit of theirs, before any examination. A few participants referred to this idea. For illustration, PART-20 said:

> Everything was ok... but before the exam... I started to feel stressed... this always happens to me, before any exam…

- Sub-theme (6.2.d): Worried about the level of preparation

This refers to responses mentioning a worried feeling before the examination because of not being fully prepared. This was stated by a few of the interviewees. As PART-03 replied:

> I was bit worried because I did not study for the test very well...

- Sub-theme (6.2.e): Worried about having more than one examination in a day

This relates to students on the course who reported worried feelings before the examination because they had more than one examination that day, as indicated by a few participants. To illustrate, one stated:

> I felt a little tense… three exams in one day. (PART-07)

b. Test anxiety (the emotional component)

The emotional component of test anxiety refers to affective and physiological arousal aspects of anxiety (Pintrich et al., 1991, p. 15), explored by the following question:

> **How would you describe your feeling when you have a test in this course?**

Most of the participants expressed perceptions about this interview item and the themes that emerged may be divided into two main themes: 'not worried' and 'worried feelings about the test': these include further sub-themes as follows (see Figure 48):

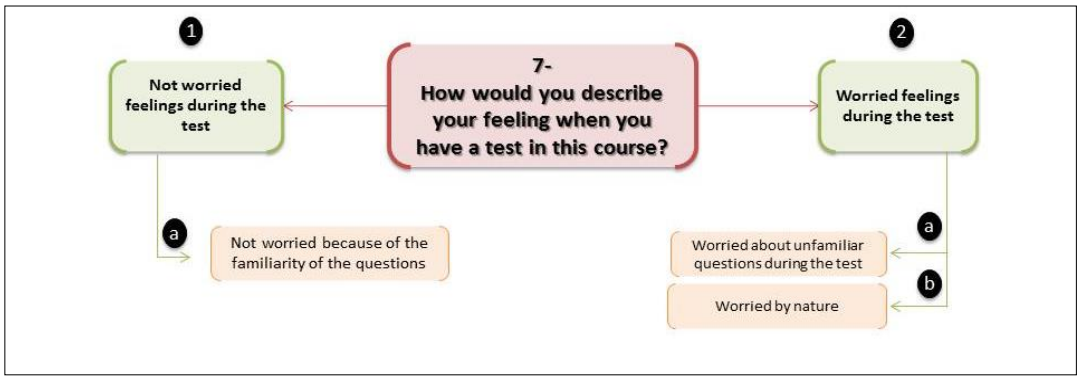

Figure 48: Merged themes of test anxiety (emotional component)

Main theme (7.1): No worried feelings during the test

This aspect is about responses from the interviews that reflect positive feelings when tested for this course. Many interviewees reported this positive feeling. The reasons for such feelings included the following sub-themes:

- Sub-theme (7.1.a): Not worried because of familiarity with the questions

This relates to students who reported that they felt comfortable during the test because there were things in the test that they studied and could answer. This was expressed by many of the interviewees. For instance, one of the students said:

> I felt comfortable during the test because there were things that I studied and I can answer them (PART-15)

Main theme (7.2): Worried feelings during the test

The worried aspect is about responses from the interviews that reflect negative feelings during a test for this course. Such negative feelings were stated by a few participants. The reasons for such feelings included the following sub-themes:

- Sub-theme (7.2.a): Worried about unfamiliar questions during the test

This is about students reporting worried feelings during the test because there were questions with which they were unfamiliar. A few participants referred to this idea. For instance, PART-15 said:

> I felt worried when I saw a question that I was trying to remember.

- Sub-theme (7.2.b): Worried by nature

This refers to students who reported a worried feeling during the test because it is part of the nature of any test, as expressed by many interviewees. As PART-10 reported:

> Usually at the beginning there is some worry that's natural... in any test... all people are afraid about the phrase (test)… it is a type of phobia relating to the word (test)…

It may be concluded from the qualitative study of the motivational aspects of self-regulated learning that the learners on this blended learning course could be intrinsically engaged in the learning tasks for various reasons: updating information, the relevance of the learning materials to their future life, a preference for the subject itself and the priority they accord to the learning content over other subjects. Moreover, several possible reasons for being extrinsically engaged with a learning task on this course were reported, such as achieving high grades to enhance their grade point average (GPA) and the ease of taking the module. Most of the participants appreciated both the learning materials and the subject matter; this would be explained qualitatively by their associating them with important aspects of their everyday life, the improvement in their learning skills and independency skills, respect for their voice and the stimulation of their thinking abilities.

Learners are conscious of a relationship between their learning consequences (either good or bad) and the effort that they put in during the course. Furthermore, the qualitative part of the study revealed different issues that could be behind a decrease in

the level of their self-efficacy in learning and performance, such as absence from classes, a low level of readiness to master online learning tasks by developing vital skills, the stress of multiple learning tasks at the same time and low self-esteem.

Reflecting on the aspect of test anxiety, the level of worrying among participants can be understood from a number of perspectives such as: a) thinking about the difficulty of the examination, b) habitual worrying before any examination, c) being less than confident about their preparation, d) having more than one examination on a single day and e) identifying a question in the test that they do not recognise. However, not all learners on the course had the same level of worrying, as illustrated qualitatively by several possible reasons such as being well prepared before the examination, being confident about achieving a good grade, the difficulty of the subject and finding aspects that were studied yet cannot be answered. Finally, three types of emotional feelings associated with test anxiety were observed among some of the participants, namely being anxious, being stressed and being tense. Further comparison with the quantitative findings will be provided later in the discussion chapter.

4.2.2. The cognitive and metacognitive aspect for learners on a blended learning course at King Khalid University

This will be analysed from the following aspects: rehearsal, elaboration, organisation, critical thinking, planning, monitoring and regulating aspects (Pintrich et al., 1991). The qualitative outcomes for the cognitive and metacognitive aspects of self-regulated learning among the participants will be presented under the following titles (refer to Appendix G: Summary of emerging themes for the third research sub-question).

Unit analysis (2.1): Rehearsal

Rehearsal is about:

> reciting or naming items from a list to be learned. These strategies are best used for simple tasks and activation of information in working memory rather than acquisition of new information in long-term memory. These strategies are assumed to influence the attention and encoding processes. (Pintrich et al., 1991, p. 19)

The following interview question addressed this aspect:

> **How do you learn new concepts in this course?**

Most of the participants responded positively to this interview item by providing different strategies when learning new concepts in this course. The following themes were drawn from the interviewees' answers (see Figure 49):

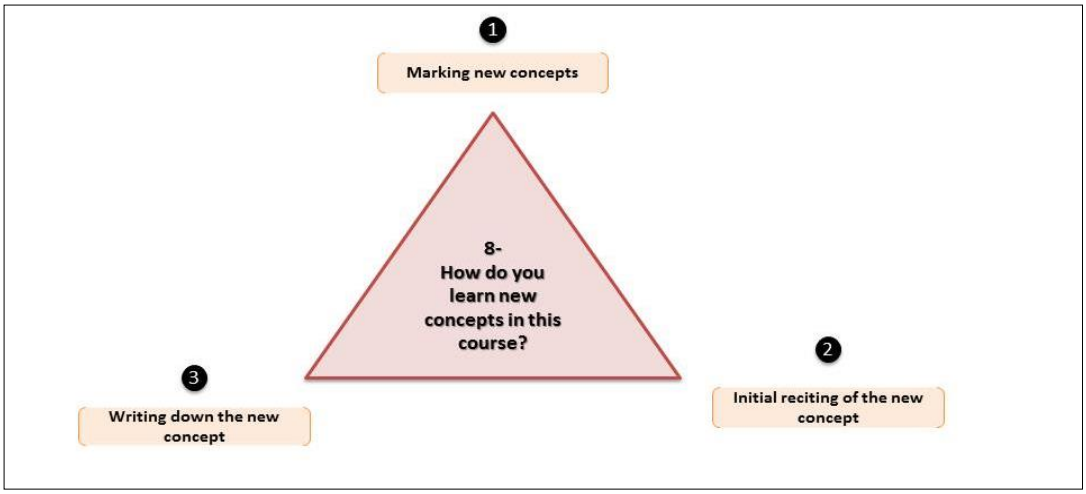

Figure 49: Merged themes of the rehearsal aspect

Main theme (8.1): Marking new concepts

One of the techniques that emerged was that some of the students learn new concepts by marking them in such a way to make them notable at a second stage. This was expressed in different forms by a few of the interviewees, for example PART-14:

> I would put a line under it with a pen….

He added:

> I would write on it that is important or I would put a sign or star (PART-14)

PART-17 expressed that:

> Underlining what it is necessary... I use more than one pen... I use felt-tip. Especially red...

Main theme (8.2): Initial recitation of the new concept

Another technique used by students on the course when learning new concepts is reciting the concept, initially, as indicated by some participants. For instance, one of the participants said:

> I study it... at the start of studying... I read the book, ordinary reading… the second time… I read it once or twice... I read every lesson twice… (PART-11)

In addition, PART-16 emphasised that:

> I use the method of summary.... I mean I read then I close the book, and then write the definition (in my mind) and that is my method, always.

Finally, PART-02 expressed that:

> I would read it by eye several times… then I would memorize it and try to understand what it means…

Main theme (8.3):Writing down the new concept

Other students write down the new concept in a way that helps them to focus on it in a second studying phase. Many participants referred to this idea. For illustration, PART-11 replied to the interview question saying that:

> I would write them….

PART-13 reported that:

> I read it couple of times… then write it….

Finally, PART-05 said:

> I write it once… twice… thrice until I memorize it….

Unit analysis (2.2): Elaboration

Unlike the rehearsal aspect, elaboration strategies:

> help students store information into long-term memory by building internal connections between items to be learned. Elaboration strategies include paraphrasing, summarising, creating analogies, and generative note taking. These help the learner integrate and connect new information with prior knowledge. (Pintrich et al., 1991, p. 20)

This aspect was investigated by the following interview question:

> **How do you store information in this course into long-term memory?**

Most of the interviewees reported positively to this interview question by providing various strategies used when storing information in this course into long-term memory. The themes that emerged are presented under the following sub-titles (see Figure 50):

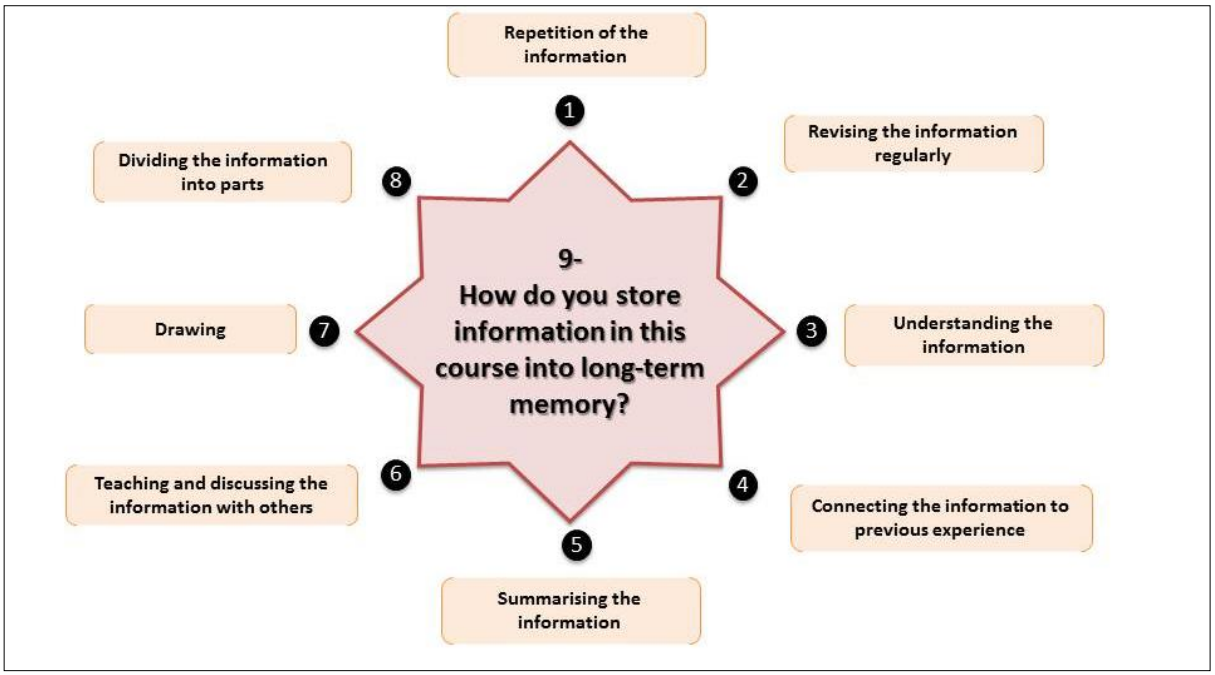

Figure 50: Merged themes of the elaboration aspect

Main theme (9.1): Repetition of the information

One of the most notable approaches mentioned in interviews was the repetition technique, in which students repeat the information that they want to store in their long-term memory. This was expressed by many participants in two different ways: repetition by reading and repetition by writing. The reading repetition approach was mentioned by PART-02:

> By reading … reading it more than once... I can memorize it.

PART-12 explained the other repetition approach:

> I write it... this is the third time... then I write it for the fourth time... then I move to the next... after four hours of revision… I get back to it... to explain and define... I write it all again…

Main theme (9.2):Revising the information regularly

A few students reported that they revised the information that they would like to store in their long-term memory on a regular basis. For example, one participant said that:

> I would revise every two weeks... once every three weeks... there is nothing else for it… (PART-12)

PART-19 shared the same idea, which he expressed as:

> First I would write it... every week I would revise it once or twice… so that I can remember it… but if I did not write it, I would forget it in two weeks after the exam… so I must revise it … revise it… in order to memorize it....

Main theme (9.3): Understanding the information

Understanding was among the strategies that the students use in order to store it in their long-term memory, as indicated by some participants. For instance, PART-10 responded to the interview question by saying:

> I try to comprehend… I don't tend to learn it by heart….

He explained further by saying:

> I try to understand… because memorizing comes after understanding… as long as I understood the definition, the problem is sorted out, I can formulate the information in my words… as I trust my ability to reformulate the answers… I can convey it to the instructor on the basis of my understanding… I mean, the essence of the definition.

Furthermore, PART-08 stated that:

> Frankly I am very bad at memorisation… I mean memorising is my last choice, mostly I try to understand… and comprehend the general meaning, when questions are put to me, I can answer in my own way….

Main theme (9.4): Connecting the information to previous experience

A few students in the interviews believed that connecting the information to their previous experience would help them to store it in their long-term memory. To illustrate, PART-03 answered the interview question by saying:

> I link it to my social life... such as relating some information to other information… that you have seen in your life... something you have learned… in this way it will be fixed in your mind...

PART-04 replied that:

> I try to connect it to things that have happened to me in life.

He then gave an example, saying:

> like the concept of Shura (i.e. consultation). First, you read the newspapers… get some information from the internet…. So, what is the meaning of Shura? I reached the meaning… then I connected it to Majlis

> Ash-Shura (i.e. the Consultative Council in Saudi Arabia). Thus, I still remember the meaning of this word and its definition... (PART-04)

Main theme (9.5): Summarising the information

Another way in which participants used to store information into their long-term memory is summarising the information. A few participants referred to this idea. An example of such an approach was reported by PART-16 in which he stated that:

> I use the method of summary... I mean I would read then I would close the book, and then write the definition (from memory) and that is my method, always….

PART-05, who applies the same method, said:

> I make a summary… for example I write down the main ideas from a text to make a summary… I try to understand it and then read the subject… the main ideas are usually one word, two or maybe three, and the rest of text may contain four or five lines that you explain from your own understanding and it can be summarized in one and a half lines.

Finally, one of the participants said:

> If it was long I try to shorten it and cut something out... starting from the first line until the last line... if it was long... I mean three... or four lines… (PART-06)

Theme (9.6):Teaching and discussing the information with others

Other students mentioned the idea of teaching and discussing information with others in order to store information in their long-term memory. This was expressed by a few interviewees. An example was reported by PART-11, who replied to the interview question by saying:

> I would tell my family about it... like... my father… my mother…then it stays in my mind forever…

Then he gave an example from his own experience by saying:

> One example was about the principle of tolerance… the instructor gave us stories about the tolerance of the Prophet, peace be upon him… I told my father and my mother about it… so that information remained in my mind…. (PART-11)

In addition, PART-17 emphasised the same concept by reporting that:

> I would discuss it with my communities... with my brothers at home… with my father… with my mother... this is to memorize the information and focus... because I feel that when I explain to others... I feel that the information will be fixed in my mind…

Main theme (9.7): Drawing

Drawing shapes and figures was among the strategies that students used to store information into long-term memory. A few participants referred to this idea. For example, PART-14 answered the interview question by stating that:

> I learn it by giving it a shape… this helps me to absorb and remember it

He then gave an example of that by saying:

> The definition of community… includes the idea of 'total partial'… so I draw the icon for sub-total normally used in mathematics… so in the exam I can easily remember it.

PART-16 said:

> Yes, I use other methods such as 'concept mapping'…. I use it to study a list of ideas that need to be counted… so I draw arrows to link these concepts….

Furthermore, PART-17 affirmed the importance of drawing while studying new information:

> I believe that drawing is important... diagrams... or trees... are important sometimes… I use them in other subjects….

Main theme (9.8): Dividing the information into parts

A few students in the interviews reported that when they want to store information into their long-term memory they divide the information into parts so it is easy to tackle. To illustrate, PART-13 responded to the interview item that:

> I would try to divide the definition… make it simple…I would try to understand it... by dividing it... that is... if one understood something in this way... then that is it... one would never forget it… because it is in the subconscious mind....

Another interviewee responded to the same question by saying:

> I would divide the definition first… if the definition is long, I would divide it… to make it easy to memorize… (PART-06)

Unit analysis (2.3): Organisation

The organisational aspect is about the student being able to 'select appropriate information and also construct connections among the information to be learned. Examples of organising strategies are clustering, outlining, and selecting the main idea in reading passages' (Pintrich et al., 1991, p. 21). The following interview question tackled this aspect:

> **How do you select the appropriate information and construct connections among the information to be learned in this course?**

Most of the students in the interview responded positively to this unit of analysis by providing different strategies that they followed on this course. The following themes were revealed in the transcripts (see Figure 51):

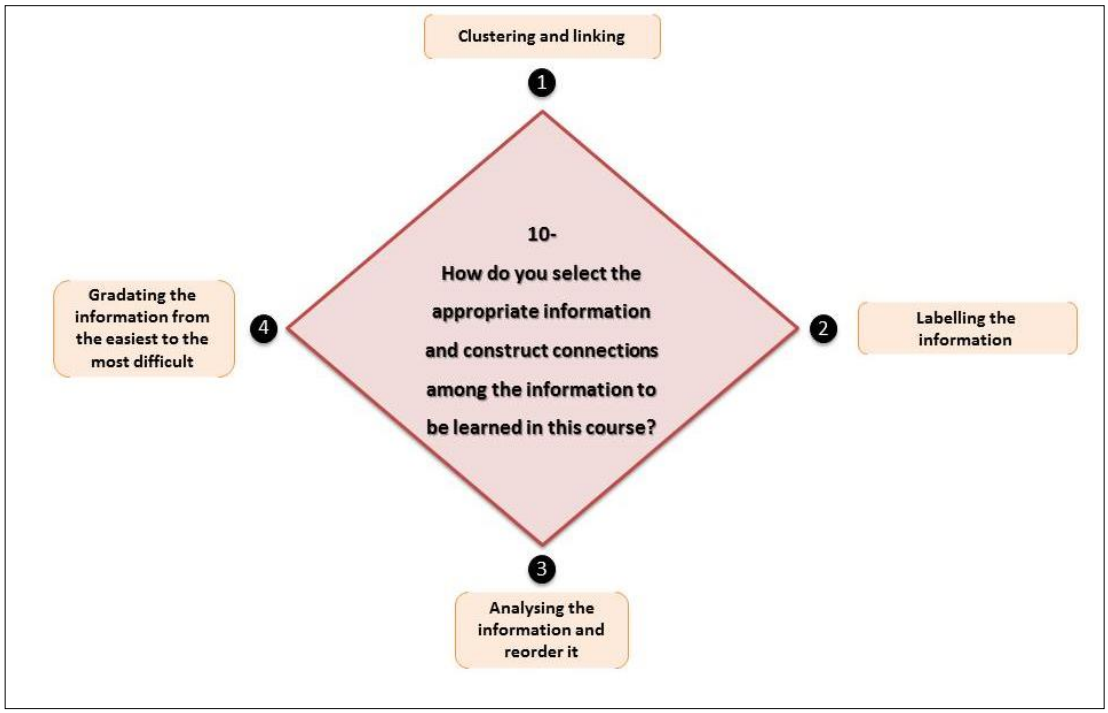

Figure 51: Merged themes of the organisation aspect

Main theme (10.1): Clustering and linking the learning content

One of the themes observed among the participants' responses is the idea of creating segments among the learning content then to link them to each other. Some participants referred to such an idea. As PART-10 stated:

> If these bits of information are related to each other, I try to segment them, then put them again in one entity while trying to deduce or establish the links between them… this might take some time but there is no problem…as

> long as I'm to understand them all… without missing any piece of information….

He then gave an example from the learning content of the course:

> Definitions…. One of the definitions that we have to study in this course is the notion of Al-Ummah (i.e. the nation)… There was a definition for the Ummah, the Muslim Ummah, the community, then the Muslim community... as far as I remember, these definitions filled six whole pages… I tried to establish a relationship between them… I established the more general meaning, which is the nation…. Then what comes next to the nation as a whole, which is society… then after society comes the branch of group… etc... then I addressed the Muslim nation in the same way…. and I tried to relate them to each other, and then find the link… (PART-10)

Main theme (10.2): Labelling the information

A few students used the idea of labelling to organise the information learned on the course. For example, PART-01 described the way that he studied a long piece of information in the course:

> I summarized it on paper… one or two sides… I did a summary in titles….

PART-20 applied the same strategy and gave an example, saying:

> For example, for the definition of society and community… there were so many pages... about 20 pages… I summarized the headings and basic points below them… the 20 pages were summarised down to only one side … this included the headings and conditions relating to them… this method was useful for me… the information came in the exam in the form of true and false questions.… I benefited from that method

Main theme (10.3): Analyse the information and reorder it

Some students on the course analysed the learning content then tried to reorder it in their own style when they wanted to organise course content. For instance, PART-13:

> if I have long piece of information... I choose its important points… I analyse it... write it on a sheet to the side… then I organize it... by this way the information is learned 100%…

Main theme (10.4): Gradating the information from the easiest to the most difficult

One of the themes observed among the students on the course when organising the learning content is the idea of grading the information from the easiest to the most

difficult, then dealing with them separately. A few participants referred to this idea. To illustrate, PART-07 replied to the interview question by saying:

> if you start with the hard topics, it will be more difficult … I would start with information that I can understand, then I would study the difficult part eventually… that is what I do while studying….

Unit analysis (2.4): Critical thinking

Critical thinking refers to 'the degree to which students report applying previous knowledge to new situations in order to solve problems, reach decisions, or make critical evaluations with respect to standards of excellence' (Pintrich et al., 1991, p. 22). This aspect was explored by the following interview question:

> **How do you normally make decisions to solve learning problems related to new situations that you encounter during your study for this course?**

Most of the participants responded to this interview question. However, the responses may be classified into external resources for solution, or responses that reflect external resources that the student refers to when solving a learning problem, and self-resources for solution, or responses that reflect self-resources that the student uses when solving a learning problem (see Figure 52).

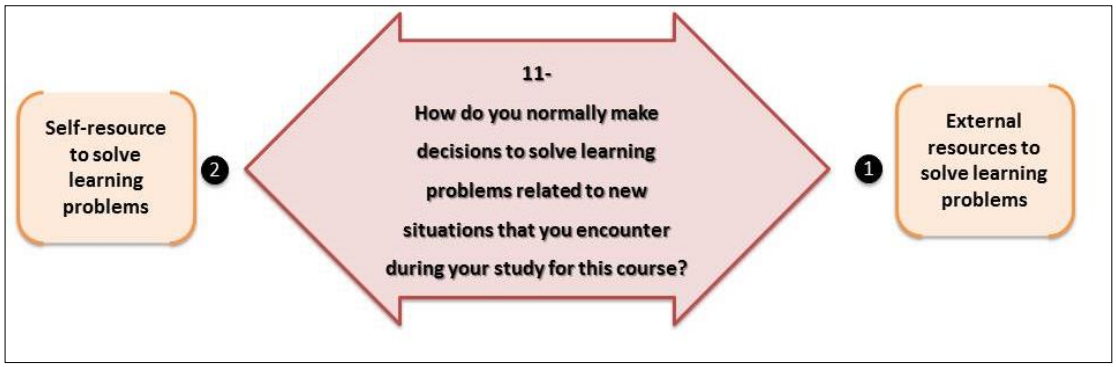

Figure 52: Merged themes of the critical thinking aspect

Main theme (11.1): External resources to solve learning problems

Many participants reported that when they encounter learning problems that need to be solved they seek the help of an external resource such as a book, colleagues, internet, family member or instructor. For example, PART-05 responded to the interview item by saying:

> I go back to the book….

PART-17 mentioned his colleagues by stating that:

> I communicate with my friends... nothing before…..

A third interviewee referred to the internet, replying that:

> I would Google it... to try to find more explanation for it so that I could understand… (PART-19)

A fourth example is given by PART-02 who referred to his family:

> First I ask my brothers… to find if they have any information…they are the closest to me... they might have studied it before….

Finally, one of the participants referred to the instructor:

> Asking the teacher… instructor of the subject to explain it for me… (PART-09)

Main theme (11.2): Self-resource to solve learning problems

Only a few participants reported information about using self-resources to solve learning problems. This may be categorised into two main strategies: memorisation and reading the context of the difficult information. PART-20 responded to the interview question:

> I would try to memorize it... if it is important… and… I could not understand it... and could not get the meaning… or it was difficult to understand… then I memorize it… I would memorize it….

Another participant answered the question by saying:

> I would try to read the whole paragraph... I try to read the subject itself... I would understand it from the title... I read... and if the subject is short… I would revise it… to see if I can understand it... could it be related to anything… (PART-03)

Unit analysis (2.5): Metacognitive self-regulation

This aspect is about the consciousness, knowledge and control of cognition (Pintrich et al., 1991). The focus in the MSLQ is on the control and self-regulation aspects of metacognition, not the knowledge aspect (Pintrich et al., 1991). The qualitative results under this aspect will be introduced under three sub-aspects: planning, monitoring and regulating (Pintrich et al., 1991)

a. Planning

The planning aspect includes various activities such as 'goal setting and task analysis, to help to activate, or prime, relevant aspects of prior knowledge that make organizing and comprehending the material easier' (Pintrich et al., 1991, p. 23). This aspect was investigated by the following interview question:

How do you usually plan for your learning task?

Most of the participants replied variously to this learning aspect. However, only some participants indicated explicitly either positive or negative perceptions in relation to this unit of analysis. For illustration, one group of responses reflected that some of the students on the course were not used to planning their learning tasks, and the other group of responses had different planning strategies. The following sub-headings report this aspect in detail (see Figure 53).

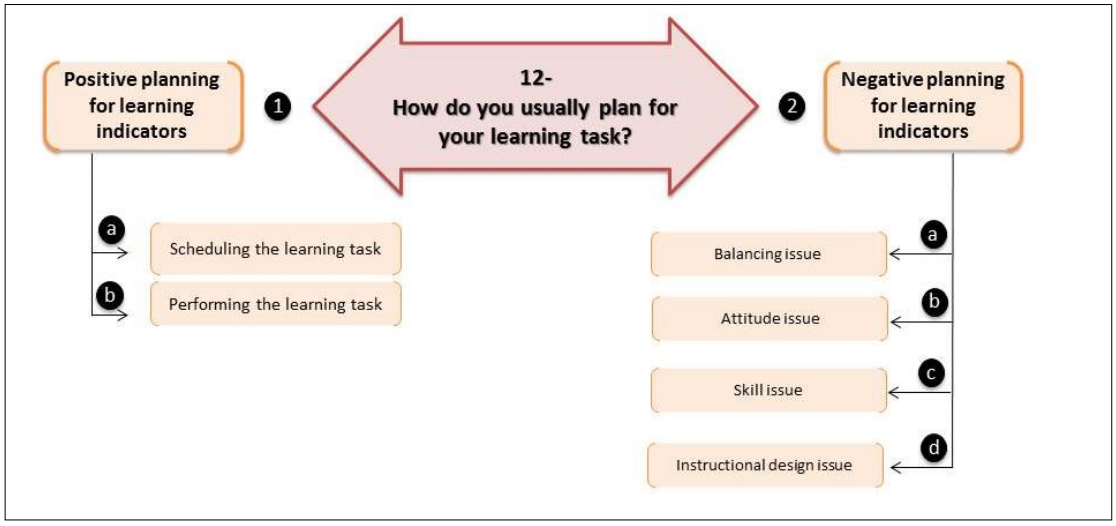

Figure 53: Merged themes of the planning aspect

Main theme (12.1): Positive planning for learning indicators

Only a few students reported the planning strategies that they apply to complete learning tasks in the course. These strategies can be classified into two sub-themes: scheduling the learning task and performing the learning task.

- Sub-theme (12.1.a): Scheduling the learning task

As PART-10 explained his experience in this regard:

> The time when we had assignments to do was in the holiday…. the holiday of the Pilgrimage period…. we had more than one assignment that needed to be conducted by research… I scheduled my time… there was a set day for the assignment in this subject… I remember it exactly… because I enjoyed doing it…. This is what I used to do when I had learning tasks…

- Sub-theme (12.1.b): Performing learning tasks

PART-10 also explained the steps he followed to accomplish learning tasks

> The first thing that I did was to write the question… I copied it by hand on a sheet of paper… I tried to decide the points required by the question… how to make use of it… then I started to formulate the idea in my mind… then I answered it in my own style and looked for evidence…

Main theme (12.2): Negative planning for learning indicators

Conversely, a few other students on the course replied that they did not plan their learning tasks. The reasons for such behaviour included the following sub-themes:

- Sub-theme (12.2.a): Balancing issue

Some of the participants indicated that they did not plan because they had other learning tasks to do, as well. A few participants referred to this idea. For example, PART-16 said:

> Frankly I didn't plan the learning task because I had an exam and sometimes I'm busy on online forums… and some instructors download tasks to the forum....

- Sub-theme (12.2.b): Attitude issue

Another student explained that his reason for not planning his learning tasks was that he did not believe that planning was important. This was presented by a few students, as PART-02 said that:

> I do not plan… I answer it directly… I do not think planning is important.

He then explained his own understanding of planning by saying:

> maybe I will understand the meaning of planning later on…

- Sub-theme (12.2.c): Skill issue

This about a response by an interviewee who reported that his reason for not planning is that he did not know how to plan. A few participants indicated this negative aspect. For instance, PART-06 said:

> I do not know... I would be lying if I said that I know how to plan...

- Sub-theme (12.2.d): Instructional design issue

A few participants admitted they knew the importance of planning, but said they did not do so because the learning task did not require the effort. PART-03 stated:

> Planning is important... but you could say... we did not have any questions… you could say that needed planning….

b. Monitoring

Monitoring activities include 'tracking of one's attention as one reads, and self-testing and questioning: these assist the learner in understanding the material and integrating it with prior knowledge' (Pintrich et al., 1991, p. 23).

The following interview question explored this aspect of self-regulated learning:

> **How do you normally judge your learning outcomes after accomplishing a learning task in this course?**

Many participants responded positively to this unit of analysis, mentioning different strategies that they usually adopt when judging their learning outcomes after accomplishing a learning task. The interviewees' answers reflected various monitoring indicators. The following themes introduce these indicators (see Figure 54):

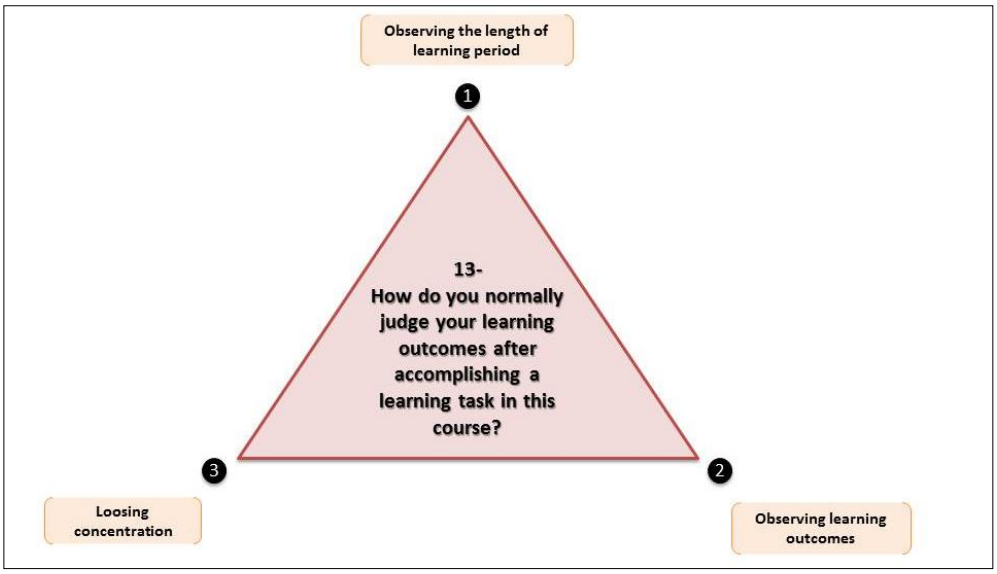

Figure 54: Merged themes of the monitoring aspect

Main theme (13.1): Observing the duration of the learning period

One of the indicator themes that the students used to monitor their learning performance is observing the duration of the learning period. A few participants referred to this strategy. For example, PART-10 was asked whether he monitored his learning performance or not, and replied:

> Yes, many times… I count time, myself, also…

He then gave an example of his own experience:

> Once during study, and after three hours of studying, I realised that all I had studied was four pages on the subject of (Salam 113)…. I tried to exert myself to make up for the wasted time over the next few hours. (PART-10)

Main theme (13.2): Observing learning outcomes

Another approach to monitoring learning performance among the participants is observing the learning outcomes at the end of the learning session. This was expressed by many of the interviewees. To illustrate, PART-11 said:

> I do not feel like I am studying right... until I finish studying... I mean finish studying the whole book... then I see if I have studied right... or not... I would ask myself a question… then see if I could answer it or not. Then I have not studied right….

PART-19 shared the same idea and affirmed that:

> I do not notice this (i.e. the final outcomes from the learning session) until I revise at the end... when I start to revise, read and memorize… this is when I can prove that I have memorized it or not… (PART-19)

Main theme (13.3): Losing concentration

Losing concentration during a learning session is one of the indicators that learners reported when monitoring their learning performance, as indicated by a few participants. For instance, PART-13 replied to the interview question by confirming that:

> I felt like that (i.e. monitoring)... I felt that I was not able to focus on the material…I was not able to understand the information… especially when the exams accumulated, one after another….

In addition, the same concept was reported by PART-12:

> Yes… it is difficult to keep studying in the same way... it is difficult... sometimes as they say... your mind shuts down… there is no more information getting into my mind... so I would rest for at least 15 minutes… half an hour....

Finally, a third participant provided an example of such an aspect:

> Once I tried to study while I was thinking of something else… I couldn't continue studying.… I felt that reading and understanding were difficult... when I covered the paper and tried to recite it, I couldn't remember a thing… I must empty my mind and concentrate on the subject. (PART-15)

c. Regulation

Regulation refers to 'the fine-tuning and continuous adjustment of one's cognitive activities. Regulating activities are assumed to improve performance by assisting learners in checking and correcting their behaviour as they proceed on a task' (Pintrich et al., 1991, p. 23). The following interview question explored this aspect of metacognitive self-regulation:

> **What normally do you do if you did not learn what you should learn from a learning task in this course?**

Most of the interviewees responded positively to this interview item by reporting various strategies that they applied when they did not learn what they should from a learning task on this course. The following themes emerged from the responses (see Figure 55):

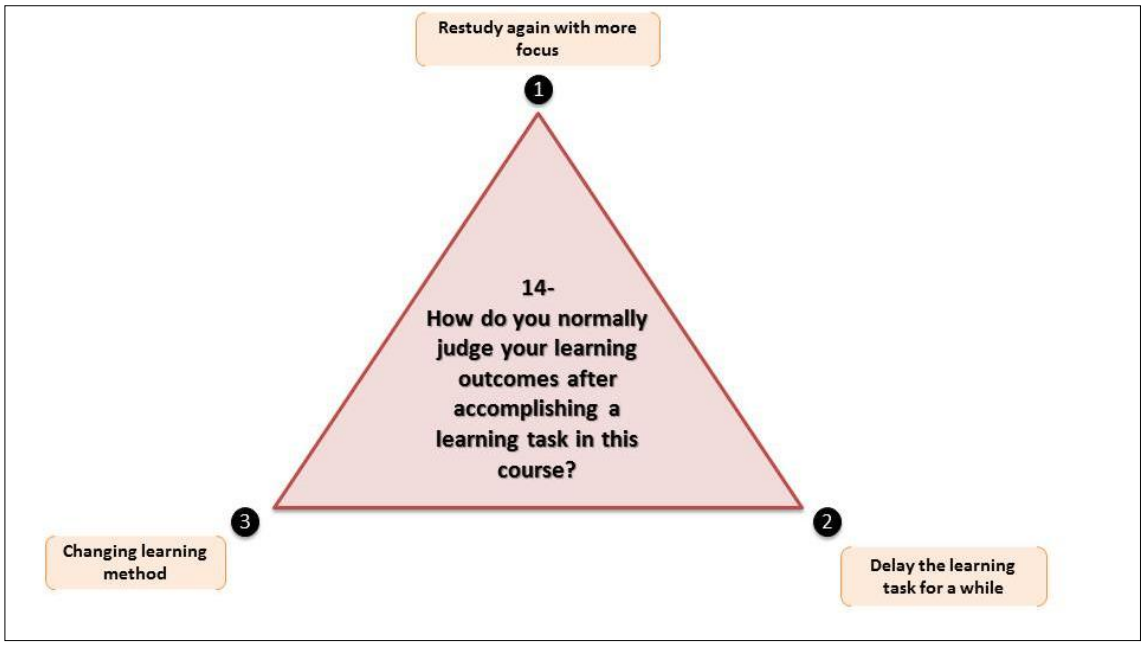

Figure 55: Merged themes of the regulation aspect

Main theme (14.1): Study again with more focus

Many students in the interviews replied that they used to study again, spending more effort on the learning material, if they did not learn what they should learn by the end of a learning session. PART-10 reported:

> I would try to find the points that I have missed…. the points that I did not understand… I would try to suggest to myself questions that could come in the exam…. One or two questions, as an example, but if I did not know the answers, then I would return to the book… then learn it by heart… I may repeat this once again, and if I managed to answer the question, this surely would eradicate that negative feeling.

PART-14 replied to the interview question by saying:

> I used to study it again… I study in the same way but with more concentration by going to a calm place, away from telephones, or closing the door… then you start to study.

Main theme (14.2): Delay the learning task for a while

One way of regulating performance effort among the learners on the course is the idea of delaying the learning task, to come back to it later, as indicated by a few participants. For example, PART-03 mentioned that:

> I would try to understand it again... or try to continue and concentrate on the rest of the learning materials and highlight the points that I did not learn... then get back to it later

Main theme (14.3): Changing learning method

Other students used to change their learning method when they did not learn what they should by the end of a learning session. This was expressed by a few participants. To illustrate, PART-15 reported that:

> I use to change my learning method… for example… I read… and read… Salam (i.e. the course subject)... but when I felt bored with reading… I took a piece of paper and wrote…. I benefited more... if not… I rested for a while then got back to the first method... or second method... whatever makes the student feel better….

The same idea was reported by PART-05 when he replied:

> for example when I'm bored of writing… I go back to the book and study from it

The following conclusions can be drawn from the qualitative study of the cognitive and metacognitive aspect of self-regulated learning. First, students on this blended learning course could use the strategy of highlighting key words when activating new information in their short-term memory. The learners applied this strategy in different ways such as marking new concepts, initially reciting them and writing them down. The students in the course store new information into their long-term memory (i.e. through the elaboration sub-aspect) via various possible strategies: connecting new information to previous information; summarising the main ideas; revising the information on a regular basis; teaching and discussing the information with others; visualising the information by drawing shapes and concept mapping; using a repetition technique; and paraphrasing the information in their own words.

Third, when organising the information from their studies they would probably use the following techniques: writing the most important information in their own style and outlining the learning materials in a way that makes it easy to be tackled; clustering facts to be learned then establishing connections between them; and labelling the information that they learn on the course. Fourth, the findings from the qualitative part of the study revealed little in regard to the critical thinking sub-aspect. For instance, two main themes emerged: first, referring to external resources such as books, colleagues,

the internet, family members and instructors when solving a learning problem; and second, solving a learning problem using their own resources, such as memorising difficult information or reading into its context in order to understand the whole.

Finally, with respect to metacognitive self-regulation abilities, the responses from the qualitative data varied with the different components of the metacognitive self-regulation sub-aspect (i.e. planning, monitoring and regulating). To illustrate, the qualitative findings show that most learners responded negatively to the planning component of the metacognitive self-regulation aspect. Such a conclusion can be drawn due to two main reasons: many participants responded to the interview item by expressing the idea of performing the learning task immidiately, without providing more indication in relation to planning, while a few other interviewees affirmed that they do not plan in order to accomplish their learning tasks, for several reasons illustrated previously.

For the monitoring component, most of the participants in the interview sessions reported indicators of their ability to monitor their learning performance, such as observing the duration of their learning sessions, their learning outcomes and their level of concentration during the learning session. The same conclusion may be drawn with respect to the regulating component. Most interviewees provided many indicators of their ability to regulate their cognitive activities such as studying again, quitting the learning task to come back to it later and changing their learning method. Further illustrations with comparison to the quantitative findings will be provided later in the discussion chapter.

4.2.3. The learning resource management for learners on a blended learning course at King Khalid University

This will be analysed from the following aspects: time management and study environment, effort regulation, peer learning and help seeking (Pintrich et al., 1991).

Unit analysis (3.1): Time management and study environment

In parallel with self-regulation and cognition, learners need to manage their time and study environment (Pintrich et al., 1991). The qualitative measure of this resource management aspect will be along two main dimensions: time management and study environment management.

a. Time management

Time management involves:

> scheduling, planning, and managing one's study time. This includes not only setting aside blocks of time to study, but the effective use of that study time, and setting realistic goals. Time management varies in level, from an evening of studying to weekly and monthly scheduling. (Pintrich et al., 1991, p. 25)

This aspect of self-regulated learning was investigated by the following interview question:

How do you normally manage your learning time in this course?

Most of the interviewees responded to this interview item by reporting various perceptions with regard to this unit of analysis. These may be divided into two main groups for the time management aspect: first, students who reported time management strategies, and second, students who stated that they do not have a specific study time for this course. More details about these two groups will be provided under the following sub-headings (see Figure 56).

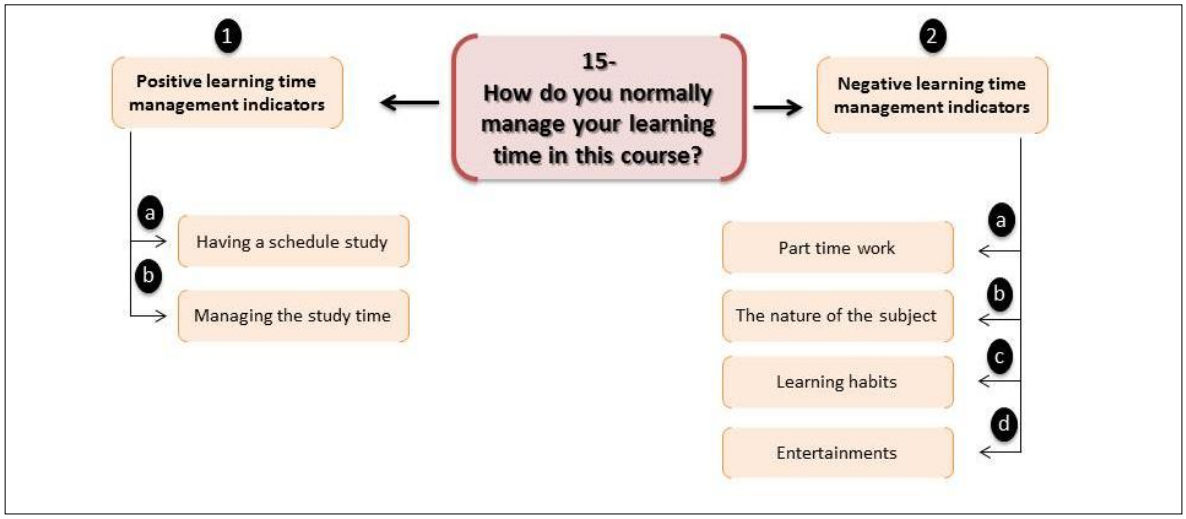

Figure 56: Merged themes of the time management aspect

Main theme (15.1): Positive learning time management indications

A few of the responses reflected indications about the aspect of learning time management, such as having a study schedule and the potential for using the scheduled time effectively.

- Sub-theme (15.1.a): Having a schedule for study

This is about students having a scheduled time for studying. Only a few reported that they have this, for example, PART-12 reported that he usually studies:

> Weekly... on Sunday... I revise (Salam 113) between the Asr prayer time and the Magreb prayer time (i.e. in the evening)... this day, because the next day I have the (Salam 113) subject

- Sub-theme (15.1.b): Managing the study time

This relates to the use of the time scheduled for studying. Not many students reported how they managed their learning time. The previous participant (PART-12) explained how he managed his study time by saying:

> I look at the lesson that I have attended… I try to understand it... remember what the instructor said… then write it down... then rewrite some of the most important information… then move to the next lesson... I have an overall look… after that… I log onto Blackboard in order to find out any important things that we have in Islamic Culture, either the assignment... or what is there on the module…

Main theme (15.2): Negative learning time management indicators

Many participants responded eagerly to the interview item on whether their only time for studying for the course was before the examination; apart from that they did not have a specific time for studying it. The reasons are illustrated by the following:

- Sub-theme (15.2.a): Part-time work

A few of the interviewees do not have a specific time for learning because they are engaged daily with part-time work. PART-17 explained his reason for not having a regular time for studying for this course:

> I work in a state agency in Jeddah... and the car sales business… also I am now engaged in local government … so I do not have time… I study only in the run up to exams… I usually study from 2 a.m. until the following day…

- Sub-theme (15.2.b): The nature of the subject

Another reason for not having a time to study for this course observed in the responses is the nature of the subject: whether it required more effort or not. This was expressed by a few participants and PART-13 answered the interview question by saying:

> No… no… maybe only at the time of the exam… because it is a subject... one would read and memorize it once... it is not that difficult and does not require so much effort… or attention to it… but if it's like other subjects such as organic chemistry… thermodynamics… it is difficult to compare those two subjects… there are differences… such as the difference in the learning material… this material (i.e. Salam113) is easily understood and memorized... while those subjects... you need to work your brain... read... write... search... it needs more effort

- Sub-theme (15.2.c): Learning habits

A few students reported that they did not specify a time for studying for the course because it is part of their learning habit. For illustration, PART-11 said:

> I study only at the time of exam… I am used to that… I think it is normal… I have studied like this since I was in primary and secondary school… I only study at the time of the exam…

- Sub-theme (15.2.d): Entertainment

Entertainment is one of the reported reasons for not having a time to study for this course and a few interviewees referred to this idea. For example, one of the responses to the question was:

> Frankly, I don't have a special time for studying for the course… only when the instructor tells us about the exam…

He referred to the reason, saying:

> our problem in organizing and planning our time is modern technology… such as Facebook, What's Up and Twitter… we find most people are involved in it… for example in the What's Up application… some groups are highly interactive and I have a chat with them… and most of our time is wasted like this… (PART-16)

The same idea was expressed by PART-15 when he said:

> I only open the book during the run up to exams… I do not want to study... I used to go for walks... watch matches... play football….

b. Study environment

Study environment management refers to 'the setting where the student does their class work. Ideally, the learner's study environment should be organised, quiet and relatively

free of visual and auditory distractions' (Pintrich et al., 1991, p. 25). This aspect was explored by the following interview question:

> **How do you normally manage your learning environment in this course?**

Most of the participants in the interview replied positively to this interview item by providing specifics about managing their learning environment. The following themes give these specifications (see Figure 57).

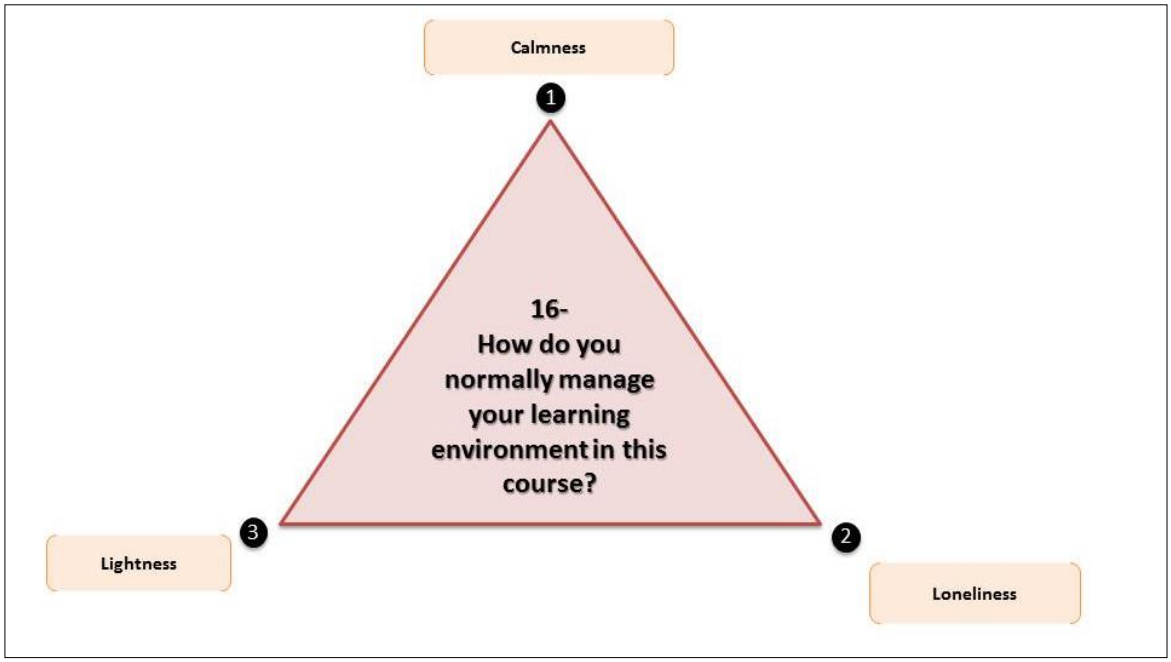

Figure 57: Merged themes of the study environment aspect

Theme (16.1): Calmness

Many students on the course preferred to study in a quiet and calm place and would manage the learning environment in such a way to provide them with this specification. For instance, PART-01 replied to the research question:

> I like quiet places... once I had my brothers at home… I couldn't concentrate… so I left home.... I went to one of my friends to study.

The same concept was affirmed by PART-14 when he said:

> I must study in a quiet place… because with my friends… we would talk about something and the others would be watching TV, so this caused disruption for me….

He then replied to a question about what would he do if he did not find such an environment:

> If so… I would get out and drive in my car… every Thursday I take my books back with me to my village and I study there

Finally, PART-17 shared the same perspective when he said:

> The most important thing is that there is no disturbance…

Theme (16.2): Loneliness

Some on the course prefer to study alone, as may be observed from the response of PART-16, who said:

> I have a private room for study… some prefer to go outside to study but I prefer to study alone... I don't like to be disturbed… I don't want someone to be beside me because I would raise my voice....

PART-11 shared the same thought and stated:

> If there is someone with me... I would talk to him… I would be distracted from studying… so it is better for me to be alone

Theme (16.3): Lighting

The level of light is one of the specifications for an learning environment mentioned by some participants during their interview. A few participants referred to this idea. For illustration, PART-17 specified that:

> The other thing is having good lighting….

The same concept was confirmed by one of his colleagues, who replied to the interview question:

> Sure: calm…. lighting … for example, with white light, I felt a bit gloomy so I changed the lighting... (PART-09)

Unit analysis (3.2): Effort regulation

Self-regulation also includes students' ability to control their effort and attention in the face of distraction and uninteresting tasks. Effort management is self-management and reflects a commitment to completing one's study goals, even when there are difficulties

or distractions (Pintrich et al., 1991, p. 27). The following interview question examined this aspect:

> **What do you do normally when you encounter distractions and uninteresting learning tasks in this course?**

Most of the interviewees responded positively to this interview item by reporting various strategies that they applied when they encountered distractions and uninteresting learning tasks. The themes extracted from the responses will be introduced under the following sub-titles (see Figure 58).

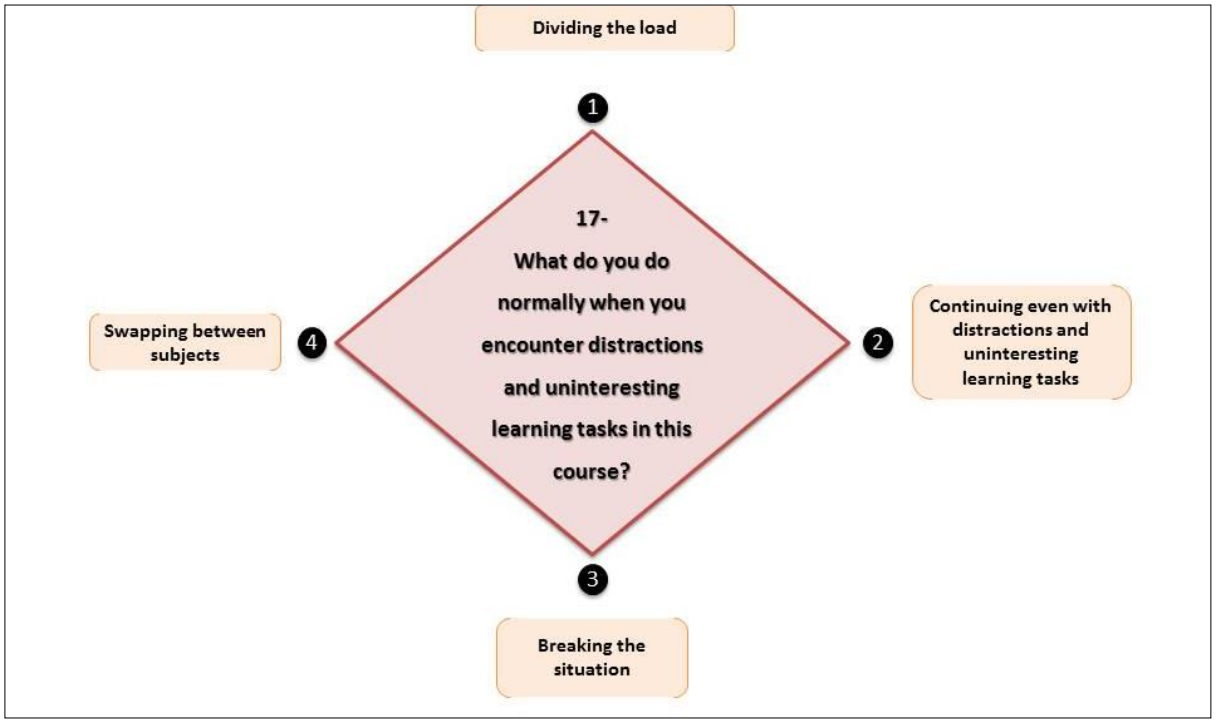

Figure 58: Merged themes of the effort regulation aspect

Theme (17.1): Dividing the load of the learning tasks

A few students in the interviews divided up the learning load when they encountered distractions and uninteresting learning tasks. For instance, PART-01 replied by saying:

> If I divide it into parts and days it will be easy…. Sure.

This was clearly confirmed by PART-17, who said:

> I don't give distraction or boredom a chance… I study for an hour then take a break for fifteen minutes… then I go back to study… I make something such as a drink… walking around the house... opening the refrigerator... talking... calling a friend… then I get back to the subject... no boredom, no distraction....

Theme (17.2): Continuing even with distractions and uninteresting learning tasks

When they encountered distractions and uninteresting learning tasks, others preferred to keep going without change until the end of their study session, as reported by a few participants. For example, PART-01 replied to the interview question by saying:

> I would continue…. I swear I would continue… I don't stop and go then come back… because if I cut then I don't care, later on… and I will have a distracted mind… I benefited from that…I achieved a high grade.

PART-10 emphasised the same thing, but mentioned the fear of the examination as his reason for such behaviour:

> I don't give up… study is most important because of the test… boredom is going to be overcome because of fear…. I shall do my best to overcome distractions…because fear is present… I'm afraid of the exam… really afraid…

Theme (17.3): Breaking up the distracted and uninterested situation

One of the obvious themes is breaking up the situation when students encounter distraction and uninteresting learning tasks. Many interviewees referred to this idea. As PART-10 replied to the interview item:

> Oh… I would practice one of my hobbies… if I had time to do so…. Such as football and walking….

PART-17 shared the same idea and said:

> There is only one thing to do... leave the study... talk on the mobile... watch TV... watch a video... laugh for a while... then get back... I then understand more information... easily.

Finally, PART-13 confirmed that:

> If I feel bored... but not during weekdays... I would travel somewhere else then come back... not long-distance travel… for example I would go to a place by the sea... like Jazan (i.e. a city in Saudi Arabia)... then come back…

Theme (17.4): Swapping between subjects

A few participants reported the idea of swapping between subjects when they encountered distraction and uninteresting learning tasks. For instance, PART-04 stated that:

> In fact, some topics make you bored… I felt like that the day before the test…. I tried to summarize the important points…. I continued, and changed the topic, then I returned to it…. I just change the topic, and then I return to the boring one…

Unit analysis (3.3): Peer learning

The peer learning aspect is about collaborating with one's peers, which: 'has been found to have positive effects on achievement. Dialogue with peers can help a learner clarify course material and reach insights they may not have attained on their own' (Pintrich et al., 1991, p. 28). The following interview question was used to explore this aspect:

> **How do you usually collaborate with your peers in this course?**

Most of the participants responded to this units of analysis and these can be grouped into two categories: responses that do not reflect peer learning practices and responses that do. The following sub-titles illustrate these (see Figure 59).

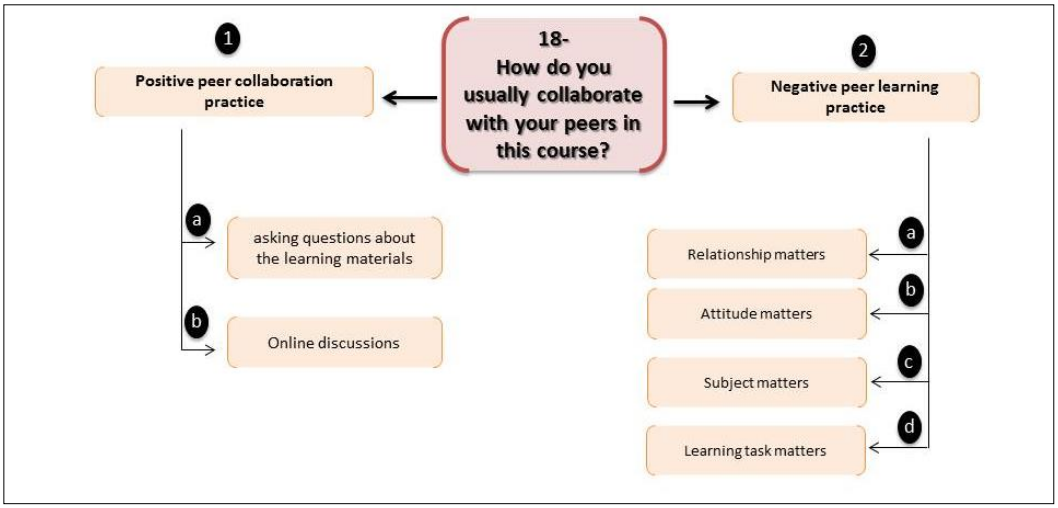

Figure 59: Merged themes of the peer learning aspect

Theme (18.1): Positive peer collaboration practice

A few students confirmed that they collaborated with peers on this course; this was reported in different forms. The following themes illustrate these.

- Sub-theme (18.1.a): Asking questions about the learning materials

One of the forms that students on the course use when collaborating with their peers is asking questions about the learning materials. A few interviewees referred to this idea. For example, PART-20 answered the interview question by saying:

> Some points that I could not understand... I would ask one of my colleagues who has a good understanding of it... I would call him or meet him...

PART-10 reported the procedures that he follows when collaborating with peers:

> At the beginning, each of us studies on his own…then we gather together… start addressing the topic…everyone poses a question about the material … for example, give us a definition… and the others are supposed to answer the definition…

- Sub-theme (18.1.b): Online discussions

The other reported practice of peer learning is collaboration through online discussions. This was expressed by a few participants. As one of the interviewees reported:

> I do collaborate with my friends when studying for this subject… for example, discussions... where the instructor uploads an idea to the online forum... each of the learners expresses his opinion about the subject… (PART-07)

Theme (18.2): Negative peer learning experience

This group of responses shows that many participants do not collaborate with their peers, and the reasons will be introduced through the following sub-themes.

- Sub-theme (18.2.a): Relationship matters

One of the reasons for not collaborating with peers among some of the students on the course is that they have no relationship with the other students. A few students indicated this idea. As PART-11 said:

> No, I do not cooperate with my colleagues in studying for this material … because I do not know any of them… I know nobody….

PART-08 expressed the same idea:

> I ‘don`t’ have any relationship with other students… I ‘don’t’ know them….

- Sub-theme (18.2.b): Attitude matters

Other students reported that they do not collaborate with their peers because they have negative attitudes toward such aspects. This was reported by some participants, for example by PART-11, who replied to the interview item:

> No I did not collaborate with my peers... I never did it…I feel that I do not study with them right… I feel like they would give me different information to that in the book….

PART-15 mentioned the same reason:

> I prefer to study alone... if I want to ask about something… I just greet him and ask for what I want but it is impossible to study together as he would disrupt me, so I prefer to study alone… I am convinced that if I study alone, I will benefit and be able to accomplish more....

He then gave an example from his previous experience:

> once in the afternoon... I asked two of my friends to come in the morning to have breakfast then and study together... we started to study at 9 o'clock and went on until 12 o'clock… I discovered that I learned nothing… (PART-15)

- Sub-theme (18.2.c): Subject matters

Some students did not collaborate with their peers on this course because they believed that they could learn the materials without collaboration. For instance, PART-13 responded to the interview question by saying:

> In this subject... no I do not collaborate with my peers… because I can study it by myself… it depends on the type of the subject… in this subject I don't need to study with other people….

PART-02 shared the same concept in which he said:

> For this course I do not collaborate with others… because it has no questions that require collaboration... it is only to be memorized...

- Sub-theme (18.2.d): Learning task matters

The design of the learning task is one of the reasons for not collaborating with peers on the course. A few participants reported such a concept. As one of the students on the course replied:

> We were not forced… we were not forced to work as a team work… if we were assigned teamwork... it would be possible. (PART-03)

Unit analysis (3.4): Seeking help

Seeking help is another aspect of resource management ability that includes the students' knowing when they do not know something and are able to identify someone

to provide them with some assistance (Pintrich et al., 1991, p. 29). This aspect was explored via the following interview question:

> **What normally do you do when you face any difficulties in your study for this course?**

Most of the participants replied positively to this interview question by indicating various categories of people from whom students on the course seek help. The following illustrates these (see Figure 60).

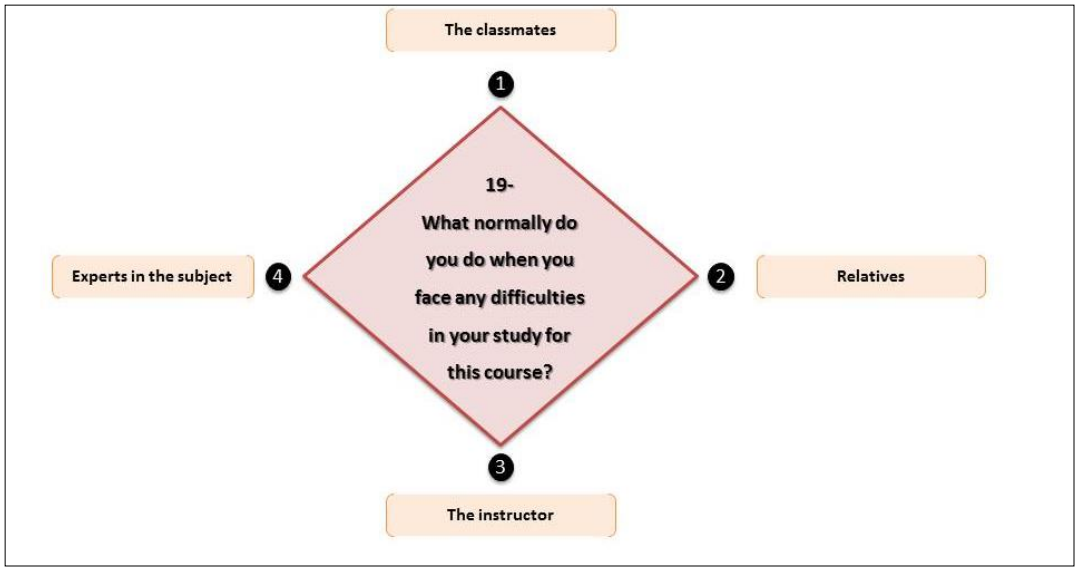

Figure 60: Merged themes of the help-seeking aspect

Theme (19.1): Classmates

When they encounter difficulties with the course, some students seek help from their classmates. As one stated:

> Yes, I faced a difficulty on the course and I asked for help from one of my colleagues… I rarely get back to the instructor… I don't ask any students…. I see that some of them are irresponsible... in fact I do not think that they are better than me... I only ask for help from that student particularly… we communicate through the What's App application... if necessary (PART-06)

Theme (19.2): Relatives

Relatives are among those from whom students on the course seek help if they have difficulties with the course, and a few participants reported this idea. For example, PART-10 replied to the question saying:

> I may ask advice from my father… I used to consult him regarding my assignments… I mean, what was his opinion….. he is an expert in that subject.

PART-13 had the same experience and gave an example from his experience:

> I did not know the question... I did not understand it... and its technique… I searched online... but I did not understand, so I called my brother and he helped me with a way to answer the inquiry... then I answered the question…

Theme (19.3): Instructor

One of the reported categories is seeking help from the instructor, as mentioned by a few interviewees. For illustration, one interviewee said:

> If I face something during my reading… that I think is important and may come up in the exam…. if I don't understand it, I would e-mail the instructor certainly…. for example, we sent him an e-mail about one of the study units and asked him about whether it would be included in the exam or not… and about other things like that... (PART-04)

He emphasised this idea by saying:

> So the first will be the instructor.... While studying, if I face difficult information, I will quickly send him a message... I have his phone number and office number.... It's easy.

Theme (19.4): Experts in the subject

Another group of whom some of the students on the course use to seek help from when they face difficulties with the course are experts in the area of the learning subject. This idea was indicated by a few participants. For example, PART-16 reported that:

> I know a specialist in the Islamic Studies in my local city… sometime I go to his home and consult him…

The following conclusions may be suggested with regard to the qualitative study of the resource learning management aspect of self-regulated learning. First, many participants affirmed that they had no regular time for studying for this course, apart from before the examination. They referred to several reasons, such as: being engaged with part-time work on a daily basis; the nature of the subject not requiring much planning effort; their learning habits; and being heavily occupied with leisure pursuits. With respect to

managing their environment, most preferred to study in a place that helped them to focus on the learning materials, and they studied in a regular place.

Moreover, in relation to the effort regulation sub-aspects, the outcomes from the qualitative results affirm the commitment of the participants to accomplishing their learning goals in studying for this course, even if they encountered difficulties and distractions. Furthermore, there was clear evidence that the interviewees who did not collaborate much with peers number more than those who did. This conclusion was interpreted qualitatively as having more than one possible reason: no relationship with the other students; negative attitudes toward such aspects; a belief that they could learn the material without collaboration; and the design of the learning task. Finally, unlike peer collaboration, most students on the course affirmed that they asked for help from others when facing difficulties in their studies in different ways. This included seeking help from classmates, relatives, the instructor and experts in the subject. Further explanations, with a comparison to the quantitative findings, will be provided in the discussion chapte.

Chapter 5: Discussion

This study is to explore in depth the way in which male students at King Khalid University regulate their learning on a blended learning course. This will be achieved by addressing the following research main question:

> **How do male learners at King Khalid University regulate their own learning in a blended learning environment?**

The outcomes from both the quantitative and the qualitative aspects will be discussed in the light of the following research sub-questions:

> ***Sub-Q1:*** **Which aspects of self-regulated learning are more apparent on a blended learning course?**
>
> ***Sub-Q2:*** **How do male learners at King Khalid University motivate themselves on a blended learning course?**
>
> ***Sub-Q3:*** **How do male learners at King Khalid University use their cognitive and metacognitive abilities on a blended learning course?**
>
> ***Sub-Q4:*** **How do male learners at King Khalid University manage their learning resources on a blended learning course?**

The presentation of the discussion will be in the following sequence: first, I will attempt to explain the meaning of the findings. Second, I will relate the findings to those of similar studies. Third, I will consider alternative explanations of the findings, if there are any, acknowledging the study's limitations as much as possible and suggesting any further research. Fourth, I will draw the conclusion from the results.

Finally, I will discuss the findings of the study by comparing and contrasting the quantitative and the qualitative results based on three main possibilities: a) Do they confirm each other? The results are confirmed when they reflect the same perspectives or aspects; b) Do they conflict with each other? The results are conflicted when they reflect the opposite perspectives or aspects; c) Do they complement each other? The results are complemented when they reflect additional perspectives or aspects (Hess, 2004; Ng & Peh, 2009).

5.1 Motivational Aspects of the Study

The motivational aspect was explored in this study quantitatively and qualitatively via the first and second research sub-questions:

> ***Sub-Q1:*** **Which aspects of self-regulated learning are more apparent on a blended learning course? (motivational section of MSLQ)**
>
> **Sub-Q2: How do male learners at King Khalid University motivate themselves on a blended learning course?**

The reflection on the results from the quantitative and qualitative data will be illustrated by the following sub-titles.

5.1.1 Goal orientation

Self-regulated learning perceives learners as proactive in their learning behaviour or strategies to achieve self-set goals (Cleary & Zimmerman, 2004). Accordingly, goal orientation has become an essential motivational construct in organisational research, providing clarification for learners' approaches and responses to and reasons for engagement in achievement activities (Ames, 1992). Goal orientation refers to 'the student's perception of the reasons why she is engaging in a learning task' (Pintrich et al., 1991, p. 9). Such self-regulated elements can be intrinsically or extrinsically affected by students' goal orientation (Chyung, Moll, & Berg, 2010; Pintrich et al., 1991). Intrinsic goal orientation is primarily for internal reasons such as being curious, desire for challenge and wanting to master the content. Extrinsic goal orientation is primarily for external reasons such as obtaining good grades, competing with others and seeking approval or rewards (Chyung et al., 2010; Pintrich et al., 1991).

This motivational aspect was explored in this study both quantitatively and qualitatively. Quantitatively, the overall average score for the participants on the extrinsic goal orientation scale is M=5.87, SD=1.702, which is relatively high (Pintrich et al., 1991), scoring an average of M=4.89, SD=1.849 on the intrinsic goal orientation scale, classified as a relatively high score (Pintrich et al., 1991). Nevertheless, some individuals' scores varied from the collective, reflected by the standard deviation of the scores on both scales. Reflecting on these findings, a number of comments can be made. First, such scores for intrinsic and extrinsic goal orientation could be a sign that learners

on this course have a reasonable level of goal orientation, extrinsically and intrinsically, yet not very high on the seven-point Likert scale. Second, participants scored higher on extrinsic than intrinsic goal orientation, especially on items Q7: 'Getting a good grade in this class' and Q13: 'Achieving better grades in this class than most of the other students'. This observation was confirmed qualitatively as most expressed that the idea of raising their overall average was among the most notable reasons for their engaging with the learning tasks on this blended learning course.

A possible reason for the emergence of this extrinsic goal orientation among participants is the central role of grading in their previous educational assessment history. To illustrate, the traditional approach to Saudi Arabian assessment is through marks and grades, rather than on the actual process of learning; it links the curriculum to assessment. Students in higher education in Saudi Arabia come from a secondary school learning context that relies heavily on examinations as the main method of assessment (Al-Sadan, 2000). Another possible reason could be that participants are affected by the principles of behavioural theory and perceive themselves to be participating in a task for 'external' reasons, such as grades, underpinning assessment practice in higher education in Saudi Arabia (Darandari & Murphy, 2013).

It was only recently that the Ministry of Higher Education in Saudi Arabia realised these challenges (Darandari & Murphy, 2013). The NCAAA is now making a huge effort to shift assessment practice in higher education from the principles of behavioural theory to the constructivist theories of learning and cognitive developmental processes, a shift that requires moving toward higher-order thinking processes (Darandari & Murphy, 2013). Indeed, based on the finding of this motivational aspect of self-regulated learning in this study, it could be suggested that such efforts made by NCAAA need to be continued.

5.1.2 Task value

Task value is not like goal orientation. It refers to the students' perception of the level of interest, importance and usefulness of the task (Pintrich et al., 1991). On the MSLQ, 'task value refers to students' perceptions of the course material in terms of interest, importance, and utility' (Pintrich et al., 1991, p. 11).

The participants in this study showed positive motivational indications toward the learning tasks in the course both quantitatively and qualitatively. From the quantitative aspect, items on the task value scale scored what could be considered a high average (M=5.44, SD=1.645) (Pintrich et al., 1991). However, the individual responses are spread within near to 2 points from the mean. This could as well imply that some responses are below and above the actual mean by 1.645 standard points. Furthermore, the data reflect a positive value of the learning materials and the subject matter. For illustration, most of the task value items on the questionnaire scored higher than the average of (M=5.44, SD=1.645) (i.e. Q10 (M=5.74, SD=1.550), Q23 (M=5.90, SD=1.510), Q26 (M=5.64, SD=1.597) and Q27 (M=5.78, SD=1.591). This could be a sign that the importance of learning the course material in this class (Q10), the usefulness of the course material (Q23), liking the subject matter of the course (Q26) and understanding the subject matter of this course (Q27) could be the most apparent task value items among the participants on the course.

This finding was complemented by qualitative results in which most of the interviewees expressed positive thoughts about the learning tasks. For example, the students evaluated positively the learning tasks from various perspectives. This included tasks associated with important aspects of contemporary life, which helped to improve their learning skills, encouraged them to be independent in their learning and provided a space for the learner's voice.

Various studies confirm that the design of the learning content should make it relevant to real life to improve students' motivation (Frey & Fisher, 2010; Williams & Williams, 2011). Second, participants perceived the learning tasks of the course as helping them to improve their learning and independence skills. This finding is consistent with the idea that instruction models supporting autonomous learning skills may be beneficial in raising student motivation and performance in learning (Okazaki, 2011).

The third positive indication about the learning tasks on the course was about respecting the learner's voice. Indeed, this result is affirmed by other studies that report that the more choice and control that learners are given, the more motivated and engaged they are likely to be (Toshalis & Nakkula, 2012). This finding is especially important in the context of the Saudi educational system. For instance, it has been suggested that major 'weaknesses in curriculum provision in Saudi education are that the decision-making is

not informed by contact with current daily activities or practices in schools, and the lack of participation of teachers, principals, parents and students' (Al-Sadan, 2000, p. 147). This could be one of the reasons for Saudi Arabia receiving international criticism over the years about the quality of its education system, with major concern directed at many aspects of the educational systems such as the nature of its pedagogy (Smith & Abouammoh, 2013). Therefore, it is emphasised that, in order to achieve reform in this regard, instructors should be active participants in the process rather than passive, as in Saudi schools (Al-Sadan, 2000). The outcome of this study would suggest the essential role of the learners in this process of reform.

Finally, appreciation of stimulating their thinking abilities on the blended learning course was another positive indication toward the learning tasks. Research has reported on the relationship between the thinking stimulation and the level of motivation. For instance, it suggests that difficult or stimulating tasks, mainly those stressing higher-order thinking skills, may be more motivating than easy tasks that can be resolved through rote application of a predetermined algorithm (Turner, 1995). Therefore, motivation seems to be a supportive requirement for critical thinking: unmotivated learners are unlikely to show critical thoughts (Lai, 2011).

Although the previous quantitative and qualitative results represent positive complementing of each other, the qualitative findings show a further negative evaluation of the learning tasks on the course raised by a minority of participants such as: having a negative attitude toward the idea of learning tasks, and having a negative attitude toward tasks posted via Blackboard. A similar finding was reported by Knowles and Kerkman (2007), in which responses from participants were negative and showed that they did not find it easier to review information online. It confirmed that the students in their study missed interaction with other students and experienced stress (Knowles & Kerkman, 2007). However, that was not the conclusion made by other studies conducted in Saudi Arabia such as Alebaikan (2010), Almalki (2011) and Alqahtani (2010) in which there was an overall positive attitude to blended learning approach among both students and instructors. Passey et al. (2004) also suggest that there are positive motivational outcomes, particularly when ICT is used to support engagement, research, writing and editing, and presentation of work. I would suggest that giving that statement was made by only one participant; it does not necessarily reflect the perceptions for the rest of the participants.

5.1.3 Control of learning belief

Control of learning beliefs is about ‘students’ beliefs that their efforts to learn will result in positive outcomes. It concerns the belief that outcomes are contingent on one’s own effort, in contrast to external factors, such as the teacher’ (Pintrich et al., 1991, p. 12).

It may be seen from the quantitative results that the control of learning beliefs scale scored M=5.51, SD=1.637, considered a high score (Pintrich et al., 1991). The individual responses are spread around one point from the mean. This could well imply that some responses are below and above the actual mean by approximately 1.6 points. Moreover, participants in the quantitative part of the study rated two items of the control of learning belief scale higher than average, namely that they believed that they would learn and understand the learning materials if they studied in the proper way (Q2), and if they spent the effort needed (Q8). Only two items (Q2 and Q18) scored higher than the average of M=5.51, SD=1.63; M=6.04, SD=1.47 and M=6.02, SD=1.405, respectively. Participants on the qualitative part of the study reported both positive and negative responses in relation to their control of learning beliefs. However, the number of participants who reported negative indicators to this motivational aspect exceeded those who reported positives.

To illustrate this, the first category is about responses that reflect a positive relationship between quantitative and the qualitative results and responses shows a number of positive indicators about their control of learning belief. This includes: a) the ability of managing conflicting learning tasks on different modules in order to concentrate most on one; b) the ability of choosing learning style that suited both them and the subject; c) the effort made by participants to prepare for a learning tasks or examinations, and; d) following the instructor during the lecture.

On the other side, the negative qualitative results are the responses that reflect negative effort made by the participants on the course that they believe it could affects their learning outcomes. This includes the following findings: a) the absence during the course; b) the displacement activity such as playing with their mobile telephones during lectures; c) the hurry in which they perform a learning task or an examination; d) forgetting information that they had already learned; and e) not studying constantly.

Most participants showed a relatively high level of control learning beliefs quantitatively. They believed that if they studied in an appropriate way and expended the necessary effort, they would learn and understand the learning materials. Although the students' actions reported in the qualitative results were not completely compatible with the quantitative results, the participants were conscious of a relationship between their learning consequences (whether good or bad) and the effort that they had put into the course. Many studies confirm a causal relationship between learners' effort and their learning outcomes, such as (Artelt, Baumert, Julius-McElvany, & Peschar, 2003; Dunlosky, Rawson, Marsh, Nathan, & Willingham, 2013; Fisher & Ford, 1998).

Many factors that could possibly affect this motivational aspect, whether positively or negatively, were revealed by the qualitative part of this study. However, due to the exploratory nature of this research, both a confirmatory and a correlation study would be needed to establish the main factors behind the contradiction between the learners' beliefs regarding what is important for them to learn and how they actually perform in a blended learning environment in Saudi Arabia.

5.1.4 Self-efficacy for learning

This motivational sub-aspect includes expectancy for success and self-efficacy. The expectancy for success is about the performance expectations, and relates directly to task performance. Self-efficacy is a self-evaluation of one's ability to master a task (Pintrich et al., 1991).

It could be that the participants were quantitatively more positive in their expectations about their learning outcomes from the course, as well as about their ability to master the learning tasks relating mainly to assignments and tests on that course. Participants on the course scored what could be a high overall average of M=5.49, SD=1.518 on the self-efficacy of learning and performance scale (Pintrich et al., 1991). However, some individuals varied from the collective score, as reflected by the standard deviation of the score. In addition, Most of the items on the scale of self-efficacy for learning and performance scored above average (M=5.49, SD=1.518), namely, Q5 (M=6.18, SD=1.253), Q12 (M=5.95, SD=1.392), Q20 (M=5.73, SD=1.523) and Q21 (M=6.06, SD=1.251). This may show that the participants on the course share the following expectations: a) receiving an excellent grade in that class (Q5), b) learning the basic concepts taught in that course (Q12), c) doing an excellent job on the assignments and

tests in that course (Q20) and d) doing will in that class (Q21). These findings could suggest that the participants on the course are positive about both the learning outcomes from the course (i.e. excellent grads and learning the basic concepts of the course) and the ability to master the learning tasks that relate mainly to the assignments and the tests in that course.

The qualitative aspect of the study shows both confirmed and unconfirmed findings. For instance, on the expectancy for success side, some of the learners expected high grades and others did not. Each group had its own reasons for these expectations. On the one hand, a number of the students on the course expected to achieve a distinction mark. This level of expectation was based on more than one reason. For instance, some students stated that they expect to achieve a distinction because the subject is easy. Other interviewees who expected to achieve a distinction referred to the idea of caring about the subject. Fulfilling the requirements for a distinction is another reason for such expectation. Finally, other students were confident of achieving a distinction because they have done so previously in similar subjects.

On the other hand, other responses reflected quite different levels of expectation; some did not expect to achieve a distinction at the end. This is for different reasons. This includes: the absence from lessons, the dislike of the idea of online learning, the pressure caused by studying many subjects at the same time and the less confidence among learners about their ability to achieve such level.

The same observation may be suggested for the aspect of self-efficacy from the qualitative perspective, where participants appraised their ability to master a learning task positively and negatively in different ways. The positive responses from the interviewees reflect their ability to master a task. This includes the idea of undertaking learning tasks without delay as an indicator of ability to master the task.

Conversely, negative self-appraisal is about negative responses from the interviews indicating issues relating to their ability to master a learning task. One of the negative issues reported is having a problem in understanding lessons that were not attended. Other students on the course reported that they had problems in relation to their ability to conduct a research task.

The researcher argues, based on both the quantitative and qualitative results, that the participants on this blended learning course may have reasonable self-efficacy in learning and performance beliefs. However, several issues could decrease their level of this motivational component and learning outcomes. These include: a) the level of discipline in attending the face-to-face learning class (see also (K. J. Hancock, Shepherd, Lawrence, & Zubrick, 2013; Malcolm, Wilson, Davidson, & Kirk, 2003); b) the level of readiness for mastering online learning by having the necessary skills (see also Passey, Rogers, Machell, & McHugh, 2004); c) the pressure of having multiple learning tasks at the same time (see also DeCaro, Thomas, Albert, & Beilock, 2011; Kahneman, 1973), and; d) their level of self-esteem (see also James & Nightingale, 2005). Further confirmatory and correlation investigation, on a larger scale, is needed to understand the frequency and effect of such issues among learners in a blended learning environment in Saudi Arabia.

5.1.5 Test anxiety

Test anxiety is considered as a negative factor that affects both anticipated and actual performance (Pintrich et al., 1991). It consists of worry, a cognitive component and an emotional component. The former is about the learner having negative thoughts that detract from performance, while the latter refers to affective and physiological arousal aspects of anxiety (Pintrich et al., 1991). Unlike other scales, when the item on the anxiety scale scores highly it means this sub-aspect is more worrying (Pintrich et al., 1991).

Participants on this blended learning course had high scores on the test anxiety scale; this may be a sign for having issues. The quantitative aspect of this study shows interesting results. First, the overall average of this scale could be at a disturbing level (i.e. M=4.58, SD=2.035), according to (Pintrich et al., 1991). Nevertheless, the individual responses are spread 2 points away from the mean. This could indicate that some responses are below and above the actual mean by 2.035 standard points. Moreover, four out of five items on the scale scored above average (i.e. Q8 (M=4.96, SD=1.962), Q19 (M=4.73, SD=2.009), Q14 (M=4.62, SD=2.044) and Q28 (M=4.67, SD=2.099). This reflects overall concern among participants on that course with regard to test anxiety, specifically on the following items:

a) Q8: thinking about items on other parts of the test that they cannot answer during the test,

b) Q19: thinking of the consequences of failing during the test,
c) Q14: having an uneasy, upset feeling when taking an examination, and
d) Q28: feeling that the heart is beating fast when taking an examination.

These quantitative findings suggest that the participants on this blended learning course could have issues with test anxiety in both the worry and the emotional component.

The outcomes from the qualitative aspect of this study show both worried and unworried feelings when undertaking a test on this course. On the one hand, some of the students on the course reported that they feel worried on this course before or during a test for several reasons. Some are worried beforehand because they are thinking about the difficulty of the examination. Other students in the study worry before the examination as a motivational strategy to attain high marks. Being habitually worried before any examination is another reason reported. Another cause for being worried before the examination is low confidence among the students on the course about their preparation. Another type of the participants on the course felt worried beforehand because they had more than one examination on that day. Finally, during the examination, interviewee on the course affirmed that they felt worried when they identified a question in the test that they did not recognise.

On the other hand, some participants confirmed that they were not worried, either before or during a test, for the following reason – the level of preparation for the test. In addition, the level of difficulty of the subject is another factor for not being worried before the examination. Other students in the study were not worried before the examination because they were confident that they would achieve a good grade. Another reported factor for not being worried is the idea of having things in the test that were studied and answerable.

With respect to the emotional component of the test anxiety, three types of feelings caused by test anxiety were identified among the participants: being anxious, being stressed and being tensioned.

So, it could be suggested that some of the qualitative outcomes confirmed and complemented the quantitative results by demonstrating the reasons for such negative feelings, as illustrated previously. Other data from the qualitative side of this study conflict with the quantitative findings, in which a number of students on the course

claimed that they do not have worrying feelings when sitting a test for that course. This could be because these unworried interviewees are among those on the course without such issues. The qualitative results also show factors that support these unworried individuals in having such a positive feeling such as: being well prepared; the level of difficulty of the subject; confidence in achieving a good grade and the questions being answerable.

I would argue that the source of test anxiety among the participants relates to both the test situation and the test taker (Asghari, Kadir, Elias, & Baba, 2012; Bonaccio & Reeve, 2010). The test situation includes previous experience of tests, which has a significant effect on students' perceptions such as the familiarity with the test subject, the test's difficulty and finally the test scores (Asghari et al., 2012). The test taker is about the way the test taker perceives his or her ability to pass the standards of the test (Asghari et al., 2012; Bonaccio & Reeve, 2010), for example, the feeling of whether they are sufficiently ready for the test and perceptions of both low self-efficacy and incompetence (Asghari et al., 2012; Trifoni & Shahini, 2011).

Since this study is designed to explore test anxiety only as part of the overall motivational aspect of self-regulated learning among the participants on a blended learning course in one of the Saudi universities, it would be recommended to investigate further based on a larger scale, the population of the learners who are having such a negative motivational perspective in blended learning courses in Saudi Arabia universities. As well as investigating its effects on the overall learning achievements, in addition, because this study was limited to male students, it is recommended that further investigations be conducted to investigate whether there are such issues among female students on blended learning environments in Saudi Arabia. The summary of the outcomes from the motivational aspect will be provided later in the conclusion chapter.

5.2 Cognitive and Metacognitive Aspects of the Study

The cognitive and the metacognitive aspect of self-regulated learning is about what learners know about their own learning (Henderson, 1986). It considers a learner as a person who plans, organises, self-instructs, self-monitors and self-evaluates at various stages during the learning process (Zimmerman, 1986). This aspect includes students using basic and complex strategies when processing information from texts and lectures

(Duncan & McKeachie, 2005). Additionally, metacognitive control strategies are measured on a single large sub-scale on the MSLQ relating to the use of strategies that help students control and regulate their own cognition. This includes planning (setting goals), monitoring (of one's comprehension), and regulating (e.g. adjusting reading speed depending on the task) (Duncan & McKeachie, 2005).

The cognitive and the metacognitive aspect in this study were explored quantitatively and qualitatively via the first and third research sub-questions:

> ***Sub-Q1:*** **Which aspects of self-regulated learning are more apparent on a blended learning course? (the cognitive and metacognitive section of MSLQ)**
>
> ***Sub-Q3:*** **How do male learners at King Khalid University use their cognitive and metacognitive abilities on a blended learning course?**

The reflection on the results of this aspect through the quantitative and qualitative data can be explained from the following sub-titles.

5.2.1 Rehearsal

Rehearsal is a component of the cognitive and metacognitive aspect of self-regulated learning (Pintrich et al., 1991). It is mainly used by a learner to activate information in the working memory rather than storing it in the long-term memory, and this strategy include techniques such as reciting or naming items from a list to be learned (Pintrich et al., 1991, p. 19). This learning strategy consists of four items on the MSLQ questionnaire (Pintrich et al., 1991).

The combined quantitative and qualitative results show that participants on this blended learning course activate new information in their short-term memory by focusing on key words and concepts. Although participants at this rehearsal scale achieved what would be seen as an average relatively high score of M=4.35, SD=2.011 (Pintrich et al., 1991), the individual responses are spread more than 2 points away from the mean. This could show that some responses are under and above the actual mean by 2.011 standard points. Furthermore, the quantitative aspect of this study showed two main findings: first, only Q59: 'I memorize key words to remind me of important concepts in this

class' scored above the average. This may show that participants are most likely to concentrate on new concepts by memorising key words.

Qualitatively, most of the participants responded positively to this interview item by providing different strategies for learning new concepts on this course. Although the qualitative results did not indicate, in particular, the idea of memorising key words as a strategy to remind the learners of important concepts in this class, they confirm the idea of concentrating on key words and concepts in different ways. Other participants used a pen to highlight the new concept to make it notable for them in a second study stage; this was mentioned by interviewees in different forms. Another technique mentioned when activating new concepts in the short-term memory is initially reciting the new concept. Other students on the course used to write down the new concept in a way that helps them to focus on it at the second studying phase. Unlike the quantitative outcomes, the results from the qualitative study indicated the idea of repeating the new concept over and over as a way to activate new information in the short-term memory.

Naveh-Benjamin and Jonides (1984) suggested that there are two main functions for rehearsal: 'to keep information in a temporarily active state during short-term tasks and to create memory traces with some permanence' (p. 494). The latter function is termed 'elaborative' rehearsal and includes strategies such as chunking, forming images, or recoding material in various ways (Naveh-Benjamin & Jonides, 1984), and it will be discussed further in the following section.

I would suggest that the appearance of this cognitive aspect among the participants in this study, quantitative and qualitative, is to be expected due to the popularity of traditional learning methods in Saudi Arabia, such as memorising information to be retrieved to achieve success in examinations (Al Dawood, 2007 cited in Alnassar & Dow, 2013). However, it must be clear to learners, educators and policy makers in Saudi Arabia that although storing information in the short-term memory (i.e. rehearsal) is essential for the self-regulated learning process, other cognitive skills such as critical thinking are important as well. As the new NQF in Saudi Arabia has announced, some of the main kinds of learning outcomes expected of students are:

> Cognitive skills, which include the ability to apply conceptual understanding of concepts, principles, and theories and apply

> procedures involved in critical thinking and creative problem solving. (NCAAA, 2009, p. 5)

5.2.2 Elaboration

Elaboration strategies assist learners to connect new information with previous knowledge. Unlike rehearsal, these enable them to store information into their long-term memory. Elaboration strategies include paraphrasing, summarising, creating analogies and generative note taking (Pintrich et al., 1991).

The participants on this blended learning course reported reasonable use of their elaboration abilities during their learning performance both quantitatively and qualitatively. The quantitative results indicate that participants gave a relatively high score (M=4.51, DS=1.878) for this strategy, according to (Pintrich et al., 1991). However, the individual responses are spread close to 2 points away from the mean. This could indicate that some responses are below and above the actual mean by as much as two standard points. The most apparent elaboration techniques were relating the material that they read to what they already know (Q64), writing brief summaries of the main ideas from their readings and their class notes (Q67) and making connections between the readings and the concepts from the lectures (Q69). This may show that participants on this blended learning course store new information into their long-term memory mainly by connection strategies, whether with what is already known, or with the reading materials and summarising the main ideas from the learning materials.

The qualitative aspect of the study reflects confirmed and complementary results. First, with respect to the confirmed results, the idea of using the connection and summary strategy to store new information into the long-term memory was also reported qualitatively (see(Alharbi, Paul, Henskens, & Hannaford, 2011; Pintrich et al., 1991). Other students summarised information to store it into their long-term memory, which was reported also quantitatively.

With regard to the complementary results, the qualitative results identified further strategies adopted by learners on this blended learning course to store new information into their long-term memory. This includes the following techniques: first, revising the information on a regular basis (Carpenter, Cepeda, Rohrer, Kang, & Pashler, 2012; Dempster, 1991); second, teaching and discussing the information with others (Kvam, 2000); third, visualising the information by drawing shapes and concept mapping (Kiliç

& Çakmak, 2013; Pintoi & Zetz, 1997; Zagami, 2008); fourth, using the repetition technique (Dempster, 1991; Hillary et al., 2003; Kılıç, Hoyer, & Howard, 2013); and, finally, paraphrasing the information in his own style (Alharbi et al., 2011; Pintrich et al., 1991).

5.2.3 Organisation

Organisation is among the cognitive and the metacognitive sub-aspects. It is about the learner being able to select the right information, as well as building connections between the information to be learned (Pintrich et al., 1991). It includes various strategies such as clustering, outlining and selecting the main ideas when reading passages (Pintrich et al., 1991).

It could be suggested that the participants on this blended learning course showed a relatively high level of organisation abilities, specifically finding the most important information and writing it in their own style, and outlining the learning materials in a way that makes it easy to tackle (Pintrich et al., 1991). The quantitative results would indicate that, although participants gave a relatively high score on the organisation scale in the MSLQ questionnaire (M=4.72, SD=2.014), the individual responses are spread more than 2 points away from the mean. This could show that some responses are below and above the actual mean by 2.014 standard points. Moreover, the quantitative results indicate that, although participants gave a relatively high score on the organisation scale in the MSLQ questionnaire (M=4.72, SD=2.014), most popular were going through the readings and their class notes to try to find the most important ideas (Q42) and outlining the material to help them to organise their thoughts (Q32). These two strategies were confirmed both quantitatively and qualitatively.

Both of the two observed elements on the quantitative findings were confirmed. To illustrate this, one of the strategies reported by participants is to determine the most important points then write these down in their own style when organising the information. Other students on the course outlined the learning materials by grading the information from the easiest to the most difficult, dealing with each separately.

Further complementary organisation strategies were identified qualitatively, namely clustering the information to be learned then establishing the connections between them (Pintrich et al., 1991). Additionally, some used the idea of labelling to organise the information on the course.

Cognitive organisers are tools that help learners to visual and represent facts, ideas, concepts and the connections between them (Tan, Dawson, & Venville, 2008). They assist the organisation and transformation of information since they involve learners in representing concepts and their interconnections, a skill that supports deep learning (Tan et al., 2008). The joint quantitative and qualitative results reflects what can be a sign of a positive level of organisation ability among participants, as well as various organisers adopted by them. According to the new NQF in Saudi Arabia, one of the five domains of learning outcomes expected of students is ‘knowledge, which involves the ability to recall, understand and present information, including knowledge of specific facts, concepts, principles, theories and procedures (NCAAA, 2009, p. 5). Therefore, there is a need for further empirical investigation into the impact of such cognitive strategy on the learning outcomes in Saudi Arabia.

5.2.4 Critical thinking

Critical thinking is a cognitive and metacognitive component. It concerns the ability of learners to apply knowledge that they already have to new situations in order to solve problems, make decisions or conduct critical evaluations with respect to criteria of excellence (Pintrich et al., 1991).

The participants on this course had a relatively high score on the critical thinking scale (M=4.23, SD=1.824), according to (Pintrich et al., 1991). However, this could not be regarded as at distinction level on the seven-point Likert scale. Furthermore, the individual responses are spread close to 2 points away from the mean. This could indicate that some responses are below and above the actual mean by 1.824 standard points. Neither did the qualitative findings reveal a great deal of information about how interviewees used their critical thinking abilities. To illustrate, just two main themes emerged from the transcripts. Many participants referred to external resources such as books, colleagues, the internet, family members and instructors when solving a learning problem. A few other participants reported that they used their own resources to solve learning problems by memorising and reading into the context of difficult information. I would suggest that the majority of responses reflect efforts made by the participants to seek help from further resources, rather than applying previous knowledge to solve a problematic learning situation during the course that is the basis of critical thinking (Pintrich et al., 1991).

These joint findings (i.e. quantitative and qualitative) could be a sign that that the participants on this blended learning course lack critical learning ability. This finding may be aligned with what has been revealed by a recent study in Saudi Arabia. This concluded that its participants affirmed how critical thinking is not the basis of educational programmes there; rote-learning and memorisation remain the main methods, and the students are dissatisfied with the technique (Allamnakhrah, 2013).

This finding could be understood from various perspectives. First, much research in secondary schools in Saudi Arabia concludes that there is a lack of critical thinking among students and teaching strategies (Allamnakhrah, 2013). In addition, it is noted that because high school graduates in Saudi are used to traditional teaching, there is a discrepancy between this type of teaching and what they receive when they enter post-secondary institutions, as this demands more critical thinking skills (Alnofaie, 2013). Another study, from the teachers' perspective, concludes that participating teachers are conscious of the crucial role of teaching thinking skills, but are basically unaware of what is involved (Al-Qahtani, 1995).

Recently, the NCAAA announced standards for HE institutions and programmes whereby learning outcomes should involve and promote learners' critical thinking skills and creativity (NCAAA, 2009). However, there is still no clear guidance on how to introduce critical thinking into HE institutions or how to build a culture of critical thinking (Alnofaie, 2013). Saudi scholars maintain that there is a lack of critical thinking among Saudi students and demand that any reforms must incorporate this into the Saudi education system (Allamnakhrah, 2013). As suggested by Allamnakhrah (2013, p. 206), there is:

> An urgent need for reforms of Saudi education system, with critical thinking as the basis of pre-service teacher education courses to limit the perpetuation of the rote-learning method of teaching and learning. Such reforms to the education system and curricula will undoubtedly impact on the culture in general in Saudi Arabia, facilitating the fostering critical thinking in future generations.

5.2.5 Metacognitive self-regulation

Metacognition is about the consciousness, knowledge and control of cognition. The focus of the MSLQ is on the control aspect of self-regulated learning rather than the knowledge aspect (Pintrich et al., 1991). It consists of three main metacognitive self-

regulatory activities: planning, monitoring and regulating. The scale that tends to be used to measure the cognitive and metacognitive sub-aspect consists of 12 items.

Participants in the quantitative part of this study achieved a relatively high score (M=4.61, SD=1.844). Seven of 12 items scored more than the average, and this may show that the following metacognitive and self-regulation attributes are popular among students in this study:

a) When they become confused about something they are reading for this class, they go back to try to figure it out (Q 41).
b) They ask themselves questions to make sure they understand the material they have been studying in class (Q 55).
c) When studying for this course they try to determine which concepts they do not understand well (Q 76).
d) Before they study new course material thoroughly, they often skim through it to see how it is organised (Q 54).
e) When reading for this course, they make up questions to help focus their reading (Q 44).
f) If course readings are difficult to understand, they change the way they read the material (Q 36).
g) They try to think through a topic when studying for this course and decide what they are supposed to learn from it, rather than just reading it over (Q 61).

The qualitative results varied with the type of metacognitive self-regulation component, as will be illustrated in the following paragraphs.

Planning activities relate to the idea of goal setting and task analysis in order to activate relevant aspects of previous knowledge that make organising and understanding of the material easier (Pintrich et al., 1991). Qualitatively, although most of the participants responded variously to this metacognitive self-regulation aspect, only some participants indicated explicitly positive or negative perceptions in relation to this unit of analysis. For instance, one group of responses reflected that some of the students on the course were not used to plan for their learning tasks, and the other group of responses showed different planning strategies.

With regard to the first type of responses, many reasons were reported by interviewees for not planning their learning tasks for this course. This included the engagement with other learning tasks and examinations, the negative attitude of some students to the idea of planning and the task design in which it was not designed in a way that required any planning effort. However, only a few students reported planning strategies that they apply to complete learning tasks in the course. These can be classified into two sub-themes: scheduling the learning task and performing the learning task.

Monitoring activities involve tracking one's attention during the learning performance (Pintrich et al., 1991). The participants on the course provided qualitative evidence that they monitored their learning performance, mentioning three main indicators in this regard in observing the duration of the study period, observing the learning outcomes at the end of the session and losing concentration during a learning session.

Regulating is about the ongoing adjustment of one's cognitive activities. This allows learners to improve their performance by checking and correcting their behaviour as they proceed with a task (Pintrich et al., 1991). The participants in the qualitative part of the study reported actions that relate to the idea of ongoing adjustment when they discovered that they did not learn what they should learn by the end of their study session. This included the following: studying again with more focus on the learning material, postponing the learning task, coming back to it later and changing their learning method.

It has been found that the use of self-regulating strategies such as comprehension monitoring, goal setting, planning and effort management is crucial to learning performance in various learning tasks (Pintrich et al., 1991).

The overall outcomes for the metacognitive self-regulation aspect were not the same, quantitatively or qualitatively. While the participants demonstrated what could be considered a high score on the quantitative scale, on the qualitative part of the study scores were at a different level for the metacognitive self-regulation components. Interviewees reported both negative and positive planning indicators, but positive indicators for monitoring and regulatory aspects, citing various strategies that they adopted during their learning sessions.

Based on the outcomes, I would suggest that there is a possible issue regarding participants' ability to plan their learning activities. These findings may suggest that further attention is needed to ensure that students in Saudi Arabia's higher education are able to understand the 'what' of cognitive strategies, and also 'how' and 'when' to use these strategies appropriately (Pintrich et al., 1991). The summary of the outcomes from the cognitive and metacognitive aspect will be provided later in the conclusion chapter.

5.3 Learning Resource Management Aspects of the Study

The learning resource management aspect of self-regulation focuses on the ability of the learners to select, structure and create environments that optimise their learning (Kadhiravan & Suresh, 2008; Zimmerman, 1986). It identifies a learner as a person who seeks out advice, information and places that can help them to learn (Zimmerman, 1990). Montalvo and Torres (2008) find from the literature that students who self-regulate their own learning differ from those who do not. They have an ability to plan and manage their time and effort on tasks, as well as an awareness of how to create an effective learning environment to study in. When they encounter any difficulties in their learning, they seek help from others such as teachers and other students (Montalvo & Torres, 2008). The learning resource management aspect of self-regulation includes four sub-aspects: time and study environment, effort regulation, peer learning and help seeking (Pintrich et al., 1991).

This aspect of self-regulated learning was investigated both quantitatively and qualitatively through the first and fourth research sub-questions:

> ***Sub-Q1:*** **Which aspects of self-regulated learning are more apparent on a blended learning course? (the resource management strategies section of MSLQ)**
>
> ***Sub-Q4:*** **How do male learners at King Khalid University manage their learning resources on a blended learning course?**

The outcomes from both the quantitative and qualitative data will be discussed under the following sub-titles.

5.3.1 Time and study environment management

Time management is about the student being able not only to set aside blocks of time to study, but to set realistic objectives and effective use of study time. Time management also differs in level, from an evening of studying to weekly and monthly schedules (Pintrich et al., 1991). Study environment management is about setting where the student does homework. Preferably, the study environment should be organised, quiet and relatively free of distractions (Pintrich et al., 1991).

The quantitative and the qualitative results on the sub-aspect of time management are not quite the same. The overall scores on time and study environment scale are relatively high. Although the average score for the means on the time and study environment items may be seen as relatively high (M=4.28, SD=1.965) (Pintrich et al., 1991), the individual responses are spread about 2 points away from the mean. This could reflect that some answers are under and above the actual mean by about 2 standard points. Moreover, the average score for the means on the time and study environment items is relatively high (M=4.28, SD=1.965) (Pintrich et al., 1991). The responses varied with individual items. On the one hand, the findings could show that the participants attended this class regularly (Q73), studied in a place where they could concentrate (Q35), had a place set aside for studying (Q65), made good use of their study time (Q43) and made sure that they kept up with the weekly reading and assignments for this course (Q70). On the other hand, the outcomes may indicate that participants on the course did not do well and scored low (Pintrich et al., 1991) on the these items: following a study schedule (Q80), finding time to review their notes or readings before an examination (Q52) or spending enough time on this course because of other activities (Q77). So, how can the quantitative outcomes be perceived from the qualitative perspective?

The outcomes from the interviews revealed that, with respect to the time management interview item, many of the participants did not have a specific time for learning apart from just before the examination. These outcomes complement what is already known from the quantitative results in this study, that participants did not adhere to a study schedule, did not find time to review their notes or reading before an examination and did not spend much time on this course because their engagement with a part-time job. Another reason is the nature of the subject and whether it requires much effort or not.

Further, other participants reported that it is part of their learning habits not to have a certain time for studying and being engaged with entertainment most of the time. However, a few responses from the interviews indicate that some participants do have a scheduled time for studying as well as having strategies for managing this time.

Many studies have been conducted to explore the consequences of these factors on learning achievements and outcomes. For instance, it has been concluded that part-time working may have an effect on both the mental and physical health of students, and that working more hours increases the possibility that students perceive a negative effect on their academic performance (Beffy, Fougère, & Maurel, 2010; Carney, McNeish, & McColl, 2005). In Saudi Arabia, it was announced by the new NQF (NCAAA, 2009) that developing interpersonal skills, including the ability to take responsibility for their own learning and continuing personal and professional development, is one of the learning outcomes expected of students. I would suggest that the findings on time management aspects among participants in this study could present a challenge in managing this learning resource. Therefore, it is recommended that a further confirmatory study of this finding is conducted on a larger scale of participation, as well as a further correlation study about whether the negative reported study time management indicators have an actual effect on achievement and performance.

With respect to study environment management, this refers to ‘the setting where the student does their class work. Ideally, the learner’s study environment should be organised, quiet, and relatively free of visual and auditory distractions’ (Pintrich et al., 1991, p. 25). The outcomes from the interview item confirm what is revealed by the quantitative part of the study. The quantitative data show that most of the students on the course usually study where they can concentrate. The quantitative results indicate that most of the students on the course have a place set aside for studying. This idea was confirmed by the qualitative results, This finding is compatible with what is suggested by Pintrich et al. (1991), that self-regulated learners usually seek to study in an environment that is organised, quiet and relatively free from visual and auditory distractions (Pintrich et al., 1991; Wolters, Pintrich, & Karabenick, 2003).

5.3.2 Effort regulation

Effort regulation is about self-management and reflects a commitment to completing one’s study goals, even when there are difficulties or distractions (Pintrich et al., 1991,

p. 27). Reflecting on both the quantitative and qualitative findings, the following observations may be drawn.

Participants scored what could be a relatively high score on the effort regulation scale (M=4.47, SD=2.006). Nevertheless, some individuals varied from the collective score as reflected by the standard deviation of the score where some responses are below and above the actual mean by 2.006 standard points. Also, only two items of the scale were above the average: Q48 (M=5.03, SD=1.836), Q74 (M=4.57, SD=1.876). This indicates that students on this blended learning course shared the following effort regulation characteristics: working hard to do well in this class, even if they do not like what they are doing and when course materials are dull and uninteresting; they manage to keep working until they finish. This quantitative result may show that the participants on that course are committed to completing their study goals, even when there are difficulties or distractions (Pintrich et al., 1991).

Most of the participants in the qualitative part of this study confirmed such conclusions. They were asked in interview: ‘what do you normally do when you encounter distractions and uninteresting learning tasks in this course?’ Most of the responses affirmed that students would carry on studying the learning materials until they finished. However, the strategies that they use to regulate their efforts in such situations differ, including the following strategies. First, dividing the learning load when they encountered distractions and uninteresting learning tasks in this course. Second, others prefer to keep going on without any change until the end of the session. Third, one of the obvious extracted themes is breaking the situation if the students on the course encountered distractions and uninteresting learning tasks. Fourth, swapping between subjects when they encountered distractions.

The outcomes from the quantitative and qualitative parts of the study could be compatible regarding the possible common attributes among the participants on this blended learning course, in which they have a reasonable level of commitment to complete their study goals even when they face difficulties or distractions (Pintrich et al., 1991). Further correlation studies on blended learning environments in Saudi Arabia are needed to confirm what is already suggested by Orhan (2007) and Shea and Bidjerano (2010) about the potential positive relationship between blended learning

environments and the increased level of learners' self-regulated learning abilities, including effort regulation in Saudi Arabia.

5.3.3 Peer learning

The peer learning dimension is about the learner collaborating with peers via dialogue to clarify course material and reach insights they may not have attained on their own (Aldossari, 2013; Pintrich et al., 1991). This sub-aspect of self-regulated learning was explored both quantitatively and qualitatively, and I discuss the main findings in the following paragraphs.

It is clear from both the quantitative and qualitative results that learners on this blended learning course have issues with collaborating effectively with their peers on the course. The overall score on the peer learning scale in the quantitative aspect of this study shows a low performance among participants (M=3.23, SD=2.095). In addition, the individual responses are spread more than 2 points away from the mean. This indicates that some responses could be below and above the actual mean by 2.095 standard points. The qualitative part of this study confirms the outcome, as the number of participants who indicated negatives exceeded those who reported positive indicators. Both the quantitative and qualitative findings could reflect a level of peer learning of concern among the learners on this blended learning course.

Three possible reasons were revealed by the qualitative findings. First, the absence of a relationship with the other students on the course was one of the reported reasons; as one said: 'no, I do not cooperate with my colleagues in studying for this material… because I do not know any of them… I know nobody….'. Salmon (2000) suggested in the second phase of her five-stage e-moderation model that the emphasis is on social aspects, and socialisation with peers and the e-moderator is the essential activity. Learners in this phase familiarise themselves with each other and build bridges between cultural and social barriers (Salmon, 2000). It appears that a possible reason for the lack of this self-regulated aspect among participants could be their absence of socialisation, especially for a general elected module such as SALAM 113, onto which students from different subjects and majors are enrolled.

Another possible reason for the lack of a peer learning strategy among participants on this blended learning course could be the instructional design; as one of the interviewees

reported, ‘for this course I do not collaborate with others… because it has no questions that require collaboration... it is only to be memorized...’. A similar conclusion was drawn in other studies in Saudi Arabia. For instance, Alkhalaf, Nguyen, Nguyen, and Drew (2011) noticed that although the students in a study were pleased with the design of the available collaboration tools (e.g. chatrooms and discussion boards), it seems that the course design did not make sufficient use of these. Almost half the responding students stated that they were not required to collaborate with other students (Alkhalaf et al., 2011). The importance of preparing and organising the learning materials for group-centred activity is now realised in Saudi (Algarfi, 2010).

In the context of Saudi higher education, many studies have affirmed that the reason for some students’ lack of success is their adoption of traditional learning methods such as memorising information to achieve success in examinations (Al Dawood, 2007 cited in Alnassar & Dow, 2013). It is concluded by studies in Saudi Arabia that teaching and learning through traditional methods results in high rates of failure among university students, reportedly between 25 and 30 per cent of new students (Aljuda 1990 cited in Alnassar & Dow, 2013). It is suggested that if teaching staff do not develop their teaching techniques to provide learners with opportunities to enhance their learning confidence, students will fail to adopt self-learning skills or deeper professional and cultural abilities (Alnassar & Dow, 2013). Accordingly, it is emphasised by Smith and Abouammoh (2013) that achieving high quality teaching and learning standards presents one of the main challenges to Saudi universities, and this includes students’ ability to build their learning skills.

5.3.4 Seeking help

Seeking help from others is another aspect of resource management. Learners are able to identify when they do not know something and who can provide help (Pintrich et al., 1991).

Both the quantitative and qualitative results show that students in the study seek help from others when they face difficulties as a way of managing their learning resources. The quantitative findings could indicate that the participants on this blended learning course had a relatively high score on the help-seeking scale (M=4.05, SD=1.998), which may reflect that they would seek help from others when they encounter difficulties during the course. However, the individual responses are spread close to 2 points away from the mean. This could indicate that some responses are below and above the actual

mean by 1.998 standard points. The only item that scored above the average is Q75 (M=5.11, SD=1.850). This may show that participants share the attribute of trying to identify students in this class to ask for help if necessary. Although the qualitative results confirm what is reported from the quantitative aspect of the study, the students differ when it comes to the kind of people from whom they seek help. This includes the following people: seeking help from relatives if they have difficulties with the course, seeking the help of the instructor, seeking the help from an expert in the subject and seeking help from their classmates.

Many national initiatives in higher education have been launched in Saudi Arabia to enhance the learning abilities of learners. For instance, the preparatory year established at some universities plays a significant role in preparing both male and female students for their new environment and enables them to overcome difficulties they may encounter in their study journey. During this year, specialised centres provide counselling and guidance, and educational and training programmes on study skills help students achieve excellence (Alnassar & Dow, 2013). Although the overall outcomes in this current study show a positive level of help seeking among participants, I would recommend that any initiatives in Saudi should aim to avoid two forms of help misuse: help avoidance (underuse) and help abuse (overuse) (Roll, Aleven, McLaren, & Koedinger, 2011). One suggested way to achieve a balance is to develop students' ability to conduct task analysis in help-seeking (Aleven, Stahl, Schworm, Fischer, & Wallace, 2003): a) become aware of need for help; b) decide to seek help; c) identify potential helper(s); d) use strategies to elicit help; and e) evaluate the help-seeking episode (Aleven et al., 2003). The summary of the outcomes from the learning resource management aspect will be provided later in the conclusion chapter.

Chapter 6: Conclusion

The implementation of blended learning is increasing dramatically in universities in Saudi Arabia. Although many studies have been conducted recently to investigate different perspectives of blended learning in higher education, none give a clear and comprehensive understanding about learner presence in such a learning environment. This mixed method study is conducted to explore in depth how male learners regulate and manage their own learning on a blended learning course at one of these universities. This exploratory study adopts the Pintrich et al. (1991) framework, involving investigation of the following main aspects of the learner in such a learning environment: motivational, cognitive and metacognitive, and learning resource management. In this chapter I draw conclusions from the main findings of the study, its contributions and its limitations, and make recommendations for future research.

6.1 Summary of the Motivational Aspect

Zimmerman (1986) suggests that the motivational aspect of self-regulated learning perceives a learner as a person who views him or herself as competent, self-efficacious and autonomous. This study adopts the self-regulated learning framework suggested by Pintrich et al. (1991) in which the motivational scales are based on three general motivational constructs: value, expectancy and affect (Duncan & McKeachie, 2005). The value components focus on the reasons students engage in an academic task, while the expectancy components refer to students' belief that they can accomplish a task; the third general motivational construct is affect, implemented in terms of response to the test anxiety scale that taps into students worry and concern about taking examinations (Duncan & McKeachie, 2005).

Reflecting on the results from both quantitative and qualitative aspects of this study in the light of the first and second research sub-questions:

Sub-Q1: Which aspects of self-regulated learning are more apparent on a blended learning course at King Khalid University? (Motivational section of MSLQ)

Sub-Q2: How do male learners at King Khalid University motivate themselves on a blended learning course?

It could be concluded from the value component of the motivational aspects of self-regulated learning that, because of the possibility that the participants are keen to understand the learning content as thoroughly as possible, they would be intrinsically engage in the learning tasks. This is for various reasons qualitatively: updating information, the relevance of the learning materials to their future life, a preference for the subject itself and the priority they gave to the learning content over other subjects. Moreover, the outcomes from the research could indicate that since participants on this blended learning course wanted to achieve high grades to enhance their GPA, they were extrinsically engaged in the learning tasks. Interestingly, the participants scored higher for extrinsic goal orientation than intrinsic goal orientation. This was confirmed qualitatively, as most participants said that the idea of raising their overall average was among their most notable reasons for engaging with the learning tasks on this blended learning course. Such a finding can easily be understood due to the central role of grading in their previous educational assessment experiences in Saudi Arabia. The quantitative findings may show that on average the participants appreciated both the learning materials and the subject matter; this was explained qualitatively by their association with important aspects of their everyday life, the improvement in their learning skills and independency skills, respect for their voice and the stimulation of their thinking abilities.

The conclusion from the expectancy component of the motivational aspect of self-regulated learning is that most of the participants on this course showed what could be a relatively high score on control learning beliefs quantitatively, that is, they believed that if they studied in an appropriate way and expended the necessary effort, they would learn and understand the learning materials. Although the interviewee reported actions in the qualitative results were not completely compatible with the quantitative results, it seems that the participants could be conscious of a relationship between their learning consequences (whether good or bad) and the effort that they had put into the course. Furthermore, the data could reflect that the participants in the study scored relatively highly in self-efficacy for learning quantitatively. The qualitative part of the study revealed different issues behind the decrease in the level of their motivational component, such as level of absenteeism from classes, a low level of readiness to master online learning tasks by developing the vital skills, the stress of having multiple learning tasks at the same time and a low level of self-esteem.

Reflecting on the affect component of the motivational aspect of self-regulated learning, the following conclusions may be drawn. First, both the quantitative and qualitative results affirm that there could be an issue in relation to the worry component of test anxiety. This was understood qualitatively from a number of perspectives such as: a) thinking about the difficulty of the examination; b) habitual worrying before any examination; c) being less than confident about their preparation; d) having more than one examination on a single day and; e) identifying a question in the test that they did not recognise. Second, not all learners on the course had the same level of worry, as illustrated qualitatively by several reasons, such as being well prepared before the examination, being confident about achieving a good grade, the difficulty of the subject and finding aspects that were studied yet could not be answered. Finally, three types of emotional feelings associated with test anxiety were observed among some participants through the qualitative results: being anxious; being stressed; and being tense.

6.2 Conclusion of the Cognitive and Metacognitive Components Among Participants

In this section, I discuss the conclusion of the cognitive and metacognitive aspect from both quantitative and qualitative perspectives. This aspect of self-regulated learning comprises five main components: rehearsal, elaboration, organisation, critical thinking and metacognitive self-regulation (Pintrich et al., 1991).

Reflecting on the results of the cognitive and metacognitive aspect that are covered by the following research sub-questions:

> **Sub-Q1: Which aspects of self-regulated learning are most apparent on a blended learning course at King Khalid University? (Cognitive and metacognitive section of MSLQ)**
>
> **Sub-Q3: How do male learners at King Khalid University use their cognitive and metacognitive abilities on a blended learning course?**

the following conclusions can be drawn. First, participants on this blended learning course could be using the strategy of highlighting key words when activating new information in their short-term memory. They would apply this strategy in different ways such as marking new concepts, initially reciting them and writing them down.

Both the quantitative and qualitative data that refer to the repetition technique as a learning strategy to store new information in short-term memory are in conflict, perhaps because it is a technique more popular for storing new information in long-term memory. Second, there were few differences, quantitatively and qualitatively, with respect to the elaboration sub-aspect. The students may connect new information to previous information and summarise the main ideas in order to store new information in their long-term memory. Further strategies revealed by the qualitative findings include: revising the information on a regular basis; teaching and discussing the information with others; visualising the information by drawing shapes and concept mapping; using a repetition technique; and paraphrasing the information in their own words.

Third, the participants on the course may have had strategies in common, both quantitatively and qualitatively, when organising the information during their studies. They could write the most important information in their own style and outline the learning materials in a way that made it easy to tackle. In addition, complementary strategies arose from the qualitative findings, including clustering the information to be learned then establishing the connections between them, and labelling the information that they learned on the course. Further correlational study is needed to investigate the impact of such cognitive strategies on learning outcomes on blended learning courses in Saudi Arabia.

Fourth, for the critical thinking sub-aspect, results from the quantitative and qualitative aspects of the study were again in conflict. Although participants on this blended learning course demonstrated what could be an indication of critical thinking abilities in the quantitative part of the study, the findings from the qualitative part of the study revealed little in this regard. The joint finding (i.e. quantitative and qualitative) could be a sign that participants on this blended learning course lack critical learning abilities. Such an observation aligns with what was revealed in a recent study in Saudi Arabia and a continuous effort to enhance such a cognitive learning aspect is recommended.

Finally, with respect to metacognitive self-regulation abilities, participants on the course gave what could be a high score in the quantitative aspect of the study. The responses from the qualitative aspect varied with the different components of the metacognitive self-regulation sub-aspect (i.e. planning, monitoring and regulating). To illustrate, the qualitative findings show that the negative indicators outnumbered the positive ones in

the planning component of the metacognitive self-regulation aspect. These negative indicators include several reasons reported by interviewees for not undertaking any planning in order to accomplish their learning tasks for the course, as illustrated previously. For the monitoring component, the participants in the interview sessions reported what may be perceived as indicators of their ability to monitor their learning performance, such as observing the duration of their learning sessions, their learning outcomes and their level of concentration during the learning session. The same conclusion may be drawn with respect to the regulating component. Most interviewees provided many indicators about their ability to regulate their cognitive activities such as studying again, quitting the learning task to come back to it later and changing their learning method. It is recommended that Saudi Arabia's universities need to ensure that students are actually able to understand the 'what' of such cognitive strategies, and also 'how' and 'when' to use these strategies appropriately during their learning.

6.3 Conclusion of the Learning Resource Management Aspects

In this chapter I discuss the results of the learning resource management aspect that include four main scales on the MSLQ questionnaire: time and study environment; effort regulation; peer learning; and help seeking (Pintrich et al., 1991).

Reflecting on the outcomes of both the quantitative and qualitative results with regard to the learning resource management aspect, in the light of the following research sub-questions:

> **Sub-Q1: Which aspects of self-regulated learning are more apparent on a blended learning course at King Khalid University? (The resource management strategies section of MSLQ)**
>
> **Sub-Q4: How do male learners at King Khalid University manage their learning resources on a blended learning course?**

the following conclusions may be suggested. The participants on the course responded quantitatively with what would be a relatively high score on the time and environment management scale. However, the item on the MSLQ questionnaire that relates to time management scored low, which may indicate an issue among participants in this regard. The qualitative side of this study confirms this issue, as many of the participants

affirmed that they had no regular time for studying for this course apart from before the examination. They referred to more than one reason, as indicated previously. A further confirmatory study is recommended on such findings at a larger scale of participation, as well as correlation research on whether negative indicators have an actual effect on achievement and performance in Saudi. With respect to study environment management, both quantitative and qualitative results confirm the same findings. Most of the learners on the course preferred to study in a place that would help them to focus on the learning materials, and studied in a regular place.

Moreover, in relation to the effort regulation sub-aspects, the outcomes from both quantitative and qualitative results affirm what could be seen as a commitment on the part of participants on the course to accomplishing their learning goals when studying for this course, even when encountering difficulties and distractions. Interestingly, there was clear evidence from both the quantitative and qualitative results that most of the students on the course did not collaborate much with peers. This conclusion was interpreted qualitatively as having several reasons, as explained previously. Finally, unlike peer collaboration, most students on the course affirmed both quantitatively and qualitatively that they asked for help from others when they faced difficulties during their study, in different ways.

6.4 Contributions of the Study to Knowledge

Various models have been suggested for the main components of self-regulated learning, such as those by Boekaerts (1992, 1995, 1996a, 1996b), Borkowski (1996), Winne and Hadwin (1998), Zimmerman (2000) and Pintrich (2000), as introduced in the literature review. Since this study adopted ‘Pintrich (2000) framework’ of self-regulated learning, the outcomes could help to identify elements that affect the self-regulated phases based on the framework. For illustration, according to Pintrich (2000) ‘framework’, self-regulated learning consists of four phases: forethought; monitoring; control; and reflection.

The forethought phase involves activities that include cognitive, motivational and effect, behavioural and context areas (Pintrich, 2000). This exploratory study identified the factors that may affect such areas, including the adoption of a goal orientation (Pintrich, 2000). For example, in the motivation and affect area of the forethought

phase, a number of possible reasons for being engaged in learning task were identified intrinsically and extrinsically, as illustrated previously. In addition, the negative indicators revealed in this study in relation to planning for learning could assist in understanding the possible factors of this behavioural aspect in this self-regulated phase, which involve time and effort planning (Pintrich, 2000). Finally, with regard to the context of the forethought phase, such as perception of tasks (Pintrich, 2000), participants in this study reported attributes that they valued in relation their learning task such as its association with contemporary life, improving to their learning skills and stimulating their thinking.

The monitoring phase includes the learner being aware of and monitoring their cognition, motivation, affect, use of time, effort, and task and context conditions (Pintrich, 2000). The results could suggest the factors of this self-regulated learning phase. For instance, the negative indicators revealed in this study in relation to study time management could help our understanding of the factors affecting this behavioural aspect in this self-regulated phase. Furthermore, regarding test anxiety, which relates to the effect component of the motivational aspect of self-regulated learning, a number of elements were revealed by the qualitative data that could contribute to having or not having test anxiety as illustrated previously. I would suggest that the awareness of such possible factors by both instructors and learners would help to enhance the overall monitoring phase.

The third phase is of control activities, referring to the idea of selecting and adapting strategies for regulating effort and task negotiation, which includes managing learning, thinking, motivation and affect (Pintrich, 2000). The findings identified various strategies adopted by the participants in the qualitative part of the study that could assist them in regulating their learning effort in different learning situations. To illustrate, it was noticed that when learners encountered distractions and uninteresting learning tasks on this course, the following strategies were adopted: dividing up the load of the learning task; breaking off from the situation; and swapping between subjects. I would suggest that such findings could contribute to our perception of possible strategies to enhance the control phase of self-regulated learning.

Finally, the reflection phase is about cognitive judgement, affective reactions and the evaluation of choices, task and context (Pintrich, 2000). The findings in this study

indicate various reflective actions that may be adopted by participants. For example, interviewees reported that they monitored their learning performance through three main indicators, namely observing the duration of the study period, observing the learning outcomes at the end of the session and whether they maintained concentration. Participants in the qualitative part of the study reported actions that relate to the idea of ongoing adjustment on discovering that they had not learn what they should learn by the end of their study session. These include the following: studying again with more focus on the learning material; postponing the learning task; coming back to it later; and changing their learning method. Such observations could assist in understanding the indications that could be used by learners when reflecting on and judging their learning outcomes, as well as the types of adjustments that they could adopt because of their reflective efforts.

However, this study was designed mainly to explore how male learners on a blended learning course regulate their own learning at one of the Saudi universities. Therefore, the factors and strategies that emerged from the different self-regulated phases should be perceived in that context; further studies on a larger scale of participation are needed to confirm the frequency of such findings. In addition, due to the exploratory nature of the study, the focus was on understanding how learners on this blended learning course regulated their learning from three main aspects: motivation; cognitive and metacognitive; and learning resource management. It is recommended that the area is investigated further through correlation studies on which factors and strategies revealed by the study are most influential within each phase of self-regulated learning, according to Pintrich (2000) ‘framework’.

This study contributes to the gap in the knowledge of blended learning environments in Saudi Arabia from several perspectives. First, the results on how learners on a blended learning course in Saudi Arabia regulate and manage their own learning in such environments provide policy makers in Saudi universities with a comprehensive understanding about one of the main presences on a blended learning course, that is, the learner presence, as suggested by (Shea & Bidjerano, 2010). This potentially wide understanding includes motivational, cognitive and metacognitive, and learning resource management strategies. Second, the outcomes of the study may assist practitioners and instructors when developing and managing their blended learning environments. Many issues and factors affecting the performance of learners on a

blended learning course were identified. For example, they appreciated learning tasks that stimulated their thinking. This provides instructors with an instructional design criterion to support students' motivation. The same may apply to outcomes from the other two main aspects of self-regulated learning, as illustrated in the summary of the main findings.

An Arabic version of the MSLQ would be a useful instrument for researchers in Arabic countries without access to the English version, for various reasons such as language. Finally, the 19 interview items in this study developed from the MSLQ questionnaire may prove useful qualitative research instruments in exploring the concept of self-regulated learning and they can be linked to the MSLQ questionnaire when exploring self-regulated learning from a mixed method approach.

6.5 Recommendations of the Research

Although it could be suggested that the overall outcomes from the study may reveal a positive level of self-regulated learning abilities (i.e. motivation, cognitive and metacognitive, and learning resource management) among participants, there are many aspects of self-regulated learning that need to be considered. This section includes a number of recommendations and suggestions for further research into the blended learning environment in Saudi Arabian universities.

6.5.1. Recommendations for managing the motivational aspect of self-regulated learning on blended learning courses in Saudi universities

To help manage the motivational aspect of self-regulated learning on a blended learning course at Saudi universities, based on the outcomes of this study it is recommended that:

1. The learning materials are designed in a way that makes learners more eager to understand the learning course as thoroughly as possible. The study identified some possible ways, such as keeping the learning materials relevant to students' future life.
2. Optimum use is made of the keenness of learners to gain high grades to enhance their GPA. This extrinsic goal orientation element could help to drive their learning motivation to accomplish challenging learning tasks that contribute to the enhancement of their learning abilities.

3. Learning tasks are designed to help the learners to develop learning and independence skills, as reported in the study.
4. The learners' voice should be heard in the different learning processes, as the results in this study may align with what has been reported by other studies: the more choice and control that learners are given, the more motivated and engaged they are likely to be.
5. Learning tasks are designed to stimulate learners' creative thinking on this blended learning course, as it would be appreciated by many participants in the study.
6. Further investigation is considered into the main factors of what is perceived as a contradiction between the learners' beliefs regarding what is important for them to learn and how they actually perform in a blended learning environment in Saudi Arabia.
7. The different factors for the decrease in self-efficacy for learning and performance. This study suggests the following factors: a) a low level of self-discipline in attending face-to-face classes, b) a low level of readiness to master online learning through acquiring the necessary skills, c) pressure of multiple learning tasks at the same time and d) a low level of self-esteem among learners.
8. A framework that addresses the possibly worrying level of test anxiety among learners on a blended learning course is established, as it could be the case in this study. The framework must include both the test situation and the test taker, as illustrated in the discussion chapter.

6.5.2. Recommendations for managing the cognitive and metacognitive aspects of self-regulated learning on a blended learning course in Saudi universities

Although the overall results may show that participants in the study may have a reasonable level of using their cognitive and metacognitive abilities, the following recommendations can be made in this regard:

1. This study emphasises the importance of continued efforts and initiatives by the Ministry of Higher Education to improve learning skills in learners. A negative example from this study is the lack of planning skills as reported qualitatively.
2. The participants in this study reported using various cognitive and metacognitive skills. It is recommended to motivate and reinforce such skills by framing and

highlighting them in such a way as to make them more visible to learners and to their peers.

3. The findings in this study may support what has been reported in the literature, that there is a lack of critical thinking among Saudi students; therefore, any reforms must also incorporate critical thinking in the Saudi education system.

6.5.3. Recommendations for managing the learning resource management aspects of self-regulated learning on a blended learning course in Saudi universities

The students in this study reported what could be perceived as a relatively high level of learning resource management. However, the following are recommended:

1. The results from the study would suggest that the concept of learning time management is virtually restricted to defining a time for studying the learning materials before the examination, and that there could be no fixed time for regular study. Therefore, it is recommended to review and investigate this aspect in the light of the reasons reported in the discussion chapter.
2. There could be clear evidence that participants on this blended learning course had issues with respect to the peer learning skills. It may be recommended that further empirical investigation is needed to examine which of the factors revealed by this study play a major role in improving the resource management strategies of blended learning students.

6.6 Study Limitations and Suggestions for Further Research

This study is limited to exploring and understanding in depth male learners' presence on a blended learning course in Saudi Arabia from three main perspectives: motivational, cognitive and metacognitive and learning resource management. Therefore, other presences in this blended learning environment such as social and teaching presence are not included. It is recommended that further studies are conducted to explore in depth these other presences to draw an overall image of the potential and challenges of blended learning in higher education. Furthermore, this study is limited to male students because of the segregation policy in Saudi Arabia. The researcher would not have achieved equal access to both males and females, especially in the qualitative part of the study. Therefore, it would be interesting to conduct the same setting of the study with

female students and to establish the main similarities and differences with the current study.

Moreover, this study was designed to explore the aspects of self-regulated learning among participants on a blended learning course at King Khalid University. It is worth emphasising that, due to the limited time for this study, the data in this study were gathered by offline methods, which may be used by a researcher at the end of an online session to ask a learner why particular cognitive and metacognitive processes were used, for example (Azevedo et al., 2010). Moreover, this study perceived self-regulated learning as an aptitude whereby a students' study actions can be collected through inventories by asking a learner to imagine a learning episode. Two main instruments were used, namely inventory-generated self-report data such as surveys and think-aloud self-reports such as interviews (Winne & Perry, 2000). However, it was argued that when gathering data about self-regulated learning, these perceptions are insufficient. This is because making the same response, for example about a certain learning tactic, does not have the same context (Winne & Perry, 2000). Therefore, it is one of the recommendations from this study that a further exploratory study is conducted using data gathered online. A synchronised think-aloud protocol is an example of an online method because cognitive and metacognitive processes are generated when a learner is using an online environment (Azevedo et al., 2010). The outcomes from such a study would be used to confirm and compare what has been found in the current study.

With respect to the subject of the chosen module, given the reasons for the choice as explained previously, two main limitations would be suggested. First, SALAM 113 is a general requirement module, designed and delivered in a way to suit non-specialist students from various departments by highlighting legislation in the Islamic community, comparing its principles with other social systems and principles worldwide. I would expect learners on a general requirement module to be less engaged than on core requirement modules associated with their major subjects. This observation could have an influence on their self-regulated aspects. However, this study was not designed to explore this possible influence and it would be interesting to investigate the concept of self-regulated learning in a context of a core requirement module to compare it with the outcomes of this study.

Second, as a non-core module, only two hours per week and a total of 30 hours during the full academic semester of 15 weeks were assigned to study the module on this blended learning course. I would expect that such a limited time would influence the level of engagement with learning materials and the self-regulated aspects, resulting in other modules having more weight in the overall academic plan. It is not the focus of this study to investigate this possible influence, so it is recommended to investigate the impact of the time weighting of a certain module on the concept of self-regulated learning among certain learners in Saudi Arabia.

Finally, this study argues that there is a gap in our overall understanding of how learners regulate their learning on blended learning courses in Saudi Arabia's universities. This study is limited to exploration, and it would be compelling to conduct further correlation studies to investigate the relationship between the different main and sub-aspects of self-regulated learning, as well as the relationship between these aspects, and learning outcomes and achievements.

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Appendix A: Self-regulated learning and learning theories:

Despite learning theories giving different explanations for the learning process and how it occurs, they share some basic definitional assumptions about learning (Driscoll, 2000). First, they refer to learning as ongoing change in human performance or performance potential. Second, they emphasise that the change must be as a result of the learner's experience and interaction with the world (Driscoll, 2000). Since my study will explore the way in which learners regulate their own learning on a blended learning course at King Khalid University, it is essential at the beginning to define the learning process and explore how it occurs. To address this question, I will introduce three of the most influential learning theories that attempt to explain the learning process: 1) behaviourist learning theory; 2) cognitive learning theory; and 3) social cognitive learning theory. Then, I will attempt to identify the main conceptual similarities and differences found among these three learning theories. Finally, I will attempt to explain how self-regulated learning is related to these learning theories in general, and which of these theories will be utilised as the theoretical framework in my research.

Behaviourist learning theory

Behaviourist learning theory is one of the most important learning theories to have influenced education. It can be traced back to Aristotle, who suggested that 'memory' focused on associations being made between events such as lightning and thunder (Austin et al., 2001). Later, the theory was developed in more detail by Pavlov, Watson, Thorndike and Skinner; Watson is the theorist credited with coining the term 'behaviourism' (Austin et al., 2001).

The basic idea of behaviourism is that learning focuses on changes in individuals' observable behaviours, including what people say and do (Seifert & Sutton, 2009). Moreover, the aim of this learning approach is to transform the learner's behaviour into a 'desired' behaviour, and they will be rewarded often for exhibiting the desired behaviour when they accomplish a learning block (Cbraziel et al., 2006). Behaviourists believe that learning is shaped by external factors rather than by the characteristics of the individual learner (Austin et al., 2001). It is suggested that people will learn desired behaviours when stimuli from their external environment recognise and reinforce the

behaviour positively and, similarly, undesired behaviours can be controlled or eliminated by there being an absence of attention (Cbraziel et al., 2006). It is clear from the literature that there are three fundamental principles common to behaviourist learning theory: first, learning should be presented in blocks that can be managed (Austin et al., 2001; Kearsley, 1994); second, the desired behaviour will most likely be prompted to occur again due to positive reinforcement (Cbraziel et al., 2006; Kearsley, 1994); and finally, secondary conditioning can result from the stimulus generalisation of learning (Kearsley, 1994).

Various aspects of this learning theory have been criticised, first, for being overly simplistic (Cbraziel et al., 2006), and for not providing a deep understanding of the other aspects of the learning process such as the mental aspects of learning. For instance, the evidence has emphasised that those tasks requiring more complex thinking and higher mental processes are not generally well-learned using the behaviourist approach (Austin et al., 2001). Moreover, it could be argued that this learning theory tends to diminish the possibilities in human learning (Cbraziel et al., 2006) since behaviourists believe that learning is shaped by external factors rather than by the characteristics of the individual learner (Austin et al., 2001). Finally, although focusing on behaviour on one occasion instead of on 'thoughts' may have been desirable at that moment, it is not necessarily desirable all of the time. For example, even as a beginner, there are times when it is more essential to be able to describe how to drive or to cook than just do these things (Seifert & Sutton, 2009).

However, behaviourist learning theory still has a great influence on education; for instance, this approach to learning guides the development of highly-sequenced and structured curricula, programmed instructional approaches, workbooks, and other tools (Austin et al., 2001). Moreover, it can provide a useful framework for the enhancement of some types of skills, especially those that can be learned completely by rote through reinforcement and practice (Austin et al., 2001). Furthermore, behaviourism is most useful for understanding changes in students' thinking by identifying the relationship between a specific action by a learner and the immediate response to that action (Seifert & Sutton, 2009). However, further discussion will be presented later in this section about how compatible behaviourist theory is with self-regulated learning.

Cognitive learning theory

In the late 1950s, there was a shift toward learning theories, and educators focused more on complex cognitive processes and internal mental processes rather than observable behaviour. This includes information acquisition, processing, storage, and memory, which are vital to learning (Crawford, 2009). Piaget (1896–1980) developed one of the essential theories in cognitive psychology (Huitt & Hummel, 2003; Lutz & Huitt, 2004). He was interested in how individuals adapt to their own environment, which Piaget described as intelligence. Behaviour (adaption to the environment) is controlled via a mental process called 'schemes' that individuals use to understand the world and react to it. This adaption is affected by a biological drive – equilibration – to achieve a balance between schemes and the environment (Huitt & Hummel, 2003). His hypotheses suggest that infants are born with what he called 'reflexes' that the infant uses as an operating scheme to adapt to the environment. These reflexes are, after a while, replaced with constructed schemes (Huitt & Hummel, 2003). Furthermore, he described two main processes that are used by the individual in the attempt to adapt: assimilation and accommodation. These two processes are used consistently by a person throughout their life as they attempt to adapt to the environment in a more complex manner (Boeree, 2006; Driscoll, 2000; Huitt & Hummel, 2003).

Assimilation refers to the process of using the environment so that it can be matched in a pre-existing cognitive scheme, whereas accommodation refers to the process of adjusting cognitive structures in order to accept something from the environment (Driscoll, 2000; Huitt & Hummel, 2003). One example of assimilation is when infants use the sucking scheme when attempting to suck from a large bottle, and this action has been developed from sucking a smaller one. An example for accommodation would be when a child needs to adjust the sucking scheme developed by sucking on a dummy to one that would be successful for sucking on a bottle (Huitt & Hummel, 2003). Assimilation and accommodation work together to achieve what is known as 'equilibrium', which, as mentioned previously, refers to the balance between the structure of the mind and the environment (Boeree, 2006; Fosnot, 1996). This equilibration is not a sequential process of assimilation, conflict, then accommodation; instead, it is dynamic process of adaption, organisation, growth and change (Fosnot, 1996).

Based on the mutual relationship between the mind and the environment, Piaget identified four stages of cognitive development:

1) Sensorimotor stage (infancy): this is the stage at which intelligence is developed through motor activity without the use of symbols, and it lasts for two years after birth.
2) Pre-operational stage: at this stage, intelligence develops by the use of symbols, language use matures, and memory and imagination are developed, but thinking is done in a non-logical, non-reversible manner; this stage lasts for between year two and year seven.
3) Concrete operational stage: intelligence in this stage is demonstrated through the logical and systematic manipulation of symbols related to concrete objects. Operational thinking develops and egocentric thought diminishes, and it lasts from the age of 7 to 11.
4) Formal operational stage: the intelligence in this stage is developed through the logical use of symbols related to abstract concepts (Driscoll, 2000; Huitt & Hummel, 2003; Silverthorn, 1999).

More recently, researchers have raised doubts about Piaget's theory of homogeneous performance within a given stage. Instead, it is now suggested that performance varies greatly within each stage as it depends more on developing the language, perception, decision rules, and real-world knowledge for each individual child (Silverthorn, 1999). Many suggestions have been made with respect to the applications of this theory. For instance, Driscoll (2000) affirmed that there are three basic instructional principles related to Piaget's learning theory: 1) the learning environment should support the child's activity, for example, the environment should be designed to support an active, discovery-oriented learning; 2) learners' interactions with their peers are an essential element of cognitive development, such as peer teaching and social negotiation; and 3) instructional design should adapt strategies that make children aware of conflicts and inconsistencies in their thinking.

Moreover, Crawford (2009) emphasised that the cognitive approach focuses on encouraging the learner to adapt learning strategies that include involving the learner in the learning process, facilitating optimal processing by organising and sequencing information, and establishing learning environments that support students to be connected with previous learning materials. In addition, he suggested that cognitivists focus on how information is

received, organised, stored and retrieved by the mind. The main point is not what learners do; rather, it is about what they know and how they come to acquire what they know (Crawford, 2009).

Social cognitive learning theory

Constructivism is a learning theory that believes knowledge is constructed rather than transformed, and it perceives the learner as a person who builds and transforms his own knowledge internally or socially (Applefield et al., 2001; Hein, 1991). In this sub-section I will focus on the idea of Lev Vygotsky (1978), whose inclusion of society and culture as factors that affect cognitive development is evident in his work (Fosnot, 1996; Lutz & Huitt, 2004)

The influence of society and culture is essential to social learning theory. Vygotsky (1978) argued that all higher mental functions are developed through two main stages: first, they must be filtered through an external stage in the form of social occurrences, and second, these mental functions are then integrated into an individual's thinking through the use of language (Lutz & Huitt, 2004). For further illustration, he believed there are two levels of mental functions: elementary and higher. The first functions are naturally occurring and require no thought. These are the functions that individuals are born with, such as hunger. In contrast, the higher mental functions include the use creative and self-generated skills, such as memory, attention, thinking and language. The transition from the elementary to the higher mental functions requires the use of social and cultural tools and symbols. The culture and the society then determine what is to be learned and how it is to be learned. So he believed that society is the driving factor behind development (Lutz & Huitt, 2004).

Vygotsky (1978) referred in his theory to the idea that each individual has his own range of potential to learn; he called this the zone of proximal development (Fosnot, 1996; Lutz & Huitt, 2004), which he defined as:

> *the discrepancy between a child's actual mental age and the level that child may reach, with assistance, in solving problems (Bigge & Shermis, 2003, p. 130)*

In that zone, there are three levels of ability that are possible at any point in development: the level at which a person can perform without any guidance and help; the level that a person cannot do even with help; and the level that a person can do with help. So in this theory, the measurement of development cannot be done by a simple evaluation of a task completed by one person; rather, it is the potential of development that is important (Lutz

& Huitt, 2004). This potential moves with an individual throughout his life so, in theory, complete development cannot be reached. That is what distinguishes this theory from other stage theories (i.e. Piaget's theory) because it delineates no final destination or developmental stage (Lutz & Huitt, 2004).

With regard to the applications aspect of Vygotsky's (1978) theory, it is emphasised that we must focus on the learning process rather than the product, as well as on how a person mediates or actively modifies the stimulus situation as a part of learning (Lutz & Huitt, 2004). For instance, we must be concerned more about the process that a child utilises to solve a problem and what societal tools are employed in the process (Driscoll, 2000). The role of education, for Vygotsky, is to provide children with experiences that are within their zone of proximal development by promoting activities that challenge children but which, with sensitive adult help, can be successfully completed by children (Bigge & Shermis, 2003).

Similarities and differences between the learning theories

Although there are different views about defining the learning process among the previous learning theories, they share some definitional aspects about learning (Driscoll, 2000). First, they define learning as a continuing change in the human performance or in the performance potential. Moreover, they agree that this change in the human performance or in the performance potential must be seen as an outcome of the interaction between the learner and the world (Driscoll, 2000). In particular, behaviourism and social cognitive theory are similar in the following ways: first, they agree that experience is an essential cause for learning. Second, the concepts of reinforcement and punishment are included in both theories. Finally, they agree that feedback is a crucial factor for promoting learning (Eggen & Kauchak, 2010). Furthermore, both cognitive and social cognitive learning theories emphasise that learning is about cognitive development that occurs as a result of the interaction between the mental process and the environment (Huitt & Hummel, 2003; Lutz & Huitt, 2004).

On the other hand, it is clear that there are a number of differences among various aspects of these learning theories. First of all, the behaviourist approach utilises reinforcement to

motivate learners so they can maintain task persistence. Although the cognitive approach emphasises the importance of learner engagement, it is more interested in what is the learners are actually doing and thinking during their engagement (Dembo, 1994). Cognitive psychologists are not convinced that stimulus, responses and reinforcement adequately explain the learning process. Instead, they believe that behaviour is based on cognition and on the act of knowing about and understanding the situation in which the behaviour occurs (Dembo, 1994). Second, the behaviourist learning theory emphasises the essential role of the teacher in presenting information, whereas the cognitive perspective sees the learner as a more active participant in the learning process (Dembo, 1994).

Moreover, the behaviourist approach perceives the teacher as an executive whose primary role is to manage student behaviour and make decisions that direct the learners' activity, while the cognitivist views the teacher as a facilitator or mediator who helps the students make their choice about the right learning strategies, monitor their understanding, and make decisions for future learning (Dembo, 1994). In addition, the behaviour learning perspective is concerned about identifying what students are to learn, carefully organising the sequence of the content, and providing immediate feedback and reinforcement to the student response. From the cognitive point of view, one of the major goals is to help students to manage and control their own learning and, if the learners do not have the strategies needed for their learning, the instruction goal is to help them acquire these strategies (Dembo, 1994).

Furthermore, learning in behaviour theory is defined as a change in observable behaviour, whereas in social cognitive theory it is perceived as the change in the mental process that creates the ability to demonstrate a new behaviour (Eggen & Kauchak, 2010). Moreover, a behaviourist believes there is a one-way relationship between the environment and behaviour; that is, the environment influences behaviour, but that the opposite does not exist. Social cognitive theory is more complex; it suggests that the environment, the behaviour and personal factors, such as expectations, are interdependent, and that each of them influences the other two (Eggen & Kauchak, 2010). Finally, unlike Piaget and his learning theory, Vygotsky (1978) was interested not only in the role of inner speech on the learning of concepts but also on the role of the adult and the learners' peers as they converse, question, explain and negotiate meaning (Driscoll, 2000). In the following sub-section, I will consider which of these learning theories are more compatible with the

concept of self-regulated learning and which of them would work as a theoretical framework for my research.

Appendix B: Questionnaire

Appendix B: The Questionnaire – Part A. Motivation

The following questions ask about your motivation for and attitudes about this class. Remember, there are no right or wrong answers; just answer as accurately as possible. Use the scale below to answer the questions. If you think the statement is very true of you, circle 7; if a statement is not at all true of you, circle 1.If the statement is more or less true of you, find the number between 1 and 7 that best describes you.

1	2	3	4	5	6	7
Not at all true of me						**Very true of me**

	Not at all true of me						Very true of me
In a class like this, I prefer course material that really challenges me so I can learn new things.	1	2	3	4	5	6	7
If I study in appropriate ways, then I will be able to learn the material in this course.	1	2	3	4	5	6	7
When I take a test I think about how poorly I am doing compared with other students.	1	2	3	4	5	6	7
I think I will be able to use what I learn in this course in other courses.	1	2	3	4	5	6	7
I believe I will receive an excellent grade in this class.	1	2	3	4	5	6	7

I'm certain I can understand the most difficult material presented in the readings for this course.	1	2	3	4	5	6	7
Getting a good grade in this class is the most satisfying thing for me right now.	1	2	3	4	5	6	7
When I take a test I think about items on other parts of the test I can't answer.	1	2	3	4	5	6	7
It is my own fault if I don't learn the material in this course.	1	2	3	4	5	6	7
It is important for me to learn the course material in this class.	1	2	3	4	5	6	7
The most important thing for me right now is improving my overall grade point average, so my main concern in this class is getting a good grade.	1	2	3	4	5	6	7
I'm confident I can learn the basic concepts taught in this course.	1	2	3	4	5	6	7
If I can, I want to get better grades in this class than most of the other students.	1	2	3	4	5	6	7
When I take tests I think of the consequences of failing.	1	2	3	4	5	6	7
I'm confident I can understand the most complex material presented by the instructor in this course.	1	2	3	4	5	6	7
In a class like this, I prefer course material that arouses my curiosity, even if it is difficult to learn.	1	2	3	4	5	6	7

I am very interested in the content area of this course.	1	2	3	4	5	6	7
If I try hard enough, then I will understand the course material.	1	2	3	4	5	6	7
I have an uneasy, upset feeling when I take an exam.	1	2	3	4	5	6	7
I'm confident I can do an excellent job on the assignments and tests in this course.	1	2	3	4	5	6	7
I expect to do well in this class.	1	2	3	4	5	6	7
The most satisfying thing for me in this course is trying to understand the content as thoroughly as possible.	1	2	3	4	5	6	7
I think the course material in this class is useful for me to learn.	1	2	3	4	5	6	7
When I have the opportunity in this class, I choose course assignments that I can learn from even if they don't guarantee a good grade.	1	2	3	4	5	6	7
If I don't understand the course material, it is because I didn't try hard enough.	1	2	3	4	5	6	7
I like the subject matter of this course.	1	2	3	4	5	6	7

Understanding the subject matter of this course is very important to me.	1	2	3	4	5	6	7
I feel my heart beating fast when I take an exam.	1	2	3	4	5	6	7
I'm certain I can master the skills being taught in this class.	1	2	3	4	5	6	7
I want to do well in this class because it is important to show my ability to my family, friends, employer, or others.	1	2	3	4	5	6	7
Considering the difficulty of this course, the teacher, and my skills, I think I will do well in this class.	1	2	3	4	5	6	7

Part B. Learning Strategies

The following questions ask about your learning strategies and study skills for this class. Again, there are no right or wrong answers. Answer the questions about how you study in this class as accurately as possible. Use the same scale to answer the remaining questions. If you think the statement is very true of you, circle 7; if a statement is not at all true of you, circle 1.If the statement is more or less true of you, find the number between 1 and 7 that best describes you.

1	2	3	4	5	6	7
Not at all true of me						**Very true of me**

	Not at all true of me						**Very true of me**
When I study the readings for this course, I outline the material to help me organize my thoughts	1	2	3	4	5	6	7
During class time I often miss important points because I'm thinking of other things	1	2	3	4	5	6	7
When studying for this course, I often try to explain the material to a classmate or friend	1	2	3	4	5	6	7
I usually study in a place where I can concentrate on my course work	1	2	3	4	5	6	7

When reading for this course, I make up questions to help focus my reading	1	2	3	4	5	6	7
I often feel so lazy or bored when I study for this class that I quit before I finish what I planned to do	1	2	3	4	5	6	7
I often find myself questioning things I hear or read in this course to decide if I find them convincing	1	2	3	4	5	6	7
When I study for this class, I practice saying the material to myself over and over	1	2	3	4	5	6	7
Even if I have trouble learning the material in this class, I try to do the work on my own, without help from anyone	1	2	3	4	5	6	7
When I become confused about something I'm reading for this class, I go back and try to figure it out	1	2	3	4	5	6	7
When I study for this course, I go through the readings and my class notes and try to find the most important ideas.	1	2	3	4	5	6	7
I make good use of my study time for this course	1	2	3	4	5	6	7
If course readings are difficult to understand, I change the way I read the material	1	2	3	4	5	6	7
I try to work with other students from this class to complete the course assignments	1	2	3	4	5	6	7
When studying for this course, I read my class notes and the course readings over and over again	1	2	3	4	5	6	7

When a theory, interpretation, or conclusion is presented in class or in the readings, I try to decide if there is good supporting evidence	1	2	3	4	5	6	7
I work hard to do well in this class even if I don't like what we are doing	1	2	3	4	5	6	7
I make simple charts, diagrams, or tables to help me organize course material	1	2	3	4	5	6	7
When studying for this course, I often set aside time to discuss course material with a group of students from the class	1	2	3	4	5	6	7
I treat the course material a: a starting point and try to develop my own ideas about it.	1	2	3	4	5	6	7
I find it hard to stick to a study schedule	1	2	3	4	5	6	7
When I study for this class, I pull together information from different sources, such as lectures, readings, and discussions	1	2	3	4	5	6	7
Before I study new course material thoroughly, I often skim it to see how it is organized	1	2	3	4	5	6	7
I ask myself questions to make sure I understand the material I have been studying in this class	1	2	3	4	5	6	7
I try to change the way I study in order to fit the course requirements and the instructor's teaching style	1	2	3	4	5	6	7

I often find that I have been reading for this class but don't know what it was all about	1	2	3	4	5	6	7
I ask the instructor to clarify concepts I don't understand well	1	2	3	4	5	6	7
I memorize key words to remind me of important concepts in this class	1	2	3	4	5	6	7
When course work is difficult, I either give up or only study the easy parts	1	2	3	4	5	6	7
I try to think through a topic and decide what I am supposed to learn from it rather than just reading it over when studying for this course	1	2	3	4	5	6	7
I try to relate ideas in this subject to those in other courses whenever possible	1	2	3	4	5	6	7
When I study for this course, I go over my class notes and make an outline of important concepts	1	2	3	4	5	6	7
When reading for this class, I try to relate the material to what I already know	1	2	3	4	5	6	7
I have a regular place set aside for studying	1	2	3	4	5	6	7
I try to play around with ideas of my own related to what I am learning in this course	1	2	3	4	5	6	7
When I study for this course, I write brief summaries of the main ideas from the readings and my class notes	1	2	3	4	5	6	7

When I can't understand the material in this course, I ask another student in this class for help	1	2	3	4	5	6	7
I try to understand the material in this class by making connections between the readings and the concepts from the lectures	1	2	3	4	5	6	7
I make sure that I keep up with the weekly readings and assignments for this course	1	2	3	4	5	6	7
Whenever I read or hear an assertion or conclusion in this class, I think about possible alternatives	1	2	3	4	5	6	7
I make lists of important items for this course and memorize the lists	1	2	3	4	5	6	7
I attend this class regularly	1	2	3	4	5	6	7
Even when course materials are dull and uninteresting, I manage to keep working until I finish							
I try to identify students in this class whom I can ask for help if necessary	1	2	3	4	5	6	7
When studying for this course I try to determine which concepts I don't understand well	1	2	3	4	5	6	7

I often find that I don't spend very much time on this course because of other activities	1	2	3	4	5	6	7
When I study for this class, I set goals for myself in order to direct my activities in each study period	1	2	3	4	5	6	7
If I get confused taking notes in class, I make sure I sort it out afterwards	1	2	3	4	5	6	7
I rarely find time to review my notes or readings before an exam	1	2	3	4	5	6	7
I try to apply ideas from course readings in other class activities such as lecture and discussion	1	2	3	4	5	6	7

Appendix C: Sample of piloting for translation of the questionnaire

م	العبارة باللغة الإنجليزية	الترجمة العربية	رأي المحكم في الترجمة			التعديلات المقترحة
			موافق	غير موافق	إلى حد ما	
	Part A. Motivation	الجزء (أ): الدوافع				
	The following questions ask about your motivation for and attitudes about this class. Remember there are no right or wrong answers; just answer as accurately as possible. Use the scale below to answer the questions. If you think the statement is very true of you, circle 7; if a statement is not at all true of you, circle 1.If the statement is more or less true of you, find the number between 1 and 7 that best describes you.	الأسئلة التالية متعلقة بدوافعك واتجاهاتك نحو هذا المقرر. تذكر بأنّه ليس هناك إجابة صحيحة أو خاطئة ؛ فقط حاول أن تجيب بدقة عن الأسئلة قدر المستطاع، استخدم النطاق أدناه للإجابة على الأسئلة. إذا كنت تعتقد بأن الجملة المذكورة منطبقة عليك جداً، ضع دائرة حول الرقم 7، وإذا كانت الجملة المذكورة لا تنطبق عليك مطلقاً، ضع دائرة حول الرقم 1. وإذا كانت الجملة تتحقق فيك بدرجة معينة، حدد رقم من الأرقام ما بين 1 و 7 والتي يمكن أن تصف حالك بالنسبة للجملة بشكل أدق.				النطاق =المعيار حدد رقم =حدد رقماً
	Not at all true of me	لا ينطبق عليّ مطلقاً				
	Very true to me	ينطبق عليّ جداً				
	In a class like this, I prefer course material that really challenges me so I can learn new things.	في فصل مثل هذا، أفضل المواد التعليمية التي يكون فيها تحدي حقيقي بالنسبة لي حيث سأتعلم أشياء جديدة				"في فصل مثل هذا'، هل المقصود 'محاضرة كهذه'؟ او مقرر كهذا ؟ هكذا فهمت. في فصل مثل هذا =في فصل كهذا التي يكون فيها تحدي =تمثل تحديا

						حيث سأتعلم =لكي اتعلم (‘so’ here could mean sequence)
2	When I take a test I think about how poorly I am doing compared with other students.	عندما أقدم امتحاناً، أفكر في مستوى الضعف الذي سوف أحصل عليه مقارنة بطلاب آخرين				=حينما اقوم بتأدية امتحان، =الذي سوف اؤديه
3	I think I will be able to use what I learn in this course in other courses.	أعتقد أنّه سيكون بمقدوري توظيف ما تعلّمته في هذا المقرر في مقررات أخرى				
4	Getting a good grade in this class is the most satisfying thing for me right now.	الحصول على درجة جيدة في هذا المقرر هو أهم ما يرضيني في الوقت الحالي				هو أهم ما يرضيني=هو أهم ما يحقق رضاي، ما يمكن ان يحقق رضاي
5	When I take a test I think about items on other parts of the test I can’t answer.	عندم أقدم امتحاناً، افكر في الأسئلة الموجدة في الجزء الآخر من الامتحان و الذي لم استطع الإجابة عليه				الجزء الآخر من الامتحان=اجزاء اخرى من الامتحان
6	It is important for me to learn the course material in this class	من المهم بالنسبة لي تعلم المادة العلمية لهذا المقرر				

م	العبارة باللغة الإنجليزية	الترجمة العربية	رأي المحكم في الترجمة			التعديلات المقترحة
			موافق	غير موافق	إلى حد ما	
	The most important thing for me right now is improving my overall grade point average, so my main concern in this class is getting a good grade	الشيء الأكثر أهمية بالنسبة لي الآن هو تحسين معدلي التراكمي، لذلك فما يهمني في هذا المقرر هو الحصول على درجة جيدة				

إذا كنت استطيع=لو امكنني ذلك فأرغب=فرغبتي هي الحصول، فاني ارغب				إذا كنت استطيع، فأرغب في الحصول على درجة في هذا المقرر أفضل من معظم الطلاب الآخرين	If I can, I want to get better grades in this class than most of the other students	
				عندما أقدم امتحاناً، أفكر في عواقب الفشل	When I take tests I think of the consequences of failing	
مثل هذا=مقرر كهذا				في مقرر مثل هذا، أفضل المادة التعليمية التي تثير فضولي، حتى ولو كانت مما يصعب تعلّمه	In a class like this, I prefer course material that arouses my curiosity, even if it is difficult to learn	1
				أنا مهتم جداً في مجال المحتوى العلمي لهذا المقرر.	I am very interested in the content area of this course	1
لدي شعور بالقلق =اشعر بالقلق والضيق عندما أقدم امتحاناً				لدي شعور بالقلق والضيق عندما أقدم امتحاناً	I have an uneasy, upset feeling when I take an exam	1
				الشيء الأكثر إرضاءً بالنسبة لي في هذا المقرر هو محاولة فهم المادة العلمية على أكمل وجه ممكن	The most satisfying thing for me in this course is trying to understand the content as thoroughly as possible	1
				أعتقد بأنّ تعلّم المادة العلمية للمقرر مفيد بالنسبة لي	I think the course material in this class is useful for me to learn.	1
				متى ما كانت لدي الفرصة في هذا المقرر، فسوف أختار الواجبات التي يمكنني أن أتعلّم	When I have the opportunity in this class, I choose course assignments that I can learn from even if they don't guarantee a good	1

				منها حتى لو لم أضمن الحصول على درجة جيدة	grade	
قد تكون ملتبسة كلمة 'الموضوعي' لذا ارى الترجمة ان تكون =أحب مواضيع هذا المقرر				أحب الجانب الموضوعي للمقرر	I like the subject matter of this course	1
فهم مواضيع هذا المقرر مهم بالنسبة لي				فهم الجانب الموضوعي للمقرر مهم بالنسبة لي	Understanding the subject matter of this course is very important to me	1
				أشعر بسرعة نبضات قلبي عندما أقدم امتحاناً	I feel my heart beating fast when I take an exam	1
=لإظهار مدى قدرتي				اريد على أؤدي بشكل جيد في هذا المقرر لإظهار قدرتي لعائلتي وأصدقائي ومسؤول العمل وغيرهم	I want to do well in this class because it is important to show my ability to my family, friends, employer, or others	1

م	العبارة باللغة الإنجليزية	الترجمة العربية	رأي المحكم في الترجمة			التعديلات المقترحة
			موافق	غير موافق	إلى حد ما	
	Part B. Learning Strategies	الجزء (ب): استراتيجيات التعلّم				
	The following questions ask about your learning strategies and study skills for this class. Again, there are no right or wrong answers. Answer the questions about how you study in this class as accurately as possible. Use the same scale to answer the remaining questions. If you think the statement is very true of you, circle 7; if a statement is not at all true of you, circle 1.If the statement is more or less true of you, find the number between 1 and 7 that best describes you.	الأسئلة التالية متعلقة باستراتيجيات التعلم ومهارات الدراسة التي تمارسها خلال دراستك لهذا المقرر. مرة أخرى، تذكر بأنّه ليس هناك إجابة صحيحة أو خاطئة. أجب بدقة عن الأسئلة المتعلقة بدراستك في هذا المقرر قدر المستطاع. استعمل ذات النطاق الذي تم استخدامه في القسم السابق للإجابة على الأسئلة المتبقية. إذا كنت تعتقد بأن الجملة المذكورة منطبقة عليك جداً، ضع دائرة حول الرقم 7، وإذا كانت الجملة المذكورة لا تنطبق عليك مطلقاً، ضع دائرة حول الرقم 1. وإذا كانت الجملة تتحقق فيك بدرجة معينة، حدد رقم من الأرقام ما بين 1 و 7 والتي يمكن أن تصف حالك بالنسبة للجملة بشكل أدق.				=حدد رقما
20.	I often find myself questioning things I hear or read in this course to decide if I find them convincing	غالباً ما أتساءل عن الأشياء التي أسمعها أو أقرأها في هذا المقرر من حيث مدى قناعتي بها				=لأحدد مدى اقتناعي بها

				عندما أدرس لهذا المقرر، فإنّي اتعلّم المادة العلمية من خلال تكراراها على نفسي مرة بعد أخرى	When I study for this class, I practice saying the material to myself over and over	21.
				عندما أدرس لهذا المقرر، أقرأ التعليقات التي كتبتها في القاعة بالإضافة إلى المادة المخصصة للقراءة مرة بعد أخرى	When studying for this course, I read my class notes and the course readings over and over again	22.
				عندما يتم عرض نظرية أو تفسير أو استنتاج معين خلال المحاضرة أو خلال المادة المخصصة للقراءة، أحاول أن أقرر ما إذا كانت هناك أدلة وبراهين كافية لتأييدها	When a theory, interpretation, or conclusion is presented in class or in the readings, I try to decide if there is good supporting evidence	23.
				أتعامل مع المادة العلمية للمقرر كنقطة بداية، ثم أحاول تطوير مفاهيمي الخاصة عن تلك المادة.	I treat the course material as a starting point and try to develop my own ideas about it.	24.

التعديلات المقترحة	رأي المحكم في الترجمة			الترجمة العربية	العبارة باللغة الإنجليزية	م
	إلى حد ما	غير موافق	موافق			
				عندما أذاكر لهذا المقرر، فإنّي أجمع المعلومات من مصادر مختلفة، مثل: المحاضرات، القراءات المتعلقة بالمقرر، والمناقشات.	When I study for this class, I pull together information from different sources, such as lectures, readings, and discussions	25.
				أحفظ الكلمات الرئيسة لتذكرني بالمفاهيم الأساسية في هذا المقرر	I memorize key words to remind me of important concepts in this class	26.

				أحاول ربط المفاهيم التي أدرسها في هذه المادة بمفاهيم أخرى درستها في مواد أخرى بقدر المستطاع	I try to relate ideas in this subject to those in other courses whenever possible	27.
التي تتوفر لدي مسبقاً =المتوفرة التي تتوفر لدي مسبقاً				عندما أقرأ لهذا المقرر، أحاول ربط المادة التعليمية بالمعارف التي تتوفر لدي مسبقاً	When reading for this class, I try to relate the material to what I already know	28.
				أحاول أن أصوغ بأسلوبي الخاص أفكار ذات علاقة بما أدرسه في هذا المقرر	I try to play around with ideas of my own related to what I am learning in this course	29.
				عندما أذاكر لهذه المادة، أكتب ملخصات مختصرة للمفاهيم الأساسية من خلال القراءة وكذلك المذكرات التي أسجلها في قاعة الدرس	When I study for this course, I write brief summaries of the main ideas from the readings and my class notes	30.
				أحاول فهم المادة العلمية للمقرر من خلال عمل روابط بين ما أقرأه وبين المفاهيم الواردة في المحاضرات	I try to understand the material in this class by making connections between the readings and the concepts from the lectures	31.
تأكيدا =اثباتا				كلما قرأت أو سمعت تأكيدا أو استنتاجاً حول موضوع معين في هذا المقرر، أفكر ما إذا كان هناك أي بدائل أو احتمالات أخرى	Whenever I read or hear an assertion or conclusion in this class, I think about possible alternatives	32.
				أعد قائمة بالعناصر الهامة لهذا المقرر ومن ثم أقوم بحفظ تلك القائمة	I make lists of important items for this course and memorize the lists	33.

34.	I try to apply ideas from course readings in other class activities such as lecture and discussion	أحاول توظيف المفاهيم الواردة في مواد القراءة لهذا المقرر في الأنشطة الأخرى للمقرر مثل المحاضرة والمناقشة				توظيف =تطبيق =الأنشطة الأخرى للمقرر ذاته

Appendix D: Sample of the questionnaire

KING KHALID UNIVERSITY

UNIVERSITY OF Southampton

الأساليب التي يستخدمها الطلاب لتوجيه تعلّمهم الذاتي في بيئات التعلّم الالكتروني المدمج بجامعة الملك خالد ... دراسة استكشافية

استبيان استراتيجيات الدوافع والتعلّم

الباحث

سامي بن سفر الشهراني

باحث دكتوراة في تقنية اتصال المعلومات في التربية بجامعة ساوثهامبتون في بريطانيا

استبيان استراتيجيات الدوافع والتعلّم

عزيزي الطالب

السلام عليكم ورحمة الله وبركاته

هذه الدراسة تجرى لبحث موضوع بعنوان " الأساليب التي يستخدمها الطلاب لتوجيه تعلّمهم الذاتي في بيئات التعلّم الالكتروني المدمج بجامعة الملك خالد"، وهو جزء من متطلبات استكمال رسالة بحث لنيل درجة الدكتوراه في تقنية اتصال المعلومات في التربية من جامعة ساوثهامبتون في المملكة المتحدة.

وهي دراسة استكشافية تهدف إلى التعرف على أنماط السلوك التعليمي الذي يمارسه الطلاب في بيئات التعلّم الالكتروني المدمج، من خلال التعرف على ممارسات الطلاب في ثلاثة جوانب رئيسة : الاستراتيجيات الإدراكية وفوق الإدراكية- واستراتيجيات الدوافع التعليمية- واستراتيجيات التعلّم المتبعة. يقصد بالتعلّم الالكتروني المدمج (بحسب القواعد المنظمة للتعلّم الالكتروني في جامعة الملك خالد) : هو أحد مستويات استخدام التعلم الإلكتروني في الجامعة تستبدل فيه نسبة محددة من الحضور داخل القاعات بحضور وأنشطة إلكترونية على موقع المقرر و باستخدام أنظمة و أدوات و بيئة التعلم الإلكتروني.

ونظراً لأهمية وجهة نظرك في توصيف جهدك الذاتي في توجيه عملية تعلّمك في بيئات التعلّم الالكتروني المدمج كأحد طلاب جامعة الملك خالد الدارسين ضمن تلك البيئات الاكترونية من خلال هذا المقرر ، فإنّ الباحث سوف يقوم بتطبيق استبانة تهدف إلى الإجابة على اسئلة البحث الرئيسة، والتي آمل منك التكرم بتعبئتها مشكوراً.

هذه الأسئلة تحتوي على عدد من الأسئلة المقسمة على جزأين: (أ) الدوافع التعليمية: وهي عبارة عن أسئلة تتعلق بدوافعك واتجاهاتك نحو هذا المقرر. (ب) استراتيجيات التعلّم: وهي عبارة عن أسئلة تتعلق باستراتيجيات التعلم ومهارات الدراسة التي تمارسها خلال دراستك لهذا المقرر.

وأود التأكيد بأنه ليس هناك إجابة صحيحة أو خاطئة. والمطلوب هو التكرم بالإجابة عن الأسئلة بدقة قدر المستطاع واستعمال النطاق الموجود في الجدول المرفق للإجابة على الأسئلة . إذا كنت تعتقد بأن الجملة المذكورة منطبقة عليك جداً، ضع دائرة حول الرقم ٧، وإذا كانت الجملة المذكورة لا تنطبق عليك مطلقاً، ضع دائرة حول الرقم ١. وإذا كانت الجملة تتحقق فيك بدرجة معينة، حدد رقماً من الأرقام ما بين ١ و ٧ والتي يمكن أن تصف حالك بالنسبة للجملة بشكل أدق.

وختاماً فإنّي أود التأكيد بأنّ البيانات سوف تستخدم فقط لأغراض بحثية، وحيث أنه لا يوجد أي أسئلة متعلّقة بتحديد هوية أو شخصية الطالب أو الطالبة المشارك/ المشاركة بتعبئة الاستبانة فإنّي أؤكد ضمان خصوصية وسرية الإجابات.
كما أود التأكيد بأنّ مشاركتك -وفقك الله- في هذه الاستبانة هو اختياري مع حفظ كامل حقك في الانسحاب وعدم تكملة الاستبانة في أي لحظة. كما أنّ تعبئة الاستبانة ستستغرق ما بين ٢٠-٢٥ دقيقة.
إنّ مساهمتك في تعبئة الاستبانة سوف تفيد الباحث ، كما أنه يتوقع أن يكون لها الأثر في فهم أنماط السلوك التعليمي الذي يقوم به عينة من طلاب جامعة الملك خالد لتوجيه عملية تعلّمهم الذاتي في بيئات التعلّم المدمج بما يتيح للباحث الفرصة لتقديم التوصيات العلمية لتطوير كفاءة الأداء في بيئات التعلّم الالكتروني المدمج. وأخيراً فأن مشاركتك قد تتيح لك الفرصة للتعرف على خصائص التعلّم المتوفرة لديك.

اشكرك شكراً جزيلاً على دعمك بالمشاركة في تعبئة هذه الاستبانة التي ستساهم في إثراء وتطوير البحث العلمي في مجال التعليم المدمج.
لأي أسئلة واستفسارات عن الاستبانة، يسعدني التواصل معك من خلال العنوان البريدي التالي:

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استبيان استراتيجيات الدوافع والتعلّم

القسم الأول (أ): الدوافع

الأسئلة التالية متعلقة بدوافعك واتجاهاتك نحو هذا المقرر. تذكر بأنه ليس هناك إجابة صحيحة أو خاطئة ؛ فقط حاول أن تجيب بدقة عن الأسئلة قدر المستطاع، استخدم المعيار أدناه للإجابة على الأسئلة. إذا كنت تعتقد بأن الجملة المذكورة منطبقة عليك جداً، ضع دائرة حول الرقم (٧)، وإذا كانت الجملة المذكورة لا تنطبق عليك مطلقاً، ضع دائرة حول الرقم (١). وإذا كانت الجملة تتحقق فيك بدرجة معينة، حدد رقماً من الأرقام ما بين (١) و (٧) والتي يمكن أن تصف حالك بالنسبة للجملة بشكل أدق.

	١ لا ينطبق عليّ مطلقاً	٢	٣	٤	٥	٦	٧ ينطبق عليّ جداً
١. في مقرر مثل هذا، أفضل المواد التعليمية التي تمثل تحدياً حقيقياً بالنسبة لي لكي أتعلم أشياء جديدة	١	٢	٣	٤	٥	٦	٧
٢. إذا درست بالطرق المناسبة، سوف أكون قادراً على تعلّم المادة العلمية لهذا المقرر	١	٢	٣	٤	٥	٦	٧
٣. عندما أقدم امتحاناً، أفكر في مستوى الضعف الذي سوف أؤديه مقارنة بطلاب آخرين	١	٢	٣	٤	٥	٦	٧
٤. أعتقد أنه سيكون بمقدوري توظيف ما تعلّمته في هذا المقرر في مقررات أخرى	١	٢	٣	٤	٥	٦	٧
٥. أعتقد بأني سوف أحصل على درجة متميزة في هذا المقرر	١	٢	٣	٤	٥	٦	٧
٦. أنا واثق من قدرتي على فهم أصعب المواد التعليمية المقدمة عن طريق القراءة في هذا المقرر	١	٢	٣	٤	٥	٦	٧
٧. الحصول على درجة جيدة في هذا المقرر هو أهم ما يمكن أن يحقق رضائي	١	٢	٣	٤	٥	٦	٧
٨. عندم أقدم امتحاناً، افكر في الأسئلة الموجودة في الأجزاء الأخرى من الامتحان و التي لم استطع الاجابة عليه	١	٢	٣	٤	٥	٦	٧
٩. أنها مسؤوليتي الشخصية حين لا أتعلم المحتوى التعليمي لهذا المقرر	١	٢	٣	٤	٥	٦	٧
١٠. من المهم بالنسبة لي تعلم المادة العلمية لهذا المقرر	١	٢	٣	٤	٥	٦	٧
١١. الشيء الأكثر أهمية بالنسبة لي الآن هو تحسين معدلي التراكمي، لذلك فما يهمني في هذا المقرر هو الحصول على درجة جيدة.	١	٢	٣	٤	٥	٦	٧
١٢. أنا واثق من قدرتي على تعلّم المفاهيم الأساسية التي تدرّس في هذا المقرر	١	٢	٣	٤	٥	٦	٧
١٣. لو أمكنني ذلك ، فاني ارغب في الحصول على درجة في هذا المقرر أفضل من معظم الطلاب الآخرين	١	٢	٣	٤	٥	٦	٧

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	١ لا ينطبق عليّ مطلقاً	٢	٣	٤	٥	٦	٧ ينطبق عليّ جداً
١٤. عندما أقدم امتحاناً، أفكر في عواقب الفشل	١	٢	٣	٤	٥	٦	٧
١٥. أنا واثق من قدرتي على فهم المواد الأكثر تعقيداً والتي يقدمها المعلم في هذا المقرر	١	٢	٣	٤	٥	٦	٧
١٦. في مقرر كهذا، أفضّل المادة التعليمية التي تثير فضولي، حتى ولو كانت مما يصعب تعلّمه.	١	٢	٣	٤	٥	٦	٧
١٧. أنا مهتم جداً في مجال المحتوى العلمي لهذا المقرر.	١	٢	٣	٤	٥	٦	٧
١٨. إذا حاولت بجهد كافٍ، فسوف أفهم المادة العلمية للمقرر.	١	٢	٣	٤	٥	٦	٧
١٩. اشعر بالقلق والضيق عندما أقدم امتحاناً	١	٢	٣	٤	٥	٦	٧
٢٠. أنا واثق بأني أستطيع القيام بعمل مميز في الواجبات والامتحانات المتعلقة بهذا المقرر	١	٢	٣	٤	٥	٦	٧
٢١. أتوقع أن يكون أدائي جيداً في هذا المقرر	١	٢	٣	٤	٥	٦	٧
٢٢. الشيء الأكثر إرضاءً بالنسبة لي في هذا المقرر هو محاولة فهم المادة العلمية على أكمل وجه ممكن	١	٢	٣	٤	٥	٦	٧
٢٣. أعتقد بأنّ تعلّم المادة العلمية للمقرر مفيد بالنسبة لي	١	٢	٣	٤	٥	٦	٧
٢٤. متى ما كانت لدي الفرصة في هذا المقرر، فسوف أختار الواجبات التي يمكنني أن أتعلّم منها حتى لو لم أضمن الحصول على درجة جيدة	١	٢	٣	٤	٥	٦	٧
٢٥. إذا لم أستطع فهم المادة العلمية للمقرر، فالسبب لأني لم أحاول بالجهد الكافي	١	٢	٣	٤	٥	٦	٧
٢٦. أحب مواضيع هذا المقرر	١	٢	٣	٤	٥	٦	٧
٢٧. فهم مواضيع هذا المقرر مهم بالنسبة لي	١	٢	٣	٤	٥	٦	٧
٢٨. أشعر بسرعة نبضات قلبي عندما أقدم امتحاناً	١	٢	٣	٤	٥	٦	٧
٢٩. متأكد من قدرتي على إتقان المهارات التي تدرس في هذا المقرر	١	٢	٣	٤	٥	٦	٧
٣٠. أريد أن يكون أدائي جيدا في هذا المقرر كي أظهر قدرتي لعائلتي وأصدقائي ومسؤول العمل وغيرهم	١	٢	٣	٤	٥	٦	٧
٣١. مع اعتبار صعوبة المقرر، والمعلم، ومهاراتي الحالية، أعتقد بأني سأؤدي بشكل جيد في هذا المقرر	١	٢	٣	٤	٥	٦	٧

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القسم (ب): استراتيجيات التعلّم

الأسئلة التالية متعلقة باستراتيجيات التعلم ومهارات الدراسة التي تمارسها خلال دراستك لهذا المقرر. مرة أخرى، تذكر بأنه ليس هناك إجابة صحيحة أو خاطئة. أجب بدقة عن الأسئلة المتعلقة بدراستك في هذا المقرر قدر المستطاع. استعمل ذات المعيار الذي تم استخدامه في القسم السابق للإجابة على الأسئلة المتبقية. إذا كنت تعتقد بأن الجملة المذكورة منطبقة عليك جداً، ضع دائرة حول الرقم (٧)، وإذا كانت الجملة المذكورة لا تنطبق عليك مطلقاً، ضع دائرة حول الرقم (١) وإذا كانت الجملة تتحقق فيك بدرجة معينة، حدد رقماً من الأرقام ما بين (١) و (٧) والتي يمكن أن تصف حالك بالنسبة للجملة بشكل أدق.

	١ لا ينطبق عليّ مطلقاً	٢	٣	٤	٥	٦	٧ ينطبق عليّ جداً
٣٢. عندما أدرس المحتوى المخصص للقراءة في هذا المقرر، ألخص المادة العلمية لأجل أن يساعدني ذلك في تنظيم تفكيري	١	٢	٣	٤	٥	٦	٧
٣٣. خلال المحاضرة الدراسية، غالباً ما تفوت عليّ نقاط هامة بسبب تفكيري في أمور أخرى	١	٢	٣	٤	٥	٦	٧
٣٤. عندما أدرس هذا المقرر، فإني غالباً ما أقوم بشرح المادة العلمية لأحد زملائي في القاعة أو أحد أصدقائي	١	٢	٣	٤	٥	٦	٧
٣٥. عادة ما أدرس في المكان الذي استطيع معه التركيز على واجباتي الدراسية	١	٢	٣	٤	٥	٦	٧
٣٦. عندما أقرأ لهذا المقرر، عادةً ما أضع اسئلة لمساعدتي على التركيز خلال عملية القراءة	١	٢	٣	٤	٥	٦	٧
٣٧. غالباً ما أشعر بالكسل والملل عندما أدرس لهذا المقرر حتى إنّي أنهي المذاكرة قبل أن أنهي ما كنت قد خططت لإنجازه	١	٢	٣	٤	٥	٦	٧
٣٨. غالباً ما أتساءل عن الأشياء التي أسمعها أو أقرأها في هذا المقرر كي أقرر ما إذا كانت مقنعة	١	٢	٣	٤	٥	٦	٧
٣٩. عندما أدرس لهذا المقرر، أقرأ التعليقات التي كتبتها في القاعة بالإضافة إلى المادة المخصصة للقراءة مرة بعد أخرى	١	٢	٣	٤	٥	٦	٧
٤٠. حتى عندما أجد صعوبة في تعلّم المادة العلمية لهذا المقرر، فإني أحاول القيام بالمهمة لوحدي، دون طلب المساعدة من أحد	١	٢	٣	٤	٥	٦	٧
٤١. عندما تختلط عليّ بعض المعلومات أثناء قراءتي لهذا المقرر، فإني أراجع ما قرأته مرة أخرى بهدف حل الإشكال	١	٢	٣	٤	٥	٦	٧
٤٢. عندما أدرس لهذا المقرر، فإني أحاول تحديد المفاهيم الأكثر أهمية من خلال مراجعة ما قرأت حول المقرر وكذلك المذكرات التي كتبتها أثناء المحاضرة	١	٢	٣	٤	٥	٦	٧
٤٣. أستخدم الوقت المخصص لدراسة هذا المقرر بشكل جيد	١	٢	٣	٤	٥	٦	٧

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	١ لا ينطبق عليّ مطلقاً	٢	٣	٤	٥	٦	٧ ينطبق عليّ جداً
٤٤. إذا وجدت أنّ الجزء المخصص للقراءة من هذا المقرر صعب، فإنّي أغير من طريقتي في قراءة المادة العلمية	١	٢	٣	٤	٥	٦	٧
٤٥. أحاول العمل مع الطلاب الآخرين في هذه القاعة عند الإعداد لواجبات المقرر	١	٢	٣	٤	٥	٦	٧
٤٦. عندما أدرس لهذا المقرر، أقرأ التعليقات التي كتبتها في القاعة بالإضافة إلى المادة المخصصة للقراءة مرة بعد أخرى	١	٢	٣	٤	٥	٦	٧
٤٧. عندما يتم عرض نظرية أو تفسير أو استنتاج معين خلال المحاضرة أو خلال المادة المخصصة للقراءة، أحاول أن أقرر ما إذا كانت هناك أدلة وبراهين كافية لتأييدها	١	٢	٣	٤	٥	٦	٧
٤٨. أعمل بجد من أجل التميز في هذا المقرر حتى ولو لم أكن محباً لما نقوم به	١	٢	٣	٤	٥	٦	٧
٤٩. أثناء المذاكرة، أقوم بعمل مخططات مبسطة ورسوم بيانية وجداول تساعدني على تنظيم المادة العلمية للمقرر	١	٢	٣	٤	٥	٦	٧
٥٠. عندما أدرس لهذا المقرر، فغالباً ما أخصص وقت جانبي لمناقشة المادة العلمية للمقرر مع مجموعة من الطلاب في القاعة	١	٢	٣	٤	٥	٦	٧
٥١. أتعامل مع المادة العلمية للمقرر كنقطة بداية، ثم أحاول تطوير مفاهيمي الخاصة عن تلك المادة.	١	٢	٣	٤	٥	٦	٧
٥٢. أجد صعوبة في التقيد بجدول للمذاكرة	١	٢	٣	٤	٥	٦	٧
٥٣. عندما أذاكر لهذا المقرر، فإنّي أجمع المعلومات من مصادر مختلفة، مثل: المحاضرات، القراءات المتعلقة بالمقرر، والمناقشات	١	٢	٣	٤	٥	٦	٧
٥٤. قبل مذاكرتي لمحتوى مادة تعليمية لهذا المقرر، غالباً ما أتصفح المحتوى بشكل سريع للتعرف على طريقة تنظيمها	١	٢	٣	٤	٥	٦	٧
٥٥. أوجه لنفسي أسئلة للتأكد من مدى فهمي للمادة التعليمية التي أذاكرها في هذا المقرر	١	٢	٣	٤	٥	٦	٧
٥٦. أحاول تغيير طريقة مذاكرتي من أجل التأقلم مع متطلبات المقرر، وكذلك التأقلم مع أسلوب التدريس المتبعة	١	٢	٣	٤	٥	٦	٧
٥٧. غالباً ما أكتشف بأني أقرأ مواد تعليمية لهذا المقرر ولا أستطيع فهم شيء على الإطلاق	١	٢	٣	٤	٥	٦	٧
٥٨. أطلب من مدرس المقرر توضيح المفاهيم التي لا أفهمها جيداً	١	٢	٣	٤	٥	٦	٧
٥٩. أحفظ الكلمات الرئيسة لتذكرني بالمفاهيم الأساسية في هذا المقرر	١	٢	٣	٤	٥	٦	٧

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	١ لا ينطبق عليّ مطلقاً	٢	٣	٤	٥	٦	٧ ينطبق عليّ جداً
٦٠. عندما أجد واجب المقرر صعباً، فإنني عادة ما أستسلم أو أكتفي بحل الجزء الأسهل منها	١	٢	٣	٤	٥	٦	٧
٦١. عندما أذاكر لهذه المادة، أحاول التفكير من خلال الموضوع وأقرر ما الذي يجب علي فعله بدلاً من مجرد قراءة محتوى المادة التعليمية كاملة	١	٢	٣	٤	٥	٦	٧
٦٢. أحاول ربط المفاهيم التي أدرسها في هذه المادة بمفاهيم أخرى درستها في مواد أخرى بقدر المستطاع	١	٢	٣	٤	٥	٦	٧
٦٣. عندما أذاكر لهذه المادة، أراجع المذكرات التي أخذتها في القاعة الدراسية واستخرج منها المفاهيم الأساسية	١	٢	٣	٤	٥	٦	٧
٦٤. عندما أقرأ لهذا المقرر، أحاول ربط المادة التعليمية بالمعارف المتوفرة لدي مسبقاً	١	٢	٣	٤	٥	٦	٧
٦٥. لدي مكان مخصص للمذاكرة	١	٢	٣	٤	٥	٦	٧
٦٦. أحاول أن أصوغ بأسلوبي الخاص أفكار ذات علاقة بما أدرسه في هذا المقرر	١	٢	٣	٤	٥	٦	٧
٦٧. عندما أذاكر لهذه المادة، أكتب ملخصات مختصرة للمفاهيم الأساسية من خلال القراءة وكذلك المذكرات التي أسجلها في قاعة الدرس	١	٢	٣	٤	٥	٦	٧
٦٨. عندما لا أستطيع فهم المادة العلمية في هذا المقرر، فإنني أسأل أحد الطلاب في القاعة للمساعدة	١	٢	٣	٤	٥	٦	٧
٦٩. أحاول فهم المادة العلمية للمقرر من خلال عمل روابط بين ما أقرأه وبين المفاهيم الواردة في المحاضرات	١	٢	٣	٤	٥	٦	٧
٧٠. أحرص على مواكبة القراءات والواجبات الأسبوعية لهذا المقرر	١	٢	٣	٤	٥	٦	٧
٧١. كلما قرأت أو سمعت إثباتاً أو استنتاجاً حول موضوع معين في هذا المقرر، أفكر ما إذا كان هناك أي بدائل ممكنة	١	٢	٣	٤	٥	٦	٧
٧٢. أعد قائمة بالعناصر الهامة لهذا المقرر ومن ثم أقوم بحفظ تلك القائمة	١	٢	٣	٤	٥	٦	٧
٧٣. أحضر محاضرات هذا المقرر بشكل منتظم	١	٢	٣	٤	٥	٦	٧
٧٤. حتى حينما تكون المادة التعليمية مملة ورتيبة، أستطيع الاستمرار في المذاكرة حتى النهاية	١	٢	٣	٤	٥	٦	٧
٧٥. أستطيع تحديد الطلاب الذين يمكنني طلب المساعدة منهم عند الحاجة في هذا المقرر	١	٢	٣	٤	٥	٦	٧

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	١ لا ينطبق عليّ مطلقاً	٢	٣	٤	٥	٦	٧ ينطبق عليّ جداً
٧٦. عندما أذاكر لهذا المقرر، أحاول تحديد المفاهيم التي لا أفهمها جيداً	١	٢	٣	٤	٥	٦	٧
٧٧. غالباً ما أكتشف بأني لا أبذل الوقت الكافي لمذاكرة هذا المقرر بسبب الانشغال بأنشطة أخرى	١	٢	٣	٤	٥	٦	٧
٧٨. عندما أذاكر لهذا المقرر، أقوم بوضع أهداف تساعدني على توجيه أنشطتي الدراسية خلال كل فترة من فترات المذاكرة	١	٢	٣	٤	٥	٦	٧
٧٩. عندما أشعر بالتشويش أثناء تسجيل مذكراتي في القاعة الدراسية، أتأكد من معالجة سبب التشويش في المستقبل	١	٢	٣	٤	٥	٦	٧
٨٠. نادراً ما أجد الوقت الكافي لمراجعة مذكراتي الدراسية أو قراءاتي السابقة قبل الامتحان	١	٢	٣	٤	٥	٦	٧
٨١. أحاول تطبيق المفاهيم الواردة في مواد القراءة لهذا المقرر في الأنشطة الأخرى للمقرر مثل المحاضرة والمناقشة	١	٢	٣	٤	٥	٦	٧

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Appendix E: Coding the items of the MSLQ in SPSS

Motivation scales

Component	N	Theme	N	Item	Label
Value	1	Intrinsic Goal orientation	1	In a class like this, I prefer course material that really challenges me so I can learn new things	VL_IN_GO_1
			16	In a class like this, I prefer course material that arouses my curiosity, even if it is difficult to learn	VL_IN_GO_16
			22	The most satisfying thing for me in this course is trying to understand the content as thoroughly as possible	VL_IN_GO_22
			24	When I have the opportunity in this class, I choose course assignments that I can learn from even if they don't guarantee a good grade	VL_IN_GO_24
	2	Extrinsic Goal orientation	7	Getting a good grade in this class is the most satisfying thing for me right now	VL_EX_GO_7
			11	The most important thing for me right now is improving my overall grade point average, so my main concern in this class is getting a good grade	VL_EX_GO_11
			13	If I can, I want to get better grades in this class than most of the other students	VL_EX_GO_13
			30	I want to do well in this class because it is important to show my ability to my family, friends, employer, or others	VL_EX_GO_30
	3	Task Value	4	I think I will be able to use what I learn in this course in other Courses	VL_TA_4
			10	It is important for me to learn the course material in this class	VL_TA_10
			17	I am very interested in the content area of this course	VL_TA_17
			23	I think the course material in this class is useful for me to learn	VL_TA_23
			26	I like the subject matter of this course	VL_TA_26
			27	Understanding the subject matter of this course is very important to me	VL_TA_27

Motivation scales

Component	N	Theme	N	Item	Label
Expectancy Component	1	Control of Learning Beliefs	2	If I study in appropriate ways, then I will be able to learn the material in this course	EX_CN_LB_2
			9	It is my own fault if I don't learn the material in this course	EX_CN_LB_9
			18	If I try hard enough, then I will understand the course material	EX_CN_LB_18
			25	If I don't understand the course material, it is because I didn't try hard enough	EX_CN_LB_25
	2	Self-efficacy for learning and performance	5	I believe I will receive an excellent grade in this class	EX_SFE_LP_5
			6	I'm certain I can understand the most difficult material presented in the readings for this course	EX_SFE_LP_6
			12	I'm confident I can understand the basic concepts taught in this Course	EX_SFE_LP_12
			15	I'm confident I can understand the most complex material presented by the instructor in this course	EX_SFE_LP_15
			20	I'm confident I can do an excellent job on the assignments and tests in this course	EX_SFE_LP_20
			21	I expect to do well in this class	EX_SFE_LP_21
			29	I'm certain I can master the skills being taught in this class	EX_SFE_LP_29
			31	Considering the difficulty of this course, the teacher, and my skills, I think I will do well in this class	EX_SFE_LP_31
Affective Components	1	Test anxiety	3	When I take a test I think about how poorly I am doing compared with other students	AF_TE_ENX_3
			8	When I take a test I think about items on other parts of the test I can't answer	AF_TE_ENX_8
			14	When I take tests I think of the consequences of failing	AF_TE_ENX_14
			19	I have an uneasy, upset feeling when I take an exam	AF_TE_ENX_19
			28	I feel my heart beating fast when I take an exam	AF_TE_ENX_28

Cognitive and metacognitive scales

Component	N	Theme	N	Item	Label
Cognitive and metacognitive	1	Rehearsal	39	When I study for this class, I practice saying the material to myself over and over	CG_ME_RH_39
			46	When studying for this class, I read my class notes and the course readings over and over again	CG_ME_RH_46
			59	I memorize key words to remind me of important concepts in this class	CG_ME_RH_59
			72	I make lists of important terms for this course and memorize the lists	CG_ME_RH_72
	2	Elaboration	53	When I study for this class, I pull together information from different sources, such as lectures, readings, and discussions	CG_ME_EB_53
			62	I try to relate ideas in this subject to those in other courses whenever possible	CG_ME_EB_62
			64	When reading for this class, I try to relate the material to what I already know	CG_ME_EB_64
			67	When I study for this course, I write brief summaries of the main ideas from the readings and the concepts from the lectures	CG_ME_EB_67
			69	I try to understand the material in this class by making connections between the readings and the concepts from the lectures	CG_ME_EB_69
			81	I try to apply ideas from course readings in other class activities such as lecture and discussion	CG_ME_EB_81
	3	Organisation	32	When I study the readings for this course, I outline the material to help me organize my thoughts	CG_ME_OR_32
			42	When I study for this course, I go through the readings and my class notes and try to find the most important ideas	CG_ME_OR_42
			49	I make simple charts, diagrams, or tables to help me organize course material	CG_ME_OR_49
			63	When I study for this course, I go over my class notes and make an outline of important concepts	CG_ME_OR_63

Cognitive and metacognitive scales

Component	N	Theme	N	Item	Label
Cognitive and metacognitive	4	Critical Thinking	38	I often find myself questioning things I hear or read in this course to decide if I find them convincing	CG_ME_CRT_38
			47	When a theory, interpretation, or conclusion is presented in class or in the readings, I try to decide if there is good supporting evidence	CG_ME_CRT_47
			51	I treat the course material as a starting point and try to develop my own ideas about it	CG_ME_CRT_51
			66	I try to play around with ideas of my own related to what I am learning in this course	CG_ME_CRT_66
			71	Whenever I read or hear an assertion or conclusion in this class, I think about possible alternatives	CG_ME_CRT_71
	5	Metacognitive and Self-regulation	33	During class time I often miss important points because I'm thinking of other things	CG_ME_MSR_33
			36	When reading for this course, I make up questions to help focus my reading	CG_ME_MSR_36
			41	When I become confused about something I'm reading for this class, I go back and try to figure it out	CG_ME_MSR_41
			44	If course materials are difficult to understand, I change the way I read the material	CG_ME_MSR_44
			54	Before I study new course material thoroughly, I often skim it to see how it is organized	CG_ME_MSR_54
			55	I ask myself questions to make sure I understand the material I have been studying in this class	CG_ME_MSR_55
			56	I try to change the way I study in order to fit the course requirements and instructor's teaching style	CG_ME_MSR_56
			57	I often find that I have been reading for class but don't know what it was all about	CG_ME_MSR_57
			61	I try to think through a topic and decide what I am supposed to learn from it rather than just reading it over when studying	CG_ME_MSR_61
			76	When studying for this course I try to determine which concepts I don't understand well	CG_ME_MSR_76
			78	When I study for this class, I set goals for myself in order to direct my activities in each study period	CG_ME_MSR_78
			79	If I get confused taking notes in class, I make sure I sort it out afterwards	CG_ME_MSR_79

Resource management scales

Component	N	Theme	N	Item	Label
Resource management strategies	1	Time and study environment	35	I usually study in a place where I car, concentrate on my course Work	RMS_TSE_35
			43	I make good use of my study time for this course	RMS_TSE_43
			52	I find it hard to stick to a study schedule.	RMS_TSE_52
			65	I have a regular place set aside for studying	RMS_TSE_65
			70	I make sure I keep up with the weekly readings and assignments for this course	RMS_TSE_70
			73	I attend class regularly	RMS_TSE_73
			77	I often find that I don't spend very much time on this course because of other activities. (REVERSEP)	RMS_TSE_77
			80	I rarely find time to review my notes or readings before an exam.	RMS_TSE_80
	2	Effort regulation	37	I often feel so lazy or bored when I study for this class that I quit before I finish what I planned to do.	RMS_EFR_37
			48	I work hard to do well in this class even if I don't like what we are doing	RMS_EFR_48
			60	When course work is difficult, I give up or only study the easy parts.	RMS_EFR_60
			74	Even when course materials are dull and uninteresting, I manage to keep working until I finish	RMS_EFR_74
	3	Peer learning	34	When studying for this course, I often try to explain the material to a classmate or a friend	RMS_PL_34
			45	I try to work with other students from this class to complete the course assignments	RMS_PL_45
			50	51	RMS_PL_50
	4	Help seeking	40	Even if I have trouble learning the material in this class, I try to do the work on my own, without help from anyone.	RMS_HS_40
			58	I ask the instructor to clarify concepts I don't understand well	RMS_HS_58
			68	When I can't understand the material in this course, I ask another student in this class for help	RMS_HS_68
			75	I try to identify students in this class whom I can ask for help if necessary	RMS_HS_75

Appendix F: Summary of emerging themes for second research sub-question

Table 37-a: Summary of emerging themes for second research sub-question

Research sub-question	Units of analysis	Interview question	Emerging themes				
			N	Main theme	N	Sub-theme	Description
How do learners at King Khalid University motivate themselves on a blended learning course?	Intrinsic goal orientation and extrinsic goal orientation	1- Why are you engaging in the learning task in this course?	1	Intrinsic goal orientation	a	Update Islamic information	Student is engaging because he wants to learn something and update his Islamic information
			2		b	Seek coherence	Student is engaging to associate their major subjects with other required subjects
			3		c	life practice	Student is engaged because they found the materials is related to their future life practices
			4		d	Preferences	Student is studying the subject because he loves the subject itself and he sees his self in it
			5		e	Previous background	Student is engaged because he is familiar with the materials previously
			6		f	Level of priority	Student is engaged because the material being is a priority for him
			7		g	Learning content	Student is engaged because of the type of the learning content
			1	extrinsic goal orientation	a	Overall average	Student is engaged on the course in order to increase or maintain his academic overall average
			2		b	Ease of the module	Student is engaged because the learning module is easy to manage
			3		c	Fixed plan	Student is engaged because he is following the academic plan developed by the faculty
			4		d	Instructional style	Student is engaged because he likes the style that the instructor is applying on the course
			5		e	Balancing the load	Student is engaging in the subject to balance between difficult and easy subjects
			6		f	For change	Student is engaging to have some kind of diversity in the subject they are studying
	Task value	2- What do you think about the learning tasks in this course?	1	Positive perspectives	a	Association with contemporary life	Student is evaluating the learning task as a task that is associated with the contemporary life
			2		b	Clarity	Student is evaluating the learning task as a direct and simple task
			3		c	Improving learning skills	Student is happy that the learning task helped him to improve his learning skills
			4		d	Learner voice	Student feel positive of the learning task because it gives a space for his voice
			5		e	Independence	Student like the learning task because it encourage him to be independent
			6		f	Thinking stimulation	Student like the homework because it stimulate his thinking
			1	Negative perspectives	a	Online learning tasks	Student believe that conducting tasks via Blackboard decreased his enthusiastic
			2		b	Attitude issues to learning tasks	Some students on the course stated clearly a negative attitude to the idea of learning tasks

Table 38-b: Summary of emerging themes for second research sub-question

Research sub-question	Units of analysis	Interview questions	Emerging themes				
			N	Main theme	N	Sub-theme	Description
How do learners at King Khalid University motivate themselves on a blended learning course?	control of learning beliefs	3- How would you describe your own efforts to learn in this course?	1	Positive indicators	a	Arrangement	The student shows the ability for arranging the conflict learning tasks for different modules in order to concentrate more on one of them
					b	Chosing the way of learning	Student describing the effort of choosing learning style that suit him and the subject as well
					c	Preparation	The student is describing his effort by preparing for the learning task
					d	Following-up with instructor during the lecture	Student describing that following-up the instructor during the lecture is what helped him to achieve a good result
			2	Negative indicators	a	Absence	Students report his abesence during the course as a nigatve effort that can effect the learning outcomes
					b	Dispersions	Student is talking about dispresions during the course as a reasons that effect his effort
					c	Rushing	Student is reporting a rushing action that idicates a nigative learning effort
					d	Forgetting information	reflects responses of some the students in the course who report forgetting information that they already studied as a negative indication for their learning effort
					e	Not studying constantly	This reflects responses of some the students in the course who report not studying constantly as a negative indication for their learning effort
	expectancy	4- What are your expectations about your ability to succeed in this course?	1	Distinguished mark expectations	a	Care of the subject	Student is expecting to achieve distinction because he care of the subject
					b	Eas of the material	Student is expecting to achieve distinction because the subject is easy
					c	Fulfilling the requirements for a distinguished mark	This reflects the responses of some the participants in the course who stated that they expect to achieve distinction because they fulfilled the requirements for a distinguished mark
					d	Previous achievment	Student is expecting to achieve distinction because he achieved a distinction grad in previous subjects
			2	Not distinguished mark expectations	a	Absence	Student is expecting less than the highest level becuase his absence from lessons
					b	Online learning tasks	Student is expecting less than the highest grade because he is not used blended learning approach
					c	Pressure	Student is expecting less than the highest grade because he is having pressure studying many subjects in the same period
	self-efficacy	5- How would you assess your ability to master a task in this course?	1	Posative self-appraisal	a	Immediate task conducting	Students whom believe that they have a positive self- appraisal about their ability to master a learning task because the conduct their learning task without any delay
			2	Nigative self-appraisal	b	Searching ability issues	Students reporting that they are having some problems in conducting a research task
					c	Not understanding the lessons that are not attended	Students emphasising that they are having some problems understanding lessons he did not attend

Table 39-c: Summary of emerging themes for second research sub-question

Research sub-question	Units of analysis	Interview question	Emerging themes				
			N	Main theme	N	Sub-theme	Description
How do learners at King Khalid University motivate themselves on a blended learning course?	test anxiety (the worry component)	6- How would you describe your thinking about having a test in this course?	1	Not worried thoughts about the test	a	Not Worried because well preparing	Students who are not having a worried feeling before the exam because they were well prepared before the exam
					b	Not Worried because the level of ease	Students who are not having a worried feeling before the exam because they believe that the subject is easy
					c	Not Worried because the level of confidence	Students who are not having a worried feeling before the exam because they are confident that they will achieve a good grade
			2	The worried thoughts about the test	a	Worried about the level of difficulty	Students reported a worried feeling before the exam because he was thinking about the difficulty of the exam
					b	Worried about the result	Students in the course who reported a worried feeling before the exam because of not attaining the full mark
					c	Worried as a habit	Participants in the course who reported a worried feeling before the exam as a habit that they used to have before any exam
					d	Worried about the level of preparation	To students in the course who reported a worried feeling before the exam because they were not fully prepared
					e	Worried about having more than one exam in a day	Students in the course who reported a worried feeling before the exam because they were having more than one exam the one day
	test anxiety (the emotionality component)	7- How would you describe your feeling when you have a test in this course?	1	Not worried feelings during the test	a	Not worried because of familiarity of the questions	Students who reported that they feel comfortable during the test because there are things in the test that he studied and can answer
			2	Worried feelings during the test	a	Worried about unfamiliar questions during the test	Students reported a worried feeling during the test because there are questions that they are not familiar with
					b	Worried by nature	Students who reported a worried feeling during the test because it is part of the nature of any test

Appendix G: Summary of emerging themes for third research sub-question

Table 38-a: Summary of emerging themes for third research sub-question

Research sub-questions	Units of analysis	Interview question	Emerging themes				Description
			N	Main theme	N	Sub-theme	
How learners at King Khalid University use their ognitive and metacognitive abilities on a blended learning course?	Rehearsal	8- How do you learn new concepts in this course?	1	Marking new concepts	a	----------	students in the course are using to learn new concept is to mark on the new concept in way that makes it notable for them in the second studying stage
			2	Initial reciting of the new concept	b	----------	student in the course when learning new concepts is reciting the concept initially in the first stage
			3	Writing down the new concept	c	----------	students in the course use to write down the new concept in a way that helps them to focus on it in the second studying phase
	Elaboration	9- How do you store information in this course into long-term memory?	1	Repetition of the information	a	----------	the repetition technique in which the student would repeat the information that he want store it into long-term memory
			2	Revising the information regularly	b	----------	students reported that they would revise the information that they would like store it into long-term memory on a regular basis
			3	Understanding the information	c	----------	Understanding was among the strategies that some of the student uses in order to store it into long-term memory
			4	Connecting the information to previous experience	d	----------	Some students in the course believe that connecting the information to their previous experiences would help them to store it into long-term memory
			5	Summarising the information	e	----------	storing information into long-term memory among the participants is by summarising the information
			6	Teaching and discussing the information with others	f	----------	student mentioned the idea of teaching and discussing the information with others in order to store information into long-term memory
			7	Drawing	g	----------	Drawing shapes and figures was among the clear strategies that the students utilised to store information into long-term memory
			8	Dividing the information into parts	h	----------	students in the interview reported that when they want to store information into long-term memory they would divide the information into parts so it could be easy to tackle
	organisation	10- How do you select appropriate information and construct connections among the information to be learned in this course?	1	Clustering and linking	a	----------	the idea of creating segments among the learning content then to link these to each other
			2	Labelling the information	b	----------	the idea of labelling to organise the information that they learn in the course
			3	Analyse the information and reorder it	c	----------	students in the course use to analyse in the learning content then try to reorder it in his own style when they want to organise the information in the course
			4	Gradating the information from the easiest to the most difficult	d	----------	organising the learning content is the idea of gradating the information from the easiest to the most difficult then to deal with it separately

Table 38-b: Summary of emerging themes for third research sub-question

Research sub-question	Units of analysis	Interview question	Emerging themes				Description
			N	Main theme	N	Sub-theme	
How learners at King Khalid University use their ognitive and metacognitive abilities on a blended learning course?	Critical thinking	11- How do you normally make decisions to solve learning problems related to new situations that you encounter during your study for this course?	1	External resources to solve learning problems	a	----------	Participants reported that when they encounter learning problems that need to be solved they would seek the help from an external resource
			2	Self-resource to solve learning problems	b	----------	Participants, who reported information about using self-resources to solve learning problems
	Planning	12- How do you usually plan for your learning task?	1	Positive planning for learning indicators	a	Scheduling the learning task	Students in the course replied that they schdual their time when they have learning tasks
					b	Performing the learning task	Students in the course stated that thay do have learning process when they are perfoming their learning task
			2	Negative planning for learning indicators	a	Balancing issue	Participants in the course who replied that they do not plan for their learning tasks because they are having difficulties in performing more than one learning task per day
					b	Attitude issue	Participants in the course who replied that they do not plan for their learning tasks because they believe that it is not important
					c	Skill issue	Participants in the course who replied that they do not plan for their learning tasks because they are lake of planning skills
					d	Instructional design issue	Participants in the course who replied that they do not plan for their learning tasks because they believe that the learning task that they did have does not require planning
	Monitoring	13- How do you normally judge your learning outcomes after accomplishing a learning task in this course?	1	Observing the length of learning period	a	----------	Students in the course uses to monitor their learning performance is by observing the length of learning period
			2	Observing learning outcomes	b	----------	is observing the learning outcomes by the end of the learning session
			3	Loosing concentration	c	----------	Losing concentration during the learning session is one of the indicators that learners reported when monitoring their learning performance
	Regulating	14- What normally do you do if you did not learn what you should learn from a learning	1	Restudy again with more focus	a	----------	Students in the course replied that they used to study again with spending more focus on the learning material if they did not what they should learn by the end of a learning session

		task in this course?					

Appendix H: Summary of emerging themes for fourth research sub-question

Table 39-a: Summary of emerging themes for fourth research sub-question

Research sub-question	Units of analysis	Interview question	N	Emerging themes	N	Emerging sub-themes	Description
How do learners at King Khalid University use their learning resources on a blended learning course?	Time management	15- How do you normally manage your learning time in this course?	1	Positive learning time management indicators	1	Having a schedule study	This is about the student having a scheduled time studying
					2	Managing the study time	This relates to use of scheduled time studying
			2	Negative learning time management indicators	1	Part-time work	Some of the students in the course do not have a specific time for learning because they are engaging daily with a part-time work
					2	The nature of the subject	Another observed reason from the responses for not assigning a time for learning in the course is the nature of the subject whether it requires more effort or not
					3	Learning habits	students reported that they do not specify a time for studying for the course because it is part of their learning habits
					4	Entertainments	Entertainments are one of the reported reasons for not having a time to study for this course
	Study environment	16- How do you normally manage your learning environment in this course?	1	Calmness	-	-	Many students in the course prefer to study in a quiet and calm place and they would manage the learning environment in a way that provides them such specification
			2	Loneliness	-	-	Others in the course would prefer to study alone
			3	Lightness	-	-	The level of lightness is one of the specifications for the learning environment in which some of the participants have mentioned during the interview
	Effort regulation	17- What do you do normally when you encounter distractions and uninteresting learning tasks in this course?	1	Dividing the load	-	-	Some students in the course use to divide the learning load when they encounter distractions and uninteresting learning tasks in this course
			2	Continuing even with distractions and uninteresting learning tasks	-	-	Others would prefer when they encounter distractions and uninteresting learning tasks in this course to keep going on without any change until the end of his studying session
			3	Breaking the situation	-	-	One of the obvious extracted themes is breaking the situation if the students in the course encountered distractions and uninteresting learning tasks
			4	Swapping between subjects	-	-	Some participants reported the idea of swapping between subjects when the students in the course encountered distractions and uninteresting learning tasks

Table 39-b: Summary of emerging themes for fourth research sub-question

Research sub-question	Units of analysis	Interview question	N	Emerging themes	N	Emerging sub-themes	Description
How do learners at King Khalid University use their learning resources on a blended learning course?	peer learning	18- How do you usually collaborate with your peers in this course?	1	Positive peer collaboration practice	1	Asking questions about the learning materials	One of the forms that students in the course use to collaborate with their peers is asking questions about the learning materials
					2	Online discussions	The other reported practice of peer learning is the collaboration through online discussions
			2	Negative peer learning practice	1	Relationship matters	One of the reasons for not collaborating with peers among some of the student in the course is that they do not have any relationship with the student in the course
					2	Attitude matters	Other students reported that do not collaborate with their peers because they have negative attitudes toward such aspect
					3	Subject matters	Some students do not collaborate with their peers in this course because they believe that they could learn the materials without collaboration
					4	Learning task matters	The design of learning task is one of the reasons for not collaborating with peers in the course
	help seeking	19- What normally do you do when you face any difficulties in your study for this course?	1	Relatives	-	-	Relatives are among the people of whom some of the students in the course seek help from if they have difficulties in the course
			2	The instructor	-	-	One of the reported categories is the help seeking of the instructor
			3	Experts in the subject	-	-	Another group of whom some of the students in the course will seek help from when they face difficulties in the course are experts in the learning subject
			4	The classmates	-	-	Some of the students in the course when they encounter difficulties in the course would seek help from their classmates

Appendix I: Sample of the pilot for the translation and the interview questions

تحكيم أسئلة المقابلة الشخصية

أخي المحكّم الكريم.....

السلام عليكم ورحمة الله وبركاته

يسعدني أن أضع بين يديك جدول محددات المقابلة الشخصية التي أنوي تطبيقها على مجموعة من طلاب جامعة الملك خالد ممن يدرسون بأسلوب التعلّم المدمج ، كجزء من أدوات البحث التي سوف استخدمها في بحثي الذي هو بعنوان " الأساليب والطرق التي يستخدمها الطلاب لتوجيه تعلّمهم الذاتي في بيئات التعليم المدمج بجامعة الملك خالد" وهي دراسة استكشافية تهدف إلى التعرف على أنماط السلوك التعليمي الذي يمارسه الطلاب في بيئات التعلّم المدمج، من خلال التعرف على ممارسات الطلاب في ثلاثة جوانب رئيسة : الاستراتيجيات الإدراكية والفوق إدراكية- واستراتيجيات التعلّم المتبعة - واستراتيجيات الدوافع.

ومهمّة التحكيم ستنحصر –حفاظاً على وقتكم الكريم- على جانبين:

1- مناسبة صيغة السؤال (بالصيغة الإنجليزية) للحيثيات الموجودة في الجدول

2- إذا اتفقت مع صيغة السؤال ، فهل الترجمة العربية للسؤال مناسبة

أسعد جداً بملاحظاتكم من خلال الخانة الخاصة (بتعليق المحكّم على السؤال والترجمة)

شاكر لكم كريم تعاونكم ، وأسأل الله العلي القدير أن لا يحرمك الأجر والمثوبة..

أخوك

سامي الشهراني- باحث دكتوراه بجامعة ساوثهامبتون

1

القسم الأول: الاستراتيجيات الإدراكية والفوق إدراكية

تعليق المحكم على صياغة السؤال وكذلك الترجمة	راي المحكمين في صياغة السؤال بناءً على الحيثيات وكذلك الترجمة			Explanatory Notes حيثيات السؤال	أسئلة المقابلة	Aspects الجوانب
	غير موافق	إلى حد ما	موافق			
كيف تتعلم المفاهيم الجديدة في هذا المقرر؟ تحذف كلمة (عادة) حتى الثوابت موجودة في ترجمة السؤال		✓		Basic rehearsal strategies involve reciting or naming items from a list to be learned. These strategies are best used for simple tasks and activation of information in working memory rather than acquisition of new information in long-term memory. These strategies are assumed to influence the attention and encoding processes, but they do not appear to help students construct internal connections among the information or integrate the information with prior knowledge	How do you learn new concepts in this course? 1- كيف تتعلّم عادةً المفاهيم الجديدة في هذا المقرر؟	Rehearsal
الترجمة ليست صحيحة: لأن بكلمة how وفي العربي لم تأت بغيرها السؤال يكون كالتالي: ماذا تفعل عندما تريد أن تحتفظ بالمعلومة في ذاكرتك؟ — What do you do When	✓			Elaboration strategies help students store information into long-term memory by building internal connections between items to be learned. Elaboration strategies include paraphrasing, summarizing, creating analogies, and generative note-taking. These help the learner integrate and connect new information with prior knowledge	How do you store information in this course into long-term memory? 2- عندما تريد أن تحتفظ بالمعلومة التي تتعلّمها في هذا المقرر على المدى الطويل فماذا تفعل؟	Elaboration
ممتاز جدا			✓	Organization strategies help the learner select appropriate information and also construct connections among the information to be learned. Examples of organizing strategies are clustering, outlining, and selecting the main idea in reading passages. Organizing is an active, effortful endeavor, and results in the learner being closely involved in the task. This should result in better performance	How do you select the appropriate information and construct connections among the information to be learned in this course? 3- كيف تقوم باختيار المعلومة المناسبة وكذلك الربط بينها وبين معلومات أخرى عند دراسة محتوى هذا المقرر؟	Organization

2

تعليق المحكم على صياغة السؤال وكذلك الترجمة	راي المحكمين في صياغة السؤال بناءً على الحيثيات وكذلك الترجمة			Explanatory Notes حيثيات السؤال	أسئلة المقابلة	Aspects الجوانب
	غير موافق	إلى حد ما	موافق			
السؤال بالإنجليزي غير مطابق للترجمة العربية غير موجودة في السؤال العربي Make decisions		✓		Critical thinking refers to the degree to which students report applying previous knowledge to new situations in order to solve problems, reach decisions, or make critical evaluations with respect to standards of excellence	How do you normally make decisions to solve learning problems related to new situations that you encounter during your study for this course? **4- كيف تقوم عادة بحل المشكلات الدراسية التي تواجهك أثناء دراسة هذا المقرر؟**	Critical Thinking
من أجل الترجمة : لا يوجد في السؤال الإنجليزي كلمة إنجاز ولا كالبحث مثلاً السؤال العربي ممتاز فقط أعد الترجمة الإنجليزية		✓		Planning activities such as goal setting and task analysis help to activate, or prime, relevant aspects of prior knowledge that make organizing and comprehending the material easier	How do you usually plan for your learning task? **5- كيف تخطط عادة لإنجاز المهام الدراسية كالبحث مثلاً؟**	Planning
الترجمة تختلف تماماً انظر بداية السؤالين عربي وإنجليزي	✓			Monitoring activities include tracking of one's attention as one reads, and self-testing and questioning: these assist the learner in understanding the material and integrating it with prior knowledge	How do normally judge your learning outcomes after accomplishing a learning task in this course? **6- عند الانتهاء من أداء مهمة دراسية معينة في هذا المقرر كيف تتأكد من نتائج تلك المهمّة؟**	Monitoring
نفس الشيء لديك خلاف في الترجمة	✓			Regulating refers to the fine-tuning and continuous adjustment of one's cognitive activities. Regulating activities reassumed to improve performance by assisting learners in checking and correcting their behaviour as they proceed on a task	What normally do you do if you did not learn what you should learn from a learning task in this course? **7- عندما تدرس لهذا المقرر، ماذا تفعل عادة عندما تكتشف أنّ نتائج المهمّة الدراسية التي قمت بها ليست مناسبة؟**	Regulating

3

القسم الثاني: استراتيجيات التعلّم

تعليق المحكم على صياغة السؤال وكذلك الترجمة	راي المحكمين في صياغة السؤال بناءً على الحيثيات وكذلك الترجمة			Explanatory Notes حيثيات السؤال	أسئلة المقابلة	Aspects الجوانب
	غير موافق	إلى حد ما	موافق			
الترجمة	✗	✓		Time management involves scheduling, planning, and managing one's study time. This includes not only setting aside blocks of time to study, but the effective use of that study time, and setting realistic goals. Time management varies in level, from an evening of studying to weekly and monthly scheduling	How do you normally mange your learning time in this course? 8- كيف تدير وقتك المخصص لدراسة هذا المقرر؟	Time management
			✓	Study environment management refers to the setting where the student does her class work. Ideally, the learner's study environment should be organized, quiet, and relatively free of visual and auditory distractions	How do you normally manage your learning environment in this course? 9- كيف تهيء عادة بيئة التعلّم الخاصة بك عند الدراسة لهذا المقرر؟	Study Environment
الترجمة		✓		Self-regulation also includes students' ability to control their effort and attention in the face of distractions and uninteresting tasks. Effort management is self-management, and reflects a commitment to completing one's study goals, even when there are difficulties or distractions. Effort management is important to academic success because it not only signifies goal commitment, but also regulates the continued use of learning strategies	What do you do normally when you encounter distractions and uninteresting learning tasks in this course? 10 - عندما تدرس لهذا المقرر، ماذا تفعل عادة عندما تواجهك مهام وواجبات دراسية مشتتة ومملّة؟	Effort Regulation
فقط اتفق عادة			✓	Collaborating with one's peers has been found to have positive effects on achievement. Dialogue with peers can help a learner clarify course material and reach insights one may not have attained on one's own	How do you usually collaborate with your peers in this course? 11- كيف تتعاون عادةً مع زملائك عندما تدرس لهذا المقرر؟	Peer Learning

4

تعليق المحكم على صياغة السؤال وكذلك الترجمة	راي المحكمين في صياغة السؤال بناءً على الحيثيات وكذلك الترجمة			Explanatory Notes حيثيات السؤال	أسئلة المقابلة	Aspects الجوانب
	غير موافق	إلى حد ما	موافق			
عندما تواجهك			✓	Another aspect of the environment that the student must learn to manage is the support of others. This includes both peers and instructors. Good students know when they don't know something and are able to identify someone to provide them with some assistance. There is a large body of research that indicates that peer help, peer tutoring, and individual teacher assistance facilitate student achievement	What normally do you do when you face any difficulties in your study for this course? لا يتم تطابق السؤال بالانجليزي 12- ماذا تفعل عادة إذا واجهتك صعوبات معينة عند الدراسة لهذا المقرر؟	Help Seeking

5

القسم الثالث: الدوافع التعليمية

تعليق المحكم على صياغة السؤال وكذلك الترجمة	راي المحكمين في صياغة السؤال بناءً على الحيثيات وكذلك الترجمة			Explanatory Notes حيثيات السؤال	أسئلة المقابلة	Aspects الجوانب
	غير موافق	إلى حد ما	موافق			
in this course يفترض أن تكون when you studing this course		✓		**Intrinsic Goal orientation** refers to the student's perception of the reasons why she is engaging in a learning task. On the MSLQ, goal orientation refers to student's general goals or orientation to the course as a whole. Intrinsic goal orientation concerns the degree to which the student perceives herself to be participating in a task for reasons such as challenge, curiosity, mastery. Having an intrinsic goal orientation towards an academic task indicates that the student's participation in the task is an end all to itself, rather than participation being a means to an end. **Extrinsic goal orientation** complements intrinsic goal orientation, and concerns the degree to which the student perceives herself to be participating in a task for reasons such as grades, rewards, performance, evaluation by others, and competition. When one is high in extrinsic goal orientation, engaging in a learning task is the means to an end. The main concern the student has is related to issues that are not directly related to participating in the task itself (such as grades, rewards, comparing one's performance to that of others). Again, this refers to the general orientation to the course as a whole.	What makes you engaged in a learning task in this course? **13- ما الذي يجعلك تندمج في مهمّة تعليمية عند دراستك لهذا المقرر؟**	Intrinsic and Extrinsic Goal Orientation
مرة أخرى الترجمة غير مطابقة بتاتاً	✓			Task value differs from goal orientation in that task value refers to the student's evaluation of the how interesting, how important, and how useful the talk is ("What do I think of this task). Goal orientation refers to the reasons why, the student is participating in the task ("Why am I doing this?").High task value should lead to more involvement in one's learning. On the MSLQ, task value refers to students' perceptions of the course material in terms of interest, importance, and utility	What do you think about the learning tasks in this course? **14- كيف تقيم المهام التعليمية التي تكلّف بها في هذا المقرّر؟**	Task Value

6

تعليق المحكم على صياغة السؤال وكذلك الترجمة	راي المحكمين في صياغة السؤال بناءً على الحيثيات وكذلك الترجمة			Explanatory Notes حيثيات السؤال	أسئلة المقابلة	Aspects الجوانب
	غير موافق	إلى حد ما	موافق			
			✓	Control of learning refers to students' beliefs that their efforts to learn will result in positive outcomes. It concerns the belief that outcomes are contingent on one's own effort, in contrast to external factors such as the teacher. If students believe that their efforts to study make a difference in their learning, they should be more likely to study more strategically and effectively. That is, if the student feels that she can control her academic performance, she is more likely to put forth what is needed strategically to effect the desired changes	How can you evaluate your own efforts to achieve the positive outcomes from this course? تستطيع 15- كيف يمكن أن تقوم جهدك الذاتي في تحقيق نتائج إيجابية في هذا المقرر؟	Control of Learning Beliefs
		✓		Expectancy for success refers to performance expectations, and relates specifically to task performance إحذفها؛ لا توجد في السؤال الإنجليزي	How can describe your performance expectations and your ability to succeed in this course? تستطيع 16 - كيف يمكن أن تصف توقعات حول أدائك ومدى قدرتك على أداء المهام التعليمية في هذا المقرر ؟	expectancy
أعد صياغة السؤال العربي السؤال العربي غير مطابق للإنجليزي		✓		Self-efficacy is a self-appraisal of one's ability to master a task. Self-efficacy includes judgments about one's ability to accomplish a task as well as one's confidence in one's skills to perform that task	How can you assess your ability to master a task in this course? تستطيع 17 - كيف يمكنك تقييم قدرتك على إتقان المهام التعليمية التي تكلف بها في هذا المقرر؟ تأكد من أنها مفردة بالإنجليزية	self-efficacy

7

تعليق المحكم على صياغة السؤال وكذلك الترجمة	راي المحكمين في صياغة السؤال بناءً على الحيثيات وكذلك الترجمة			Explanatory Notes حيثيات السؤال	أسئلة المقابلة	Aspects الجوانب
	غير موافق	إلى حد ما	موافق			
الترجمتين غير متطابقتين	✓			Test anxiety has been found to be negatively related to expectancies as well as academic performance. Test anxiety is thought to have two components: a worry, or cognitive component, and an emotionality component. The worry component refers to students' negative thoughts that disrupt performance The emotionality component refers to affective and physiological arousal aspects of anxiety	How can you describe your thinking about having a test in this course? **18- كيف يمكن أن تصف تفكيرك عندما يكون لديك اختبار في هذا المقرر؟**	Test Anxiety (The worry component)
			✓		How can you describe your feeling when you have a test in this course? **19- كيف يمكن أن تصف مشاعرك عندما يكون لديك اختبار في هذا المقرر؟**	Test Anxiety (the emotionality component)

أخي الحبيب وفقك الله :-

كثير من الأسئلة تدور حول المعنى ولكن الترجمة غير مطابقة (لابد من مطابقة الترجمة) هناك بعض الكلمات الموجودة في الترجمة العربية لا وجود لها في النسخة الإنجليزية ،

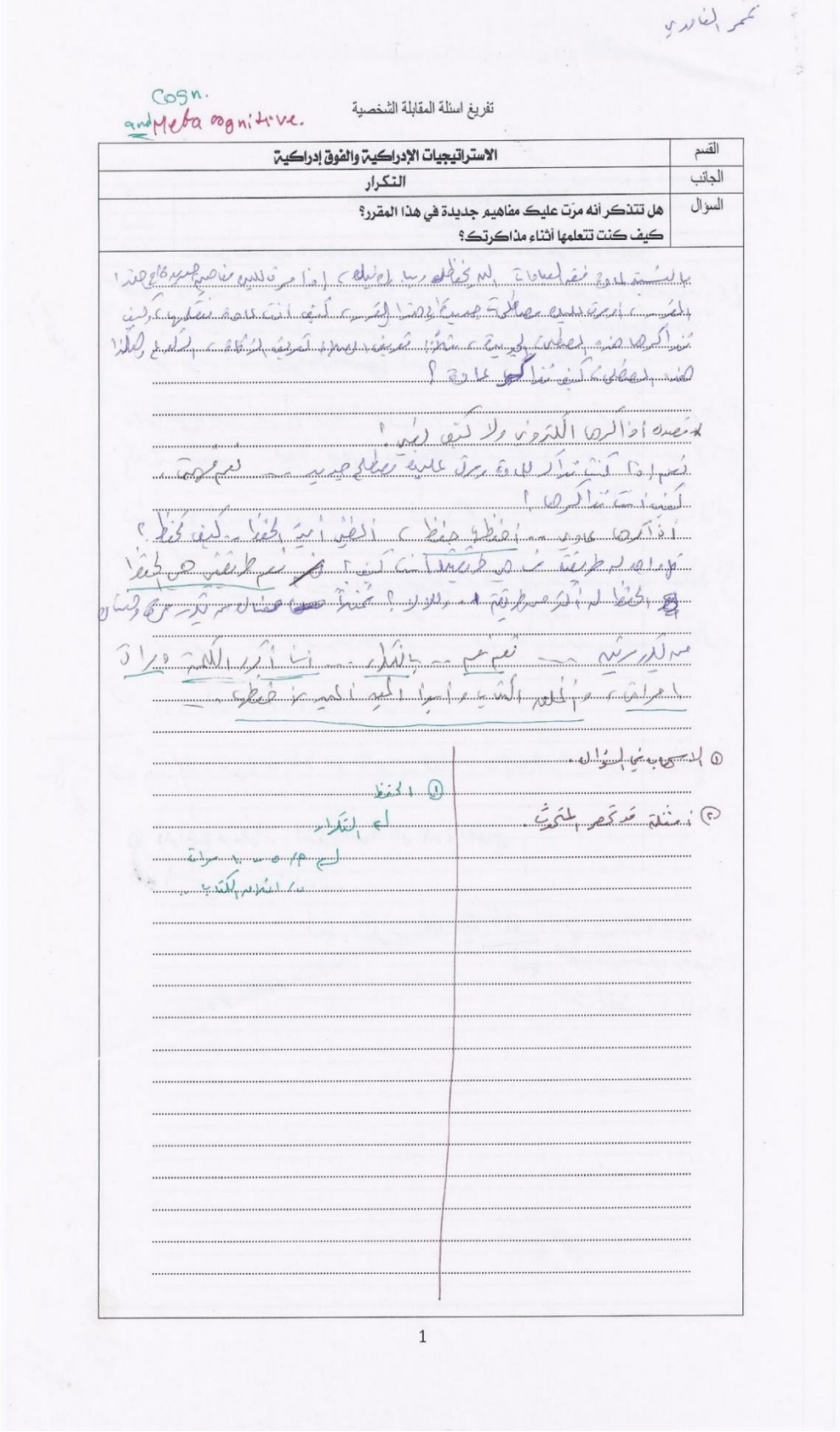
أيضاً : تأكد من أن السؤال يبدأ كما يبدأ بالانجليزي ، فلا يصح أن تقول بالإنجليزي How you do

وفي العربي تقول ماذا تعمل او تبدأ بجملة خبرية ثم تقول السؤال (لابد من المطابقة)

أخيراً : ركزت لك على الجانب اللغوي ، لم توجد لدي ملاحظات على الجانب المعرفي فالأسئلة كلها تدور حول حيثياتها ،

وفقك الله

Appendix J: Sample of the transcript of the interview



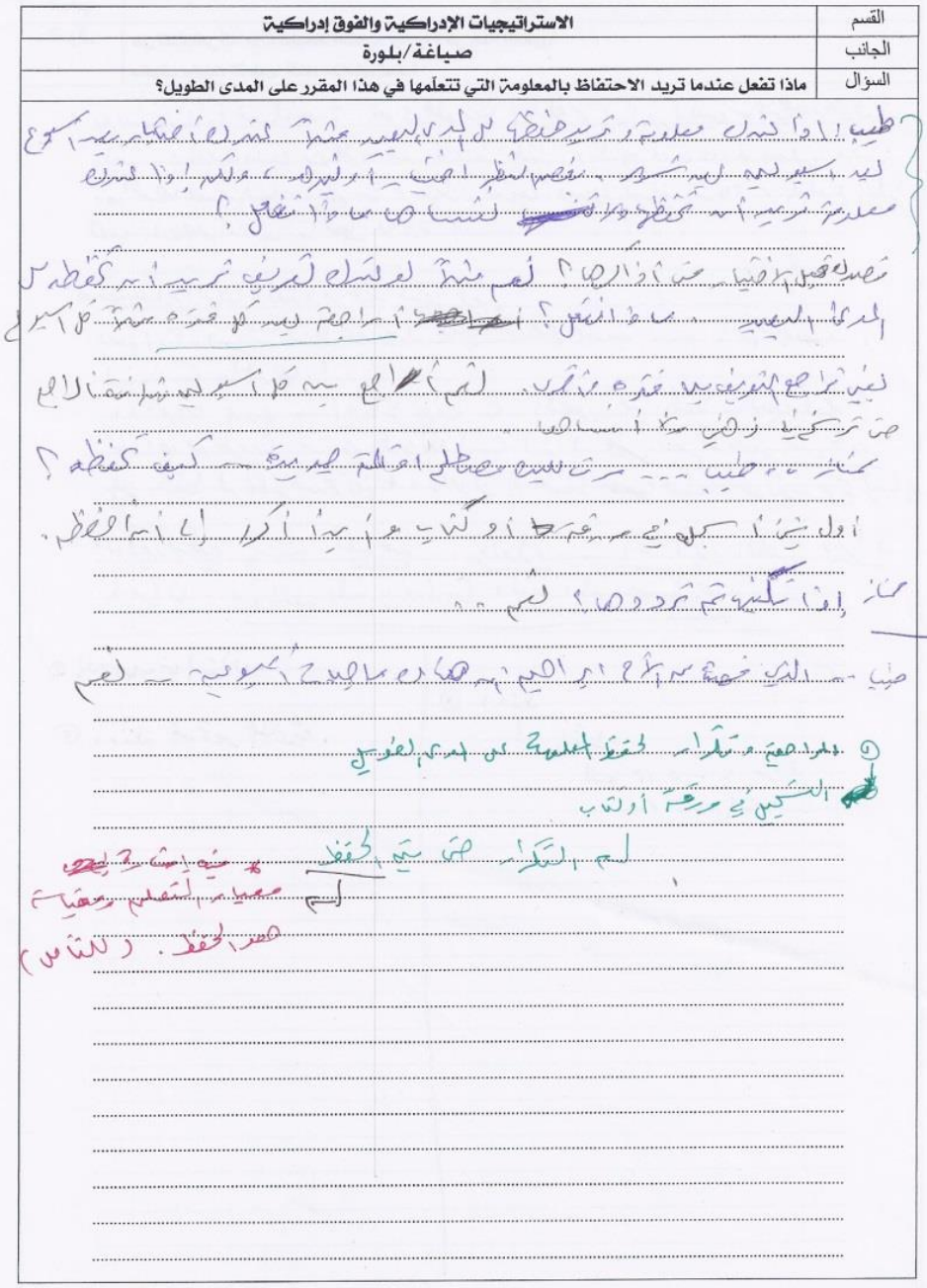
تفريغ اسئلة المقابلة الشخصية

Cogn. and Meta cognitive.

القسم	الاستراتيجيات الإدراكية والفوق إدراكية
الجانب	التكرار
السؤال	هل تتذكر أنه مرّت عليك مفاهيم جديدة في هذا المقرر؟ كيف كنت تتعلمها أثناء مذاكرتك؟

1

القسم	الاستراتيجيات الإدراكية والفوق إدراكية
الجانب	صياغة/بلورة
السؤال	ماذا تفعل عندما تريد الاحتفاظ بالمعلومة التي تتعلّمها في هذا المقرر على المدى الطويل؟



عمر

القسم	الاستراتيجيات الإدراكية والفوق إدراكية
الجانب	التنظيم
السؤال	كيف تقوم باختيار المعلومة المناسبة وتربط بينها وبين معلومات أخرى عند دراسة محتوى هذا المقرر؟

كيف تختار المعلومة المناسبة لهذا الواجب؟ أختار المعلومة المناسبة للسؤال
لنفسه، بعض سؤال الدرس أنت تميز أين هذه في الكتاب، كيف تعمل؟
نعم — عن طريق أول شي أروح على الفهرس، عن طريق أول جملة
من السؤال نفسه — جملة — أروح أدور في الكتاب
طيب لحظة — مثلاً إذا كان أكثر من صفحة — أروح لنفس
باب الصفحات — لا — بعدين هذا أول كلمة في السؤال أدور
عليه في الكتاب — بالضبط — محاضر — ما هو الكتاب
الذي تدرسونه؟ — كتاب أساس — كتاب إشرف يعني كتبوه كتاب
المقرر — فقط المحاضرات — لا؟ عمر يعني — أقصد مثلاً
الكتاب؟ هل هناك كتاب مرجعي له؟ شو يعني لا يوجد مرجعي،
ما هو؟ حاشية الوحدة فقط.

طيب — إذا تعلمت معلومة — هل تربطها بمعلومة أخرى سابقة
أو تعلمتها في مقرر ثاني؟ على حسب العلاقة — إذا كانت — على حسب المعلومة
كمان — كيف مثلاً؟ يعني إذا المعلومة أقدر أربطها بمقرر ثاني وإذا
ما في بين المعلومة لم أربطها.

هل تربط معلومة مرة ثانية بمعلومة أخرى؟ لا يعني شو

القسم	الاستراتيجيات الإدراكية والفوق إدراكية
الجانب	التفكير الناقد
السؤال	كيف تقوم عادة بحل المسائل الصعبة التي تواجهك أثناء دراسة هذا المقرر؟

إذا مرت عليك مسائل صعبة عند المذاكرة كيف تحل هذه الإشكالية؟

إذا مرت لي مسائل صعبة ... يعني ذا مرت على المسائل الصعبة هذه ... ؟
نعم لو كنت تذاكر في أحد الأيام ... على سؤال لم تعرف فيه
أو معلومة ولم أعرف بحل كيف تواجه هذه؟ أتوقف بالقصان —
السلام عليكم ... أحد للتأكد التدريس —
عمر — نعم — ...

السؤال الأول كيف تواجه المسائل الصعبة التي تمر عليك؟ نفس يعني حسب السؤال ... بأرجع أبحث في الكتاب ... وعندي الكتاب في الانترنت يعني ما خلي وسيلة إلا أستخدمها أكتشف الجواب هذا
إذا ما لقيته ... خلاص يعني — ... السؤال
مثلي — نعم أتركه ...

حتى لو كان يعني هذا السؤال خصم درجة أو درجتين؟ لا حتى لو كان يترتب
على خصم درجة أو درجتين ... أذكر يعني

نعم

القسم	الاستراتيجيات الإدراكية والفوق إدراكية
الجانب	التخطيط
السؤال	هل كلفت بمهام تعليمية متعلقة بهذا المقرر؟ كيف خططت لإنجازها؟ أو كيف ستقوم بالتخطيط لو كلفت؟

إذا كلفتم بواجبات تعليمية مثل بحث أو قراءة كتاب أو غيرها من المهام التي تكلفكم بها الشيخ -- وبعض منكم هذه المهمة وهذا العمل؟ كيف تسوي؟ كيف تخطط؟

مثلاً شوف لبني .. إذا كلفه عليه درجات البحث هذا ... على حسب الدرجة لبني ... أتحمس كذا أوم بدأ أخطط وكذا وأسوي كل شي حتى أكمل البحث هذا ... وإذا ما فيه درجات ... أفترض أنه عليها درجة كبيرة مثلاً بالنسبة لها .. فلان .. مثلاً تسلمها بسوي ماذا أفعل؟ مثلاً .. إنها ما تحب تخطط لها وتضبطها .. ماذا أفعل؟

شوف لبني .. إذا كان عليها درجة كبيرة بأتحمس وأبدأ أبحث أكتب وأخلي مكينة موقع حتى أطلع البحث هذا -- وأجلس أفكر وأحضر ذهني إلى أنه أطلع هذا البحث .. وأقعد أراجعه بسوي .. وإذا ما فيه درجات للبحث وكذا كذا .. أفترض أنه عليها درجات .. وتريد وضع خطة واحد أنها تبدأ، للشاب تكمل البحث -- كيف تسوي؟ أول يجي الدخول في الإنترنت أو أو يكون شيء أو يكون شيء؟ ماذا تفعل؟ كيف تسوي -- مثلاً شوف على حسب الموضوع الذي إياه، أروح أدور في المكتبات في الإنترنت .. أفكر إلى أنه أطلع البحث .. أطلع البحث كامل؟ أطلع كامل ... رتبت أنت؟ نعم نعم أنا الذي رتبته؟ أنت الذي رتبته -- نعم -- طيب

القسم	الاستراتيجيات الإدراكية والفوق إدراكية
الجانب	المراقبة
السؤال	هل تراقب أدائك أثناء عملية التعلم (القيام بمهمة تعليمية)؟ كيف؟

أثناء عملية التعلم - هل أنت تذاكر في البيت أم في المدرسة؟ لا في البيت
تذاكر في البيت - لماذا اخترت البيت طبعاً؟ لأنه يريح أكثر شيء.
~~ما هل حول ملاحظة تسميع ابراهيم الشراني حول الانترنت~~
(ما هل حول ملاحظة تسميع ابراهيم الشراني حول الانترنت)
السؤال أثناء تعلمك في البيت هل أنت تراقب أداءك؟ هل تراجع نفسك
وأنت تتعلم؟ كيف ما قرأت عن؟
لغي أنت جالس تقرأ مثلاً - بدأت القراءة بدأت تشعر بعدم
التركيز في القراءة - بدأت تفكر في أمور غير القراءة -
هل تحس بهذا الشعور وهل أنت تراقب نفسك أثناء عملية القراءة؟
لا لا، خاصة إذا كنت أذاكر للامتحان، أرجع أقرأ لي وأحفظه
للامتحان - ما أعطي له وقت فيه ساعة ساعتين، أقعد أذاكر
وأحفظ وأراجع - وبعد نقسم للمتوسط - وأرجع مقارنة هاوي
طيب إذا راجعت هاوي وبدأت تذاكر - ثم شرد الذهن -
هل تكتشف أن ذهنك شرد أو أنك بدأت تسرح في أشياء
ليست لها علاقة - لا لا في البداية أبعد الذهن كل شيء وأركز في الشيء
الذي أذاكره
طيب - خلاف التشتت - أنت تذاكر بطريقة معينة، هذه الطريقة لا تناسبك؟
هل تغيرها؟ لا أغيرها كلية - لغي أغير وأنت جالس تغير بدل
ما كنت تقرأ تكتب وبدل ما كنت تكتب تقرأ وهكذا؟ أغير أساليب التعلم
لا لا أنا عندي ألاقي عندي هل الحفظ أم الكتابة وهذي ما استخدمها
لا يوجد إلا الحفظ فقط - ثم أحفظ - أنا أكتب مرة - طبعاً كانت تعطيك هذه الطريقة
تبدل هل للفهم أو تحفظ فقط؟ لا أحفظ وبس -

القسم	الاستراتيجيات الإدراكية والفوق إدراكية
الجانب	التنظيم/التوجيه
السؤال	ماذا تفعل عندما تكتشف أنك لم تتعلم ما كان ينبغي عليك تعلّمه من مهمّة دراسية معينة قمت بها في هذا المقرر؟

[illegible]

7

القسم	الاستراتيجيات الإدراكية والفوق إدراكية
الجانب	إدارة الوقت
السؤال	هل لديك وقت مخصص لمذاكرة المقرر؟ * (نعم)، وكيف تنظم أو تدير ذلك الوقت؟ * (لا) ، لماذا؟ ومتى تذاكر للمقرر؟

هل لديك وقت مخصص للمذاكرة يومياً؟ أو أسبوعياً؟ أو شهرياً؟

لا ليس لدي وقت مخصص ... / لماذا؟ حتى ~~[illegible]~~ وصراحة تعطلني؟

شيء ما تقدرة للسبب ما؟ / لأنه لدي شغل ما أقدر أخلي المذكرة

والمذاكرة ... ~~[illegible]~~ تقريباً ... / شيء ما تذكر؟ / نعم.

نصف ساعة تقريباً

تخصص يومياً نصف ساعة للمذاكرة؟ نعم وقت اليوم في الليل. / تحب تكتب

كل شيء؟ / لا أسوي خرائط ذهنية / طيب ... طول النصف ساعة ... ماذا تفعل

صف لي ماذا تفعل؟ / النصف ساعة كلها حفظ ... أخذ الواجب /

شو معناها؟ مراجعة الدروس / الليل / ~~[illegible]~~ قبل النوم / أذاكر دروس

ثم أنام / الساعة قبل النوم / كيف تدرس، حفظ فقط؟ / نعم حفظ

فقط / يومياً / يومياً /

القسم	الاستراتيجيات الإدراكية والفوق إدراكية
الجانب	بيئة التعلّم
السؤال	كيف تهيء عادة بيئة التعلّم أو المذاكرة عند الدراسة لهذا المقرر؟

بالنسبة للمكان الذي تدرس فيه عادة ... هل هو في البيت فقط أو في أماكن أخرى غير البيت؟ / لا أدرس في البيت / هل هو المكان مريح في البيت؟ / لا أجلس بالأرض والأرض / في الجلوس / هل في نية تأثير هذه الأماكن على مراجعات مضيئة المكان الدراسة؟ / أهم شيء تكون هادئ، ليس هناك إزعاج مثلاً يوم أو شيء، تشغل بالذاكرة / هل تدرس في هذا المكان يومياً؟ نعم في نفس المكان / ... هل الإضاءة كافية في وقت؟ / لا / هل تشعر أن الإضاءة مناسبة للدراسة؟ / لا أعتقد أن الإضاءة / نعم شيء كثير في وقت؟ / لا ... طبعاً أعرف الوقت الذي أذاكر والطلب رأيه حاجة ..

أنا أحب أن أذاكر في وقت معين أحد ناحية .. ماعنده الآن أنا أكتب أعتمد فقط بس / هل تشعر أن تأثير هذه الطريقة؟ / نعم أخاف تأثير كثير / وطريقة تفكيرك سهلة؟ /

القسم	الاستراتيجيات الإدراكية والفوق إدراكية
الجانب	تنظيم أو توجيه الجهد
السؤال	ماذا تفعل عادة عندما تواجهك مهام مشتتة أو غير مرغوبة عندما تذاكر لهذا المقرر ؟

ضحك - ... لا أقول للأستاذ صعبة ولكن شيء ذهني لم تستطع استيعابها بشكل جيد ... أعيد قراءتها مرة أخرى هذا الشيء ؟ صدق أفتقر لغي إذا ما بدي نفس أذاكرها ... لا أقول أحيانا شتت ذهني وأنت تذاكرها ، وشتت أنها تيرواحي ... فرص أكتب عليها

القسم	الاستراتيجيات الإدراكية والفوق إدراكية
الجانب	تعلّم الأقران
السؤال	هل تتعاون عادة مع زملائك عند دراسة هذا المقرر؟ كيف؟ (لا) لماذا؟

[illegible]

القسم	الاستراتيجيات الإدراكية والفوق إدراكية
الجانب	طلب المساعدة
السؤال	هل تستعين بأحد إذا واجهتك صعوبات معينة عند الدراسة لهذا المقرر؟ من؟ وكيف؟ (لا) لماذا؟

مررت ضمنياً في السؤال السابع

12

القسم	الدوافع التعليمية
الجانب	التوجيه المبني على الأهداف الذاتية والخارجية
السؤال	ما الذي يجعلك تندمج في مهمة تعليمية عند دراستك لهذا المقرر؟

[illegible] لكي أنجح / [illegible] / لأنها تفيدني [illegible] / وما أهمية [illegible] / لازم [illegible] تنجح لك [illegible] وظيفة / [illegible] وظيفة مستقبلية ؟ / نعم / ماذا تشعر [illegible] / نعم /

القسم	الدوافع التعليمية
الجانب	قيمة المهمة التعليمية
السؤال	ما تقييمك لطبيعة واجبات المقرر الذي تدرسه؟

ما طبيعة الواجبات في المقرر؟ تكون التدريس - أسئلة هي عبارة عن خرائط التدريسية / نعم تكون - نحطيها سؤال التدريس وانت تحلها وترسلها / تكون في نفس الموقع / نعم وترسلها / تقييمك لهذه الواجبات - هل تفيدك من حيث المعلومات؟ نقصد التدريسية - نعم / انا أفيد بعض التدريس - عندي شروح وشرح ما فتحت التدريس؟ / لماذا؟ / لأنه هناك مشكلة - يعني إذا مثلاً حضرت محاضرة ~~[illegible]~~ التكتريك وفيه سؤال تريد أسئلة التدريس انت تشوفه ~~[illegible]~~ وتعطي وهو، ثم يعيدين مرة ثانية، وعندي ينقطع عليه الانترنت أو تجربة أو شيء، فأنا لا أفيده صراحة / ~~[illegible]~~ أفضل شيء تكون الدكتور أمامه - تأخذ وتعطي معه .. / هل تقترح أسئلة هذا السنة بسبب أن هذه السنة نسيها الدكتور / لا أذكر -

القسم	الدوافع التعليمية
الجانب	المعتقدات المتعلقة بقدرة المتعلم على التعلم
السؤال	هل تعتقد أن الجهد الذي تبذله في دراسة هذا المقرر هو الذي سيجعلك تحصل على نتائج ممتازة؟ ولماذا؟

هل تعتقد أن الجهد الذي تبذله لدراسة هذا المقرر هو الذي سيجعلك تحصل على نتائج ممتازة؟ ولماذا؟

نعم - سيجعلني تحصل نتائج ممتازة؟ لأن الجهد

نتيجته أخذ نتائج ممتازة؟ بالزبط - / لأن أنا أعتقد

بأنه أنا أخذ نتائج ممتازة حاصل الجهد الي أنا أبذله لأنه

وبس شي - أنا عاملة أني بأخذ نتائج - أنا عملة إنشاء

لكن بالنسبة للمواد - مش هنا مواد - / بعض هل أنت واثق

أنك رح تأخذ - أنا - جيد جداً - جيد؟ / أنا واثق أني بأخذ

جيد جداً - ممتاز - / الممتاز مستحيل؟ ليش؟ / لماذا؟

وبس - صار عادي نفس أدرس لي مادة - بس بدأت أسرع عادي!

لأنه أنت دخلت الي مادة بغير رغبة؟ أي - بس بغير رغبة عادي نفس يلزم

أدرس / طبعاً هي بيروح الي مادة؟ كمادة إجبارية / بشكل لازم

إجبارية - حاولت فيها / وبس حاولت فيها وتقدر تشرح لك شو الي مادة / دخلت الي مادة

شو هي؟ أي ما لنا رغبة فيها / هل كان لديك الدافعية الكافية للعمل بالمادة؟

لا - بس لو لا - لقول لا بدي تعلم الي مادة / هذا الذي جعلني أدرس وأهتم بكل التفاصيل

الموجودة في المنهج، صح؟ / نعم - لكن لا رغبة بالمادة كانت اهتمامي بكل شيء

بس عادي رغبة. / هل الي مادة تمثل لك وسيلة للوظيفة فقط؟ وإلا مصدر معرفي نظري

ضاف معلومات؟ الي مادة ليست الطريقة الوحيدة للوظيفة - في أشكال طرق أخرى للوظيفة غير لكن

الي مادة أفضل لتصير الوظيفة -

15

القسم	الدوافع التعليمية
الجانب	التوقعات المتعلقة بالنجاح
السؤال	كيف يمكن أن تصف توقعاتك حول أدائك ومدى قدرتك النجاح في هذا المقرر ؟

أعرف أن المادة الصعبة لدراستي تتطلب أن يكون عندي معلومات
أن تتقن هذه المادة وفي نهاية الفصل كامل مجموعتي ؟ كيف كشف نفسي من
خلال تمكنك امكاناتك وقدراتك ثم الصلاح أنك تحل أصعب المواضيع بسهولة
مشكلة الوقت ما عندي امكانات وقدرات ... تحل الواجبات والمذاكرة
بشي أمثل وقت لي ليس عندي مخيمنيا .

عمر

القسم	الدوافع التعليمية
الجانب	الكفاءة الذاتية
السؤال	كيف تقيم قدرتك على إتقان المهام التعليمية والواجبات الدراسية التي تكلّف بها في هذا المقرر؟

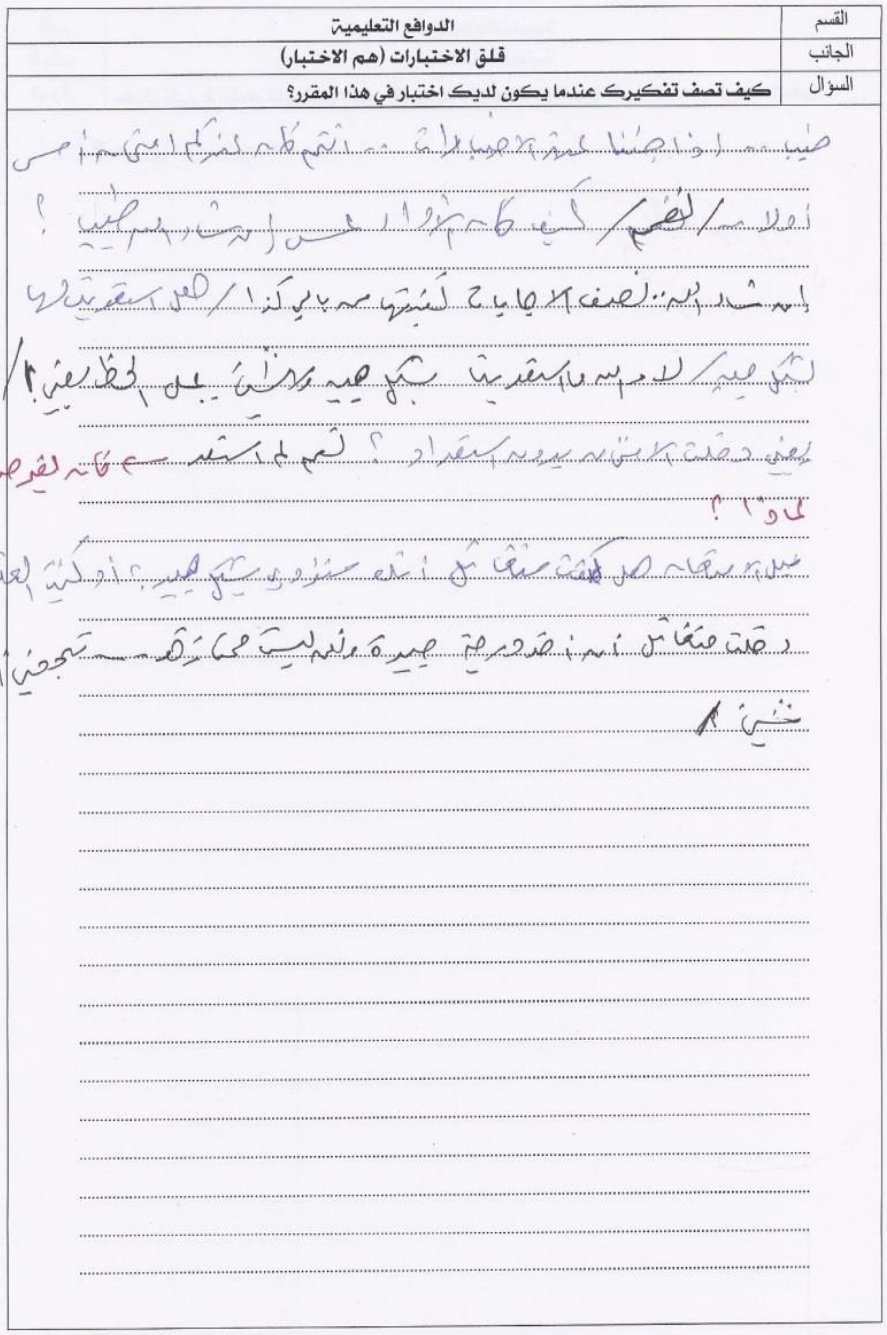
إذا أحسنت الاستفادة

عندي نجاح ضد الشغل

الساعة

17

القسم	الدوافع التعليمية
الجانب	قلق الاختبارات (هم الاختبار)
السؤال	كيف تصف تفكيرك عندما يكون لديك اختبار في هذا المقرر؟



القسم	الدوافع التعليمية
الجانب	قلق الاختبارات (المشاعر)
السؤال	كيف تصف مشاعرك عندما يكون لديك اختبار في هذا المقرر

طبيعي - بالنسبة لي عادي - هل أنت قلق أو عادي؟
لا شعور معين - لا قلق ولا شيء / لا شيء مقلق؟
لا لا /
سؤال مفتوح: كيف تدرس عن طريق سنة الكيمياء؟ مفيد أم لا؟
في الكيمياء دائماً تتحسس في ورقة خف الحرف عشرين أذاكر
ورشتين. ليش ما القديم هذا ولا أفهمه / في بعض حسبة كمان
في مثل الشرح - بس فرص طلعت صعبة -
مشكلتي في التدريس - لو في التدريس كامل حيث درس الأستاذ
هل أنت لا تستطيع التعامل مع هذا الموضوع؟ نعم - نصف
المقابل لا أفهمه - ولازم التدريس يكون أسهل حتى أخذ وتعطي
معي - والتدريس لا تستطيع - التدريس - شغلي
من طلع لأني حضرت - لازم يكون التدريس أسهل من أجل أن يعطي معاه
التدريس تدريس صعوبة إلى الأولاد ليس ما يفهم معاه؟ نعم لا بد يكون
المدرس أسهل أخذ وتعطي معاه مباشرة؟ نعم عن طريق بالنسبة
لي. أحياناً يعطي الشرح؟ في القاعة أشرح أنين حركات في الكم
صبي طالب أسهل التدريس مثل / كيف تصف سلوكك في القاعة الصف؟
في القاعة دائماً أخذ وأعطي مع المدرس في أسئلة - أسأل الذي أعرف قبلها.
هل تلك هذه قدرات في القاعة؟ نعم أكيد من أسئلة وكل شيء أسأل الأستاذ هذا.
الأستاذ أكرمت أنه يقطع - هل المشاكل الموجودة هو التفسير فقط؟ أنا أفهمه من شرح أسئلة
التدريس في نقطة معينة فلا أستطيع أن أسأل لأن التدريس لا يكون سهل -

هل تذكر مشاكلة أو موقف احتجت إلى سؤال ؟ لا أذكر في المقدمة الحيثية .

في الباقة الأسئلة نفعله في الكتابة من البحث -- لا هذه المرحلة لا يسمح أن نذهب

الباقة للقراء والدراسة — هل يفيدني ؟ لا -- ولكنه لا تحليل يفيد

الدوافع والأجيال

٣٠:٣٦ دقيقة

Appendix K: Consent letter for conducting the study at King Khalid University

KINGDOM OF SAUDI ARABIA
Ministry Of Higher Education
King Khalid University
e-learning Deanship

المملكة العربية السعودية
وزارة التعليم العالي
جامعة الملك خالد
عمادة التعلم الإلكتروني

بشأن : طلب الباحث سامي الشهراني

سعادة عميد كلية التربية **سلمه الله**

السلام عليكم ورحمة الله وبركاته

إشارة إلى إحالة سعادتكم رقم ٧٩٩ وتاريخ ١٤٣٤/٧/٢٣هـ المبنية على إحالة سعادة وكيل الجامعة للدراسات العليا والبحث العلمي رقم ٤٣٢١ وتاريخ ١٤٣٤/٧/١٧هـ بشأن طلب الباحث : سامي بن سفر الشهراني أحد مبتعثي جامعة نجران بالمملكة المتحدة من جمع البيانات المتعلقة ببحثه حول الأساليب والطرق التي يستخدمها الطلاب لتوجيه تعلمهم الذاتي في بيئات التعليم المدمج بجامعة الملك خالد.

أفيد سعادتكم بأنه لامانع لدينا من جمع الباحث للبيانات المتعلقة بموضوع دراسته.

سائلين المولى له التوفيق والسداد.

والله يحفظكم ويرعاكم،،،،

عميد التعلم الإلكتروني

د. عبدالله بن محمد الوليدي

الرقم : ٦٣/٢٠٦ التاريخ : ١ /٨/ ٣٤هـ المرفقات : ١٠ أوراق

أبها – ٩٦٠٠ | ☎ : ٢٤١٧٦١٤ | 🖷 : ٢٤١٨١١٥ | e-mail: eltc@kku.edu.sa

elc.kku.edu.sa

عبدالله جهاش

Appendix L: Ethical approval message

Groups | Help | Logout | Content Layout

hers | School | Notices | Library | Email | Programme

sign out | Alshahrani S.S.

Find Someone | Options

Your Ethics Submission (Ethics ID:5569) has been reviewed and approved

ERGO [ergo@soton.ac.uk]

To: Alshahrani S.S.

Actions

19 April 2013 19:05

Submission Number: 5569
Submission Name: Exploring the Way in Which Learners Regulate their Own Learning in a Blended Learning Course at King Khalid University in Saudi Arabia
This is email is to let you know your submission was approved by the Ethics Committee.

You can begin your research unless you are still awaiting specific Health and Safety approval (e.g. for a Genetic or Biological Materials Risk Assessment)

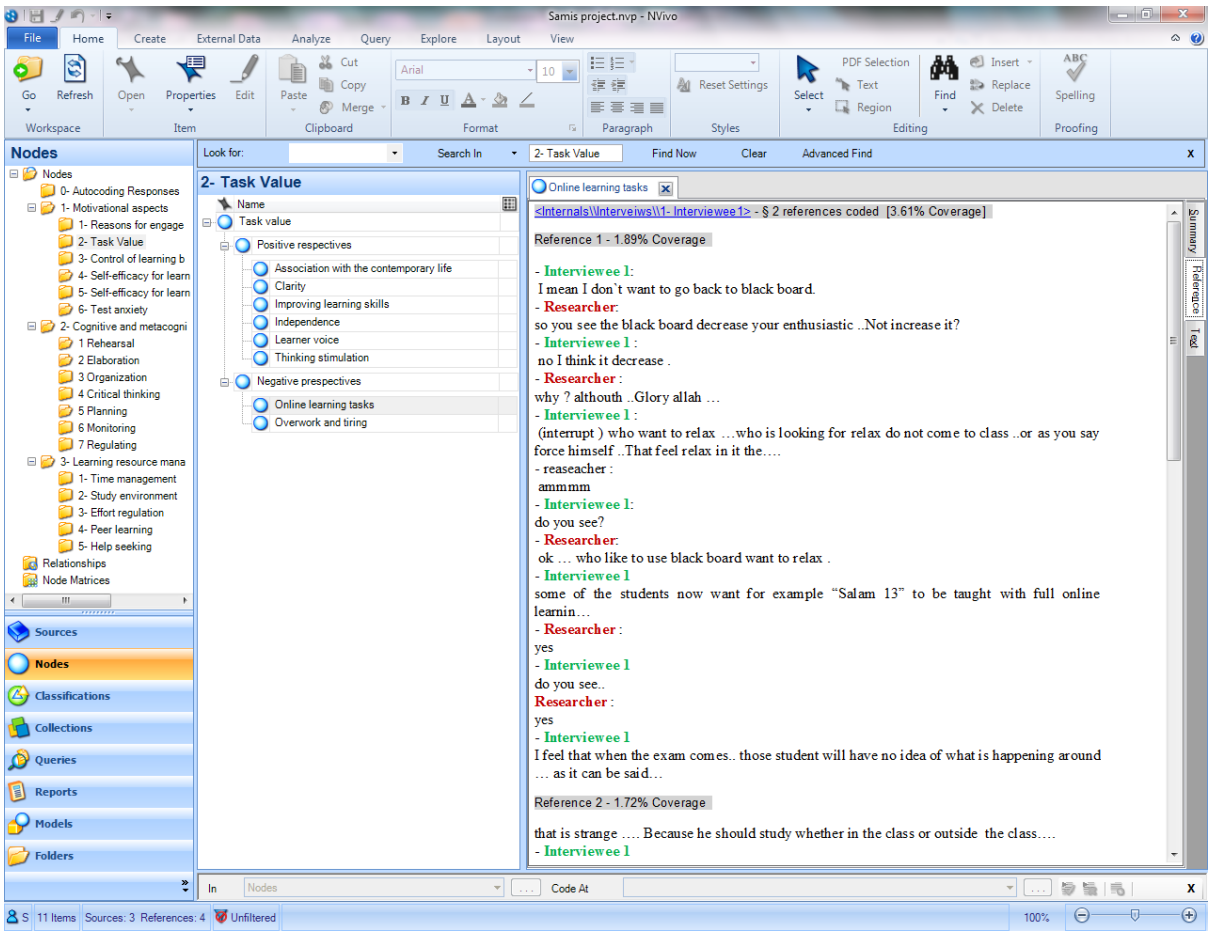
Comments
1.All issues I asked for have been addressed, so I approve this submission.

Click here to view your submission

ERGO : Ethics and Research Governance Online
http://www.ergo.soton.ac.uk

DO NOT REPLY TO THIS EMAIL

Appendix M: Screenshot of the Qualitative Data Analysis using NVivo



Appendix N: Academic majors, levels and duration of participants in interview sessions

The academic majors and levels of participants in the interview sessions

Participants	Academic level	Academic major	Interview duration	
			Munities	Seconds
PART-1	Level 3	Chemistry	39	02
PART-2	Level 3	Education	28	29
PART-3	Level 3	Arabic Language	36	38
PART-4	Level 3	Biology	35	30
PART-5	Level 4	Business management	25	20
PART-6	Level 3	Education	32	09
PART-7	Level 6	Accounting	24	47
PART-8	Level 3	Electrical Engineering	32	01
PART-9	Level 1	e-Marketing	39	06
PART-10	Level 5	Medicine	45	34
PART-11	Level 3	Accounting	29	08
PART-12	Level 3	English language	34	43
PART-13	Level 3	Chemistry	24	21
PART-14	Level 2	Business management	34	35
PART-15	Level 3	Accounting	35	15
PART-16	Level 5	Business management	28	29
PART-17	Level 3	e-Marketing	20	27
PART-18	Level 2	Physics	25	30
PART-19	Level 2	Mathematics	28	54
PART-20	Level 3	e-Marketing	22	37

Appendix M: Module outline

Section I: The definition of Islamic society: this includes the following themes:

The section themes	Number of weeks	The communication hours (The actual delivering)		
		In class	On line	Total
1- The concept of the Muslim community **2- The foundation of building Islamic society:** a. Human in Islam (in terms of creation and its place in the universe) b. The unit of origin- the unit of faith and unit of commissioning and penalty	1 week	1 hour	1 hour	**2 hours**
3- The approach to building the Islamic community: a. Commitments of following the Quran and the Prophet Peace be upon him. b. Islamic ethics, and their role in building social relations. c. Worship and its impact on the behaviour of the individual and society d. Regulate transactions on an Islamic basis. e. Promotion of Virtue and Prevention of Vice (highlighting the role of new media in this area)	1 week	1 hour	1 hour	**2 hours**
f. Applying Islamic law, and its impact on the individual and society and highlighting the concrete picture of what is found in Saudi Arabia. also addressing the suspicions raised in relation to penalty system in Islam	1 week	1 hour	1 hour	**2 hours**
4- The properties of Islamic community	1 week	1 hour	1 hour	**2 hours**
5- The means of strengthening social ties in Islam: a. The legislation of Zakat (i.e. a form of obligatory alms-giving and religious tax in Islam that is given to needy people) b. Neighbour rights c. Friday prayers and Eid celebration d. the participation in various social events (i.e. marriage, patient clinic, funeral) e. The disclosure of Salam (Islamic greeting) f. The encouragement of regular exchanges of visits	1 week	1 hour	1 hour	**2 hours**
6- The most important social problems: a. Adultery, slander and threats arising from them b. Deviation young people (the role of the family, the role of the mosque, the role of educational institutions, cultural organizations)	2 weeks	2 hours	2 hours	**4 hours**

Section II:

Family in Islam: this includes:

The section themes	Number of weeks	The communication hours (The actual delivering)		
		In class	On line	Total
1- **Family in Islam: this includes** a. The origin of the family in Islam b. The importance of family in building the society c. Women in Islam in comparison to other worldwide contexts	1 week	1 hour	1 hour	**2 hours**
2- **Introduction to marriage:** a. Standards for choosing in marriage b. Women who is permissible to be engaged with c. The legitimacy of engagement and its impacts d. Looking to the women to be engaged with and its limitations e. Reversing from the engagement and its consequent effects	1 week	1 hour	1 hour	**2 hours**
3- **Marriage and its objectives:** a. Definition of marriage contract b. The legitimacy of marriage c. The billers of marriage contract and its conditions	1 week	1 hour	1 hour	**2 hours**
d. The objectives of marriage: - Directing instincts in a manner commensurate with human stature - Achieve psychological serenity - Saving members of the community from Inappropriate sexual behaviours - Maintain birth control - Raising young people positively	1 week	1 hour	1 hour	**2 hours**
4- **Implications of the marriage contract:** a. The husband's rights b. The wife's rights c. The children's rights	1 week	1 hour	1 hour	**2 hours**
5- **Means of strengthening family ties:** a. Parents obedience b. Honoring kinship c. Preventing form the marriage of incest d. Relatives expenses e. Inheritance	1 week	1 hour	1 hour	**2 hours**
6- **The most important family issues:** a. Husband's responsibilities b. Marital problems and how to solve them c. Divorce: types, limits, and constraints d. Polygamy e. Parentage	2 weeks	2 hours	2 hours	**4 hours**