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THE IMPACT OF WEBSITE USE ON STUDENTS’
PERCEPTION OF THE STUDENT-LECTURER
RELATIONSHIP WITHIN HIGHER EDUCATION IN
SAUDI ARABIA

By

SAEED ALSHAHRANI

A thesis submitted to the University of Huddersfield
in partial fulfilment of the requirements for
the degree of Doctor of Philosophy

September 2013
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ACKNOWLEDGMENTS

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staff who expressed their happiness to voluntarily participate in the project. Close friends and colleagues at the universities who helped through the process of administering the survey questionnaires to the students.

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ABSTRACT

Many researchers have discussed the student-lecturer relationship in the classroom. These studies have concluded that the association between student and lecturer must be positive in order for each of them to benefit. Studies carried out so far have focused on the student-lecturer relationship and the impact of factors such as age, gender and the cultural background of the student or lecturer. Most of these studies have discussed the student-lecturer relationship in terms of the lecturer’s power in the classroom and classroom management. Previous studies have also discussed student engagement in the classroom and have shown evidence of how it impacts on student learning outcomes. Studies have discussed the positive impact of websites on students and lecturers’ performance along with improving teaching strategies. Previous studies have also shown the importance of the student-lecturer relationship and their academic engagement in the classroom. However, there are as yet no studies that have highlighted the impact of internet website use by students, as additional sources of information, in relation to their relationship with their lecturers and their academic engagement in the classroom. This study aims to investigate this impact from a students’ perspective. The impact of websites in this research focuses on and investigates social power in the classroom i.e. expert power and referent power and academic engagement i.e. academic self-confidence, academic reliance and connectedness. A mixed method approach was employed to collect the required data from respondents. This method included quantitative data to measure the impact and qualitative data to study the reasons behind the impact. To achieve these objectives, a questionnaire targeting undergraduate and graduate students was sent to 30 universities and educational organisations in Saudi Arabia. In total, 1361 valid responses were collected. Of these, 969 identified themselves as male, and 377 as females, while 15 did not specify their gender. Quantitative data was analysed using PASW and thematic analysis was used to analyse the qualitative data with results presented and discussed together. The findings of the study show that there is an impact on the student-lecturer relationship, when websites are used, in all tested criteria but at different levels. Results of this study show that the relationship gap between students and their lecturers is increasing due to website use by students. The results also show that websites have impacted positively on students’ academic engagement in the classroom. The author’s recommendations to reduce the negative impact of websites on student-lecturer relationship are provided at the end of this thesis.
## GLOSSARY OF TERMS

<table>
<thead>
<tr>
<th>Term</th>
<th>Abbreviation</th>
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<tr>
<td>Academic Engagement Form</td>
<td>AEF</td>
</tr>
<tr>
<td>Close-Ended Question</td>
<td>CEQ</td>
</tr>
<tr>
<td>Open-Ended Question</td>
<td>OEQ</td>
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<tr>
<td>Predictive Analytics Software</td>
<td>PASW</td>
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<td>Smart-Survey online software</td>
<td>SSOS</td>
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<tr>
<td>Teacher Power Use Scale</td>
<td>TPUS</td>
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<td>Student Instructor Relationship Scale</td>
<td>SIRS</td>
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<td>Ministry of Higher Education</td>
<td>MOHE</td>
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<td>Social Network Sites</td>
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CHAPTER 1: INTRODUCTION

Lecturer power in the classroom and academic engagement are two important elements in the study environment. Within higher education they are inextricably linked to each other. These two elements are not something tangible; they are based on students’ feelings and acceptance of the study environment. These feelings and acceptance are important factors that influence their performance and outputs.

1.1 The importance of the student-lecturer relationship

The student-lecturer relationship in the classroom is an important part of classroom management. In the classroom, the lecturer has power over the students due to the knowledge, authority and position that he/she has. Improving students’ relationships with their lecturers has positive and long-lasting implications for students’ academic and social development (D.L. Giles, 2009; Jones, Gaffney-Rhys, & Jones, 2011; Rimm-Kaufman, 2010). Merely improving student-lecturer relationship does not, however, achieve anything but those students who have a close, positive and supportive relationships with their lecturers attain higher levels of achievement than those students with more conflicting relationships (Adeyele & Yusuff, 2012; Lasky & Estes, 2009; Lessard, Poirier, & Fortin, 2010; Rimm-Kaufman, 2010). If a student engages in frequent communication with a lecturer, has a personal connection with a lecturer and receives more guidance and praise than criticism, then that student is more expected to become trustful of the lecturer. Such a student shows more engagement in the academic content presented to them, show better classroom
behaviour and is more likely to achieve academically. Therefore, positive relationships in the classroom attract students into the process of learning and promote their desire to learn assuming that the course material of the class is attractive and suitable (Rimm-Kaufman, 2010).

1.2 Internet technology development and new learning techniques

The increasing use of websites and associated technologies has created opportunities for improving learning methods and creating new learning techniques. Modern approaches such as e-learning, distance learning blended learning and online learning uses websites as a tool of communication and as a source of information (Harb, 2011). Before the advent of the internet website revolution, the lecturer used to be the main source of information for his/her students. Researchers have proved that the internet website revolution has impacted on student achievements and attitudes and has shown how the role and performance of the faculty has improved (D.L. Giles, 2009; Jones et al., 2011; Rimm-Kaufman, 2010). For example, studies have shown that internet technologies have changed teaching methods in the classroom, from the student-lecturer model to a teacher-facilitator model (Seale, 2007), progressively changing the role of the lecturer from being an information provider to an information organiser.
1.3 Research aim

This research was conducted with an aim to bridge the gap that was observed from previous studies. A comprehensive literature review demonstrates that none of the previous studies associated with relationship in the classroom have focused on external factors that could impact the student-lecturer relationship.

In general, researchers have widely investigated the student-lecturer power relationships in the classroom; however, these researchers measured different types of power in the classroom and compared the effectiveness of each of them. Their studies showed how the personality of either the lecturer or the students impacted on their relationship. Their findings were based on human factors such as age, gender and culture. This study has investigated external factors affecting the student-lecturer relationship, which is websites. Most of the studies that examined the impact of online resources on higher education systems were either too broad or multi-purpose (Al-Salem, 2005; Simsim, 2011) and did not pay enough attention to the students’ views of this relationship. This research focuses specifically on the personal and emotional aspects of a power relationship as well as engagement in the classroom from the students’ perspective. This research is also one of the few studies that have looked at the specific impact of websites. This research assesses the impact of students’ access to internet information and its impact on their relationship with their lecturer. It also emphasises students’ hidden feelings and personal associations with their lecturers, in the light of the existence of detailed information on the internet.

In Saudi Arabia, most of the studies in this field seem to be general or multiple-purpose and lacking a clear focus on the internet usage by students and lecturers. The reason for this may be the short history of internet usage in general and within the Saudi Arabian education
system itself. This research is novel in its precise focuses on specific aspects of internet website use, concentrating on the student-lecturer relationships, whereas other researchers have only shown the impact of websites usage on both lecturers and students. Although previous studies have offered a source of background information for this study, none of these studies had focused directly on the internet as a source of information or its impact on the student-lecturer relationship. Other researchers have shown the impact of accessing online information on both lecturers and students (Al-Ghaith, Sanzogni, & Sandhu, 2010; Altraounah, 2012; Alturki & Alfadaa, 2007; BritishCouncil, 2011; Sait, Al-Tawil, Khan, & Faheemuddin, 2008). This research focuses on the student-lecturer relationship rather than focusing wholly on the advantages of internet resources on the students and lecturers.

1.4 Definition of the research title

It is important to clearly define the elements in the title of this thesis before embarking on the research journey. “The impact of websites uses on the student-lecturer relationship within higher education in Saudi Arabia from students perceptions” The title consists of six elements; websites, student, lecturer, relationship, higher education and Saudi Arabia. Some of these concepts have numerous definitions, but for the purpose of this work the following are used. More detailed explanations on the uses of these concepts are provided in the literature review chapter.
**Impact:** this term measures the gap in the relationship between students and lecturers due to the access of internet website resources.

**Websites:** “Websites” was used in this research to refer to the internet and its contents, which include information or data that the students can reach and take advantage of for study purposes. The technical differences between these concepts are discussed in section 3.2.

**Student:** this term refers to learners who are at an undergraduate and graduate level and use the internet for study purposes. The terms trainee and learner were used as synonyms of “student” on some occasions, as they refer to the same person in the Saudi Arabian education system.

**Lecturer:** this term can be defined as “the person who provides guidance for knowledge and understanding to take place” as (Ollin & Tucker, 2012, p. 2) defined this term. “Teacher”, “tutor”, “trainer” and instructor in Saudi Arabia also refer to the same person. These terms were used in the lecturer review chapter to refer to the lecturer. The word “lecturer” in this study does not refer to a specific person (lecturer), rather to lecturers in general.

**Relationship:** It refers to the feelings of the students in relation to their lecturers in terms of their expert power and referent power.

**Academic engagement:** measures the impact of internet technologies on students’ engagement in the classroom in terms of academic self-confidence, academic self-reliance and connectedness.
1.5 Thesis structure

This work is organised into seven chapters excluding the abstract. This chapter is the introduction which is chapter One. Chapter Two: Conceptual framework. This chapter details the scope of the student-lecturer relationship and illustrates the theories surrounding as well as the origin of the relationship. Chapter Three: Literature review. This chapter investigates previous studies related to power and academic engagement in the classroom. Four research questions are drawn from the literature review. This chapter also reviews the nature of higher education, the student-lecturer relationship and the use of websites in Saudi Arabia. Chapter Four will explore the methodology and will present the research philosophy and illustrate the process of collecting the data. It will also discuss the instruments that have been used to collect the data. The chapter includes the analysis section, describing the manner in which the quantitative and qualitative data were analysed. The computer software used to analyse the data will also be discussed. Chapter Five is the results section, detailing and the explaining the quantitative and qualitative data results. Chapter six is the discussion where the previous studies and the results of this research are discussed. Chapter Seven is the final chapter, which will include three sections; conclusions, recommendations and further research. The conclusion section describes the relevant conclusions drawn from the results presented in the previous chapters. The chapter will also include the limitations of this study and potential areas for further work.
CHAPTER 2: CONCEPTUAL FRAMEWORK

This chapter outlines the study framework and the fundamental terminologies of terms used in this research. As the term relationship is wide-ranging and contains many aspects, this research will examine only two aspects of the relationship; the impact of websites on power relationships in the classroom and academic engagement in the classroom. In this study, power relationships in the classroom cover two bases of power, expert power and referent power. Academic engagement covers three aspects of academic engagement; academic self-confidence, academic reliance and connectedness.

2.1 Research Framework

The following sections explain the details of the research framework.

2.1.1 Power relationship in the classroom

In 1959, French and Raven identified five specific bases of social power which the teacher can exert in the classroom to influence students. These include expert power, referent power, coercive power, legitimate power and reward (French Jr & Raven, 1959; Mehra, 2004; Spencer, 2013) power. The word “power” refers to the influence of the lecturer on the students in the classroom (Dunne, Lusch, & Carver, 2010).

"Expert power is the ability to influence through special expertise, while Reference power is the ability to influence through identification. Coercive power is the ability to influence...
through punishment, while legitimate power is the ability to influence through authority. Reward power is the ability to influence through rewards” (Schmerhorn, 2011, pp. 313,314). The bases of power, as identified by French and Raven, are presented in figure 1 below.

![POWER RELATIONSHIP IN THE CLASSROOM](image)

**Figure 1: French and Ravens' five forms of power in the classroom**

These types of power are usually discussed together as they are associated with each other. This research focuses on expert power and referent power only. Expert power is based on the lecturer’s knowledge of a specific field and referent power is based on the lecturer's personal characteristics. These two bases of power are considered as social communicative behaviour and are referred to as a personal power source as they come from the personal feelings of an individual and are non-tangible (Schmerhorn, 2010). Expert power and referent power are considered communicative behaviours, associated with closer relationships and personal communication (O’Malley, Arbesman, Steiger, Fowler, & Christakis, 2012). The other forms
of power are organisation-based and are part of an assisted power, derived through position (Finn, 2012; Weller & Weller, 2001). These are called positional power sources and are considered as antisocial communication behaviours (Finn, 2012).

**What will be measured?**

**Expert power:** This part of the investigation focuses on how students’ information gained from accessing websites has impacted on their relationship with their lecturer as a knowledgeable person. **Referent power:** This part focuses on how students’ information obtained from websites, has impacted their relationship with their lecturer as a reference person.

2.1.2 **Academic engagement in the classroom**

Academic engagement in the classroom includes five dimensions as shown in figure 2. This research only covers academic self-confidence, reliance and connectedness. They are important dimensions of academic engagement in classrooms and according to (Coates, 2006), these benchmarks are independent; therefore each one can be assessed separately.
**Figure 2: Academic engagement dimensions in the classroom**

**Academic self-confidence**: The focus for this part of the research is on how student information is gained from using websites which has impacted their self-confidence.

**Academic self-reliance**: Student academic reliance does not necessary link to their self-confidence. Students may have enough confidence in their knowledge, but they rely on and follow the lecturer’s instructions as he or she is the one who guides them. This investigation focuses on how student information gained from using websites has impacted their academic self-reliance.

**Connectedness**: The investigation in this part of the research focuses on how students use websites to communicate with lecturers and how that use has impacted their connectedness with lecturers, either negatively or positively. The focus of this section is on web 1.0 communication, such as email messages. This section does not consider web 2.0 communications, which includes social network websites. The data for this study was gathered in Saudi Arabia, where web 2.0 has not yet gained ground in the higher education environment. Therefore, the connectedness section includes a subsection which aims to
investigate students’ views of using Web2.0 to interact with lecturers. It assesses the possibility of taking advantage of using web 2.0 in education from student perspectives.

Figure 3: Research framework

Figure 3 is the research framework, which focuses on the personal and emotional aspects of the power relationship and academic engagement in classroom. The power relationship and academic engagement in the classroom will be discussed and analysed separately. However, the connection between all aspects will be discussed at the end of the results chapter.
CHAPTER 3: LITERATURE REVIEW

3.1 Introduction

The world is aware of the significance of communication between individuals in order to share their information and experiences. To achieve this goal, there have been major investments in information technology. In the 1990s, websites became an essential part of education strategies either as a source of information or as a way to communicate (Gurpinar erol, 2009). Although the age of websites is fairly recent, it has had a noticeable impact on educational systems. The influence is often positive in terms of speeding up procedures and facilitating access to information (Harb, 2011). But from the other point of view, there are negative impacts that should be taken into account to maximise the benefits of websites usage (Barker et al., 2013).

Since this research focuses on the impact of internet websites on power in the classroom and academic engagement, this chapter will discuss previous studies that have investigated the two aspects. The chapter is divided into four sections. The first section is named terminology which explains the main terms used in the research. The second section is named student-lecturer relationship which aims to assess the relationship and discusses the factors that found have impacted on the student-lecturer relationship. The third section is named power in the classroom, which discusses the power in the classroom in general and focuses on expert power, referent power in the classroom and establishes the relationship between them. The last section in this chapter is named academic engagement which will
explore studies which are related to student academic self-confidence, self-reliance and connectedness including using social websites, which will be reviewed.

3.2 Terminologies

This section defines and explains the main terms related to this research. It provides a brief history of web technology, explains the differences between data/information/knowledge, and defines who the student and the lecturer in this study are. It further defines the terms “relationship” and “power in the classroom”.

Background of websites

The terms “websites” and “internet” have become household names and are always linked to each other although they have different meanings. In fact, some experts tend to confuse the two terms. The internet is a universal network connecting millions of computers, where a user who has permission at any one computer can access and obtain information from any other computer within the network. Websites are one of the more popular global network services on the internet and are sometimes referred to as web services (Shelly, Cashman, Wells, & Freund, 2008). “Websites” are the main method though which internet contents can be accessed. This technique can be local on a personal machine, a group of computers or globally where access can be obtained from any computer around the world, called internet websites. The term “web” comes from the expression World Wide Web (WWW) which also refers to accessing information globally.
In terms of internet website developments, there are four generations of the web to date. These are explained below.

**WEB 1.0**: Web 1.0 is the first generation of websites, which appeared in 1991. Kidd and Chen define it as "a system of interlinked, hypertext documents accessed via the internet" (Kidd & Chen, 2009, p. 318). In the initial use of web 1.0, users mainly used this technique to access data saved on different servers (computers) around the world. Web 1.0 is also known as static, read-only, and client-server web-based where users can access to data but are unable to interact directly with other users or modify the contents on this data.

**WEB 2.0**: Web 2.0 is the second evolution of the web. It appeared in 1999 (DiNucci, 1999). Due to rapid developments in the use of this generation of the web, it is difficult to define or explain it accurately (Giustini, 2006; Oreilly, 2007). However, metaphorically, Lincoln improved the definition of web 1.0 to explain what web 2.0 is. He described it as a web in which people can interact and participate, rather than just read (Lincoln, 2009). So, the fundamental difference between the previous version and web 2.0 is interactivity. The Web 2.0 is a dynamic way of interacting among users using a technique called web applications. Since 1999, users have become involved in and were able to participate and contribute to internet content, so the web concept is no longer “read-only”.

**Social network sites**: Social web is part of web 2.0 which has many known synonyms such as social web, social websites and social media. There are many definitions of social networks or social websites as defined by different researchers. However, in the context of web 2.0, Ellison described social websites as follows. They are web-based services that allow individuals to: (1) construct a public or semi-public profile within a bounded system;
(2) articulate a list of other users with whom they share a connection; and (3) view and traverse their list of connections and those made by others within the system (Ellison & Boyd, 2007). SixDegrees.com, which was set up in 1997, seems to have been the first social network site (Andrews, 2011; Ellison & Boyd, 2007). Social websites are mainly focused on individuals rather than businesses. Facebook, Twitter and Flickr are well-known examples of web 2.0 applications. Generally, those websites are used for exchanging social activities and tend to have a high level of use. For example, according to the Facebook website (2011) which was established in 2004, more than 500 million active users were recorded by the middle of 2011.

**Web 3.0:** Web 3.0, or the semantic web, appeared in 2006 in an attempt to make electronic devices more intelligent by enabling them to understand each other through web application communications (James, 2010). Understanding data is what distinguishes web 3.0 from previous versions. Web 3.0 not only allows humans alone to deal with web applications effectively, but also allows other modern devices such as mobile phones and PDAs to have their own applications that can communicate with other computers using web applications.

**The future of the web: (Web 4.0)** is also known as the “symbiotic web”. This version, however, is still in the process of being developed. The aim of the earlier versions of the web is to provide users with smart web solutions. Notice that the solutions already existed but the web presents them in simpler more artistic ways. The idea behind web 4.0 is that the web thinks of solutions for the users (TheHammersmithGroup, 2009).
The appearance of a new generation of the web does not mean the disappearance of previous generations; it means that there is a major shift from one concept and technique to another. Figure 4 shows that web 1.0 was popular between 1995 and 2002 and web 2.0 from 2000 and 2010. Although web 3.0 appeared in 2006, web 2.0 is still extensively used. Web concept has changed from being static; where content on websites is accessed by users without being able to make any changes, to being more dynamic, social and semantic.

**Data, information and knowledge:** Web resources can provide students with data and information but not knowledge. However, there has been confusion in relation to the use of these concepts for a very long time. **Data:** the definition of data by Finnegan and Willcocks (2007, p. 49) states "It simply exists and has no significance beyond its existence (in and of itself). It can exist in any form, usable or not. It does not have meaning of itself". **Information** is a collection of data that is given a meaning when it is connected together. **Knowledge** is a collection of data and information which can explain the process of...
information (Bellinger, Castro, & Mills, 2004). Knowledge is the understanding of the information and the ability to use them due to practice and experience. In this thesis the term internet contents refers to information that students can gain from websites, which becomes knowledge due to its application.

**Student and lecturer definition in Saudi Arabia:** The terms teacher, lecturer, tutor, trainer and instructor are a common concept in the classroom, where each one has its own definition. However, they share a common description which is “*the person who provides guidance for knowledge and understanding to take place*” (Ollin & Tucker, 2012, p. 2), which is applicable to this study as briefly mentioned in the introduction. On the other hand, the term student, trainee, learner are common terms in education. They also share a common function which is “*following a programme of learning*” (Ollin & Tucker, 2012, p. 2). In Saudi Arabia, these terms can refer to the same person regardless of their level of education. For example, in Saudi Arabia in the College of Technology the terms “trainee and trainer” and “tutor and learner” are used whereas in King Fahd University the terms used are “lecturer and student”. The word “lecturer” in the study does not refer to a specific person (lecturer) however the term “student” refers to students who are at the undergraduate/graduate level of education and use the internet for study purposes.
3.3 The student-lecturer relationship

Higher education

Prior to higher education, pupils are strictly dependant on their teacher in terms of gaining information and solving problems. Their skills and access to external information is very limited. Even their access to online learning tools in the classroom is selected by the teacher (Sandholtz, 1997). In general, the age at which students start their higher education is between 18 and 22. By this time, students become more independent as they have built skills that help them to search for information from other sources. In higher education, many methods of learning become available for the students via face-to-face, e-learning, distance learning and other methods, as the student becomes more independent. In most countries, higher education is managed by a government organisation, which draws the main strategy of the education system at this level. In Saudi Arabia the higher education system is managed by the Ministry of Higher Education, as detailed in section 3.6.1.

The student-lecturer relationship in higher education

The student-lecturer power relationship in the classroom has been studied since the 1980s, when a well-known series of studies about “power in the classroom” was conducted by Professor Richmond and colleagues. Most studies related to the classroom environment have been cited by at least one of these studies. The series investigated French and Raven's (1959) five bases of power in the classroom; expert power, referent power, coercive, reward and legitimate power. The chain of studies aimed to investigate teacher power in the classroom as well as issues related to this relationship, using the relative power measure (RPM). These
studies refer to similar research conducted using behaviour alteration techniques (BATs). Both RPM and BATs are instruments which can be used to measure power in the classroom.

In 1985, based on extensive research on student-teacher relationships in the classroom, Richmond introduced a model called “The General Model of Instructional Communication”. The model consists of six components. Four of the components focus on student-teacher communication in the classroom; teachers, students' perceptions of teachers' communication behaviours, students' perceptions of the teachers' source credibility and instructional outcomes (J.C. McCroskey, Richmond, Plax, & Kearney, 1985). Students' perceptions of teachers' communication behaviours is the main component related to student-teacher relationships in the classroom. It reflects the influence of teacher expert power and referent power in the classroom. Other components of the model are known as the teacher techniques, used to manage the students in the classroom and are beyond the scope of this research. The techniques mentioned above were associated with the teacher in terms of controlling the classroom, by exerting the personal power of the teacher rather than positional power.

Richmond (1985-1986) followed this study by a further research about management techniques to control power in the classroom and its influence on students and student achievements (Kearney, Plax, Richmond, & McCroskey, 1985; Plax, Kearney, McCroskey, & Richmond, 1986). He discussed these techniques and their impact on controlling student behaviours and how these techniques could impact student-teacher relationships. He found that the technique that he recommended in the general model of instructional communication is directly linked to the relationship with the students, which gives an indication of the importance of student-lecturer relationship considered particularly important in the mid-1980s.
Richmond (1987) published a research entitled “linking behaviour alteration techniques to
cognitive learning” which investigates how these techniques can be related to student
cognitive learning (Richmond, McCroskey, Kearney, & Plax, 1987). It focused on achieving
an effective learning by changing student behaviour. He found that this technique, which he
called the behaviour alternation technique, could improve the relationship with the students,
which in turn could lead to having better outcomes.

In the early 1990s, Richmond summarised previous studies highlighting the importance of
the five bases of power in the classroom, on learning outputs and some side effects of teacher
power in the classroom (Richmond, 1990). In 2004, Richmond discussed methods of
assessing the lecturer and the relationship with the students from a student perspective. These
are teacher temperament, student perception of teacher communication behaviours, student
evaluations of teachers’ source credibility and task attractiveness, and instructional outcomes
(J.C. McCroskey, Valencic, & Richmond, 2004).

Two years later (2006) a handbook about the importance of maintaining a good student-
teacher relationship was published by Richmond. The purpose of the handbook was to
synthesize the first three decades of research in instructional communication into a single
volume that could help both researchers and instructors to understand the value of
communication in the instructional process (Mottet, Richmond, & McCroskey, 2006). The
handbook focuses on human communication in general and more precisely on the student
teacher relationship in the classroom. It provides guidelines with examples on how to
manage this relationship in the classroom.
It could be concluded from the Richmond series that the teacher has / should have expert power over the students as a way of leading the classroom. Additionally, the lecturer should have referent power that makes the student refer to him or her as a role model. Richmond believes that a good relationship in the classroom is important in terms of managing the classroom but it is not necessarily related to student achievements, which differs from the opinion of other authors (D.L. Giles, 2009; Jones et al., 2011; Rimm-Kaufman, 2010). Richmond investigated the impact of teaching techniques on the relationships in the classroom. Based on this investigation he published a handbook on how to manage this relationship. All these studies and publications show the importance of maintaining student-teacher expert and referent power relationship in the classroom. Richmond studies are still widely considered valid as an infrastructure to the relationship in the classroom.

**Student-lecturer relationship rules and regulations in higher education**

There are two levels of rules controlling the relationship between the students and their lecturers. The first level is the rule which is related to human relationships in general but also gives the lecturer the role of parental responsibility in the classroom (Kaplin & Lee, 2006). The second level is the rules which are usually established by individual educational institutions in order to draw in the details of the role of the lecturer and the students in the classroom. These rules protect both the student and lecturer from misusing the relationship. The ethics ensure that the lecturer is in a position where students respect and obey him/her. They also ensure that the power that the lecturer has does not lead to any form of harm toward the students. This rule also gives the lecturer the leadership position in the classroom in order to apply the education policy in the institution. Based on the two levels of control, the relationship tends to be formal because of the position of the lecturer as knowledge deliverer / class leader and the student as knowledge recipient (Valiente, Swanson, &
Lemery-Chalfant, 2012). The power position of the lecturer is also supported by the culture in most countries (Sin, 2012; Zhan & Le, 2004). Professional ethics are also the principles that help to control the student-lecturer relationship in general and more specifically, study environment. It represents the students’ respect to the lecturer due to his/ her position and the knowledge that he or she has.

The nature of the relationship between the student and lecturer differs from one culture to the other (Alexander, Ellis, & Mendoza-Denton, 2007; Fusani, 1994; Roach, Cornett-Devito, & Devito, 2005; Zhan & Le, 2004). For example, Australian students believe that they and their lecturers are equal, apart from the fact that the lecturer has more knowledge (Zhan & Le, 2004). In China and India the lecturer has a parent-like responsibility to guide student’s lives, according to Zhan and Le (2004). American students have a very friendly relationship with their lecturers in general (Sin, 2012). In most Middle Eastern countries, including Saudi Arabia, the relationship between the lecturer and his/her student tends to be very formal (Abdulrahman & Khalid, 2009). This formality is based on the high level of coercive and legitimate power that the lecturer holds. It is the students’ feeling and belief that the lecturer has the ability to apply punishments on them (Scovetta & Ellis, 2013). This ability comes from the authority which has been given by the law or the culture to the lecturer to punish the student. This type of power is widely recognised as it has a negative impact on the relationship and student outcomes (Ezigbo, 2013; Januarti & Ghozali, 2013). However, in a narrower range, some students may see applying this type of power as a way that could lead to student success (Teven & Herring, 2005).
Factors that impact on the student-lecturer relationship

Student-lecturer relationship is mainly based on trust and respect. Student trust and respect for the lecturer comes from the fact that the lecturer is professional and capable of leading the classroom.

In general, the formality of the student-lecturer relationship is changing due to the many personal factors that are related to the lecturer (Symons, 2011). The strength of the relationship between lecturer and students is reflected by two main factors. First, personal background factors such as the ethnicity, religion, socio-economic status of students and lecturers (Maznevski, 1994; J.C. McCroskey et al., 2004; Zhan & Le, 2004), and the age and gender of both lecturer and student which also play a role in this relationship. This is confirmed by research comparing the relationship of Chinese students to US students and their relationship with their lecturers. Similar results were obtained (Goodboy & Bolkan, 2011). The second factor is the lecturer’s ability, such as the teacher's level of intelligence, content knowledge, pedagogical knowledge, communication competence and experience (Teven & Herring, 2005) which represent expert power and connectedness factors of the relationship.
Importance of student-lecturer relationship

There is divergence about whether a good student-lecturer relationship impacts or does not impact positively on student achievements. As mentioned in the summary of the Richmond studies (Richmond et al., 1987), he believes that a good relationship between the lecturer and the student does not necessarily improve their achievements. On the other hand, recent studies have confirmed that the student-lecturer relationship plays an important role in improving students’ performance and outcomes (Adeyele & Yusuff, 2012; Finn, 2012; Lasky & Estes, 2009; Lessard et al., 2010).

3.4 Power in the classroom

Like any other work environment, the classroom should be managed and controlled to ensure that the teaching process works as planned. According to Newton (2012, p. 17) “Power in leadership is the ability to define a situation, attitude, or goal. Followers ask their leader, “How do I think about this situation?”” The lecturer plays a similar role in the classroom. He/she has the power that enables him to perform this role on his students as a control in the classroom. Power in the classroom is a widely investigated area which focuses on how the classroom should be managed. As mentioned earlier in the first section of the conceptual framework, the lecturer has five types of power that he/she can use to manage the classroom; expert power, referent power, legitimate power, reward power and coercive power.

French and Raven’s hypothetical distributed the weight of the five forms of power is shown in table 1.
Mehra (2004) believes that the weighted bases of power can be distributed upon the lecturer’s needs to manage the classroom. Applying these bases of power is based on how the lecturer treats the students and builds his/her relationship with them. So far, the relationship between student and lecturer has received a great deal of attention by many researchers. Within the framework of this study, the focus is on the personal aspects of power which are expert power and referent power, so they will be discussed in the two following sections.

### 3.4.1 Expert power relationship

Expert power is the ability to provide another with the required information, knowledge or expert advice that comes from experience or education (Coon & Mitterer, 2008; Nazarko, 2004; Phillips & Gully, 2011). However, “information” in this definition refers to a similar type of power informational power (Katzenmeyer & Moller, 2001). In an attempt to distinguish between expert power and informational power Erchul and Martens explain:

> Expert power and informational power are similar and can be rather easily confused. In both types, B thinks, “I will do as A suggests because that is the best way to address this problem.” The critical distinction, however, is that with expert power, B thinks, “I don’t really understand exactly why, but A really knows this area so A

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<td>Expert power</td>
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**Table 1: Hypothetical weighted French and Raven’s power**
must be right”; with informational power, B thinks, “I listened carefully to A and see for myself that this is clearly the best way to address this problem (Erchul & Martens, 2010, p. 44).

However, based on the description of students’ mentality and the lecturer’s role in higher education, the researcher believes that the student is more likely to understand the reasons as to why the problem has been solved in a certain way. This is because the purpose of the lecturer is to clarify how to solve the problem rather than solve the problem themselves. Therefore, in the context of this study the concepts “expert power” includes the term “informational power” assuming that the student follows the lecturer but could or could not understand the information the lecturer provides.

If someone is recognised as an expert, people will count on his/her opinion and will be more likely to follow his/her leadership. When a lecturer has expert power, students behave as the lecturer wishes them to because they view the lecturer as someone who is good and knowledgeable and can help them to learn. This power comes from the lecturer’s knowledge of the content and/or expertise as an educator. Students are willing to do as he or she says because they recognise that he/she knows more than they do. Therefore, to achieve harmony in terms of exchanging knowledge in the classroom, the lecturer should have enough knowledge in a particular area that qualifies him/her to be a lecturer with most lecturers proving they possess expert power over their students (Bryson, 2012). In addition, the student must believe that the lecturer has both special knowledge and the teaching skills to help them acquire that knowledge (DuBrin, 2008; Dwyer, 2000).

The term “expert power” is a synonym of a well-known educational concept named “content knowledge” and both concepts have been widely investigated. Content knowledge is known
as “knowledge about the subject matter that is to be learned or taught in classroom” (Harris, Mishra, & Koehler, 2009, pp. 393,416). The lecturer content knowledge is the knowledge that expert teachers call upon (Pourshafie & Murray-Harvey, 2013). Similarity, expert power is mainly based on the knowledge and experience that the lecturer provides in the classroom.

Having and providing information is part of the teaching commitments of a lecturer as shown in figure 5 (Gess-Newsome, Lederman, & Science, 1999). Content knowledge or expert power is the most important component as it comes from the accumulated tacit knowledge that the lecturer has gained from the learning period and his/her experiences. The other factors represent skills that the lecturer can gain at any time. The lecturer expert power is important as it gives students the confidence, enthusiasm to learn and is also associated with students’ positive effective learning achievement and enthusiasm to learn (Cureton, 2012; Marshall, 2009; Najjumba & Marshall, 2013; Savage & Savage, 2009).

Figure 5: Shulman Model of Teaching (Shulman, 1987)
Factors influencing the expert power relationship

There are individual personal factors that could impact the expert power relationship regardless of the knowledge that the lecturer has. For instance, the level of the student-lecturer expert power is increased in conjunction with students’ education level (Jamieson & Thomas, 1974). Carli (1999) found that male lecturers are perceived as having greater expert power than females lecturers, a fact that is also supported by (Moshavi, Dana, Standifird, & Pons, 2008). Expert power is also influenced by the lecturer's experience, level of education and the place where he/she achieves his/her education. A lecturer having graduated with high grades is more likely to be considered to have expert power regardless of their ability to deliver this knowledge to the student. There is no evidence confirming that culture and faith background could play a role in students’ perspectives on a lecturer is expert power.

Student expert power

As lecturers have expert power because of the knowledge that they have, students also have expert knowledge that they gain from resources other than the classroom. Websites as a source of information have shown that students’ knowledge can be expanded and results in the achievement of better outputs (Asdaque, Khan, & Rizvi, 2010; Grace-Martin & Gay, 2001; Ilo & Ifijeh, 2010). Students’ knowledge from accessing websites leads them to relevant online information which may be comparable to the information provided by the lecturer and could be provided by well-known scholars, specialists or experts. The aim of this part of the research is to assess whether this indicates that the cognitive gap between students and lecturers is changing. From the review of literature on the expert power relationship, the following hypothesis and research questions will be used:
**H1:** The lecturer has enough knowledge and experience (Expert power) in a particular area that qualifies him/her to be a lecturer. Therefore, students follow his/her instructions and guide them as an expert and knowledgeable person.

**R1:** What is the impact of students’ access to websites resources on their expert relationship with their lecturers?

### 3.4.2 Referent power relationship

Referent power is based on an individual’s personal charisma. “People hold someone with referent power in very high regard and will do what they say based on their regard for that person” (Schwalbe, 2010, p. 349). It is the influence that people exercise because they believe in them (Walker, 2011). Referent power is also known as attractive power where the lecturer tries to influence students behaviours (Felix & com, 2011). Students could follow their lecturers’ instructions when they admire him, irrespective of the knowledge that he or she has. When students follow the instructions of the lecturer, it means that the students believe and share the same perspective as the lecturer. Referent power is a kind of respect that the student feels about the lecturer, as the student sees him/her as a role model.

**Factors impact on referent power**

Several studies have proven that this type of relationship could be affected by factors such as cultural differences (Merriweather & Morgan, 2013), and the lecturer’s personal charisma (Schwalbe, 2010), and is highly linked to the lecturer’s content knowledge (Chinomona & Ming-Sung Cheng, 2013). The gender and age of the lecturer also plays a role in the student-lecturer relationship (Guilfoyle, 2007; Tauber, 2007). Female students have reported higher
levels of referent power than male students (Carli, 1999). They identify with the lecturer and have a positive regard for him/her; they are also more willing to do as the lecturer says. This is the nature of the referent relationship that should exist between the student and the lecturer. Unlike expert power, studies confirm that culture plays a role in students’ feelings about their lecturer as a reference. Students could respect a teacher based on their knowledge and experience but not necessarily because they admire him/her as a person. Unlike the case in expert power, it is also assumed that female lecturers have greater referent power than male lecturers based on a woman’s personality and her characteristics (Bauer & Baltes, 2002; Eagly & Mladinic, 1989). However, this assumption is not supported by all researchers (Moshavi et al., 2008). Moshavi found that there is no significant difference between male and female lecturers’ referent power and confirmed that male lecturers have greater expert power than female lecturers.

Mentioned factors, gender, age and charisma are personal aspects that are related to either the student or the lecturer. Websites are also an external factor that could impact on this relationship. From the referent power relationship, the following hypothesis and research question were developed.

**H2:** Students normally follow the lecturer’s instructions because they admire him/her. They identify with the lecturer and have a positive regard for him/her; they willingly do as the lecturer says.

**R2:** What is the impact of students’ access to websites on their referent relationship with their lecturers?
3.4.3 Relationship between expert power and referent power

Student-lecturer expert power and referent power relationship are linked to each other. Lecturers’ knowledge is a main factor which influences the referent power relationship. Students refer, follow and admire experienced and knowledgeable lecturers (Lintner, 2008). Among the five bases of power, expert power and referent power are strongly associated with each other and a decent relationship between students and the lecturer is based on these two types of power in the classroom (Finn, 2012; Lintner, 2008; Richmond & McCroskey, 1984). These two types of power that the lecturer has also reflect on students’ motivation to communicate with the lecturer (Goodboy & Bolkan, 2011). Some studies have shown that students’ satisfaction is mainly associated with lecturer expert power and referent power (Delaney, Johnson, Johnson, & Treslan, 2010; Teven & Herring, 2005).

Although legitimate power, reward power and coercive power are position power that are used to manage the behaviour in the classroom, recent research claims that expert and referent power are more effective than other forms of power for managing the classroom (Chinomona, 2011; B. N. Smith & Hains, 2012).

The above mentioned factors confirm (Mehra, 2004) opinion about French and Raven’s hypothesis of the five bases of power distribution to manage the classroom. He recommends that the weight of the five bases of power should not be generalised, although he agrees that expert power and referent power are more effective. From the factors that influence the expert power and referent power of the student-lecturer relationship there are two reasons to support this theory. First, as stated above, there are many factors that could weaken the lecturers’ expert and referent power. These two types of power are strongly related to each
other and they are mainly impacted by the knowledge that the lecturer has. The fact that the lecturers’ knowledge is different based on individuals and their availability to find alternative sources of knowledge, makes the judgement of fixing expert power and referent power weighted a matter for reinvestigation. Second, culture plays a fundamental factor in these two types of relationship (Simon, 2000). To manage the classroom the lecturer might need to use the “positional power” when the “personal power” is not strong enough to influence on the students.

3.5 Academic engagement in the classroom

“Academic engagement is defined as student investment in learning and the desire to challenge oneself” (Haynes, Cannata, & Smith, 2013, p. 10). It is simply about how deeply students are involved in the classroom and the degree to which they are influenced by their ability to effectively make interactions, produce new ideas, decide when help is required and participate by ask questions (Ornelles & Black, 2012)

Academic engagement in the classroom is an important part of classroom management to ensure that students are well engaged and have no concerns that could impact on their study. Its importance comes from the fact that it is strongly linked to students’ achievement (Christenson, Reschly, & Wylie, 2012; Neghabi, Rafiee, & Islamshahr, 2013). Several studies have concluded that increasing student's academic self-confidence in the classroom leads to positive results on students’ achievement. These studies on the one hand have focused on the factors that help to improve academic self-confidence in the classroom, and on the other hand the studies have also examined the factors that negatively impact on
academic self-confidence in order to avoid these factors. Academic self-confidence, reliance and connectedness are important dimensions of academic engagement in the classroom (Coates, 2006). According to Coates, these benchmarks are independent and therefore each one can be assessed separately.

3.5.1 Academic self-confidence and academic reliance

Self-confidence is the sense of personal strength and a belief that you are worthy and talented (Masters & Wallace, 2010). Academic self-confidence refers to self-confidence in a specific academic subject such as mathematical ability or problem-solving skills (Nelson Laird, 2005). It has been proven that student’ academic self-confidence increases by accessing information from online resources. Studies show that using technology increases students’ academic self-confidence in the classroom (Chachra, Kilgore, Yasuhara, & Atman, 2009; Nelson Laird, 2005; Park, Lawson, & Williams, 2012). The increase of academic self-confidence because of these factors is greater amongst male students (Chachra et al., 2009; Kukulu, Korukcu, Ozdemir, Bezci, & Calik, 2012). Aldiedat & Eyadate (2008) found that websites have a positive impact on students’ academic self-confidence. However, it does not significantly impact on student achievement.

Academic self-confidence can also be influenced by personal factors like mood, health and psychological reasons or it can be influenced by external factors such as access to sources of information such as the internet and the media (Sellars, 1997). In this research, academic self-confidence investigation focuses on the impact of websites and measures how students’ knowledge gained from using websites has impacted on their academic self-confidence and how this impact has influenced their relationship with their lecturer.
**Self-reliance:** “*self-reliance is the condition of relying on our resources in order to accomplish any number of specific tasks and responsibilities that contribute to our liberation and independence*” (Johnson, 1969, p. 45). Students’ self-reliance encourages them to find alternative ways to solve problems in the classroom. Academic self-reliance is more often used in remote learning systems such as distance learning and e-learning. In these methods of learning students are required to rely on themselves to find the necessary information. In these methods of learning, students have less guidance because they have less contact with their lecturers. In the classroom methods of learning, the students are required to do some assignments and tasks by themselves but they can normally rely on guidance from the lecturer in the classroom. In both cases, reliance on the lecturer is still needed while he/she exists. Students rely on the lecturer’s knowledge as he/she is expected to provide them with the necessary information. Student academic reliance does not necessarily link to the self-confidence that the student has. Students may have enough confidence in their knowledge, but they also rely on and follow the lecturer’s instructions as they believe that he/she has the leadership in the classroom and is the person who has the final judgment in the class.

The following hypothesis and research questions were developed from a review of literature on academic self-confidence and academic reliance

**H3:** Websites have a positive impact on students’ academic self-confidence because they provide them with extra information that is required.

**R3A:** How has the use of web technology impacted on students’ self-confidence?

**R3B:** Does students’ self-confidence impact on their reliance on the lecturer?
3.5.2 Connectedness

Connectedness in an academic sense is recognised as students’ active engagement in the academic and social opportunities at their place of study based on their understanding that teachers care for them as individuals, as well as for their learning (British Columbia, 2012). Although this definition is true, within the purpose of this research, it is loose. The word “connect” could include many forms of communications; face-to-face, notice board or any other method of communication.

The term connectedness has become well known when using technology to interact with other people (Robertson, 1996). Therefore within this research connectedness is considered as effective use of online web technology for the purpose of communication between the lecturer and the student. Connectedness considers the backbone of the student-lecturer relationship as an important element of student academic engagement in the classroom (David Laurance Giles, 2008).

3.5.2.1 Using web 1.0

Using website technologies in communications is constantly evolving. Using emails is a one-to-one technique where the student communicates personally with the lecturer, which is web 1.0 application.

The nature of student-lecturer connectedness is closely linked to the level of contact and the relationship that the lecturer has with the student. It is also related to the lecturer’s character and acceptance in keeping a communication links with students outside of the classroom. Lecturers believe that their association with the student should not go beyond the classroom as it would require lecturers to undertake more work. This issue is more obvious when a
lecturer is associated with a high number of students. But, why do students prefer to communicate with their lecturer using web technologies? Waldeck, Kearney and Plax (2001) and Block (2002) classify the four reasons for communicating with the lecturer using websites technologies, namely; clarification, avoidance of travel, uncomfortable face-face meeting and for social reasons. Some other reasons such as making formal requests, providing excuses, and “phatic” communication have been added by (Bloch, 2002). According to Bloch, phatic messaging is about students trying to socialise with the lecturer by sending informal and unrelated course messages to him/her.

From the student’s view, communicating with the lecturer using websites is still beneficial to them. Social and personal issues are very important in student academic engagement in the classroom. When a student has a good communication channel with the lecturer, it instils trust and confidence in the student (Micari & Pazos, 2012). However, this is still a matter of contention as to whether good connectedness is beneficial to students’ outcomes or not (Micari & Pazos, 2012).

Away from the educational benefits, using internet web technology to keep students connected to the lecturer is important. In cases of urgent matters or updates regarding study issues, it is easier and quicker to use internet web technologies. For this reason students and lecturers are assigned with a formal email where they can communicate regarding study matters, rather than asking personal emails where there are less well defined boundaries of discussion.
3.5.2.2 Using web 2.0

Social network sites (SNS) which are part of web 2.0, have become more popular methods of communication. They are based on one-to-many communications. These applications were considered as entertainment applications at the beginning and for this reason some educational institutions still block these sites in their campus as they believe they do not benefit students (Bosch, 2009). Gradually, these applications have been providing more effective connectedness between people. Therefore, educational institutions try to take advantage of the popularity and efficiency of these applications by using them in the education field. Educational institutions try to use social networks as tools to share information and to improve communication.

The idea of developing the relationship between the student and the lecturer outside the scope of the campus to maximise the benefits of exchanging information is becoming more popular. It is known as student-faculty contact. It is about student-lecturer online interaction regarding study matters outside the walls of the campus (Wood, 2009). This idea has been found to be effective in terms of improving students’ motivation to learn (J. Wang, Doll, & Deng, 2010; Woodsworth & Penniman, 2012). The difference between the student-faculty contact concept and the concept of the social networking lies in the control of communication. Student-faculty contact is usually organised and controlled by the institutions while social websites are more open and have more flexible rules.

This part of the research will prove or deny the findings of previous research. In addition the research will provide reasons as to why SNS could be beneficial in education. None of the studies reviewed so far has investigated these reasons.
Lecturers’ views about interacting with the student using social network sites:

“A literature review of the use of Web 2.0 tools in Higher Education” is a study conducted by Conole and Alevizou (2010) which shows that the web has had a significant impact on all education elements; students, lecturers and the education system in general. The research also found that web 2.0 applications such as Facebook and Twitter (social network sites) have proven quite valuable to learners who strongly rely on them to share their academic experiences, discuss important topics and even make arrangements concerning their academic endeavours. But it is still unresolved question whether the better communication leads to better achievement or not.

It is a salient point that since the 1990s the ability of SNS to connect learners and other academic stakeholders has provided immense opportunities to positively transform the academic system (Browne, 2003; Mackaay, 1990; Odom, Jarvis, M’Randa, & Peek, 2013; Singh, O’Donoghue, & Worton, 2005). In particular, social network sites in learning institutions enable tutors to organise their schedules with less emphasis on time constraints, as it lessens the time taken to pass information to students and fellow staff members. This makes the delivery of education a friendly task that in the long run will positively transform the educational system (Manar I. Hosny, 2012). Related studies also confirm the benefits of using social websites to develop friendly relationships between students and lecturers.
According to Jones, et al., (2011), lecturers are optimistic about the benefits of using social network sites for communication, but they still have major concerns about their usage. The rule of communication in social websites is very different from their rule use in the classroom. Communication via social network sites is more open, friendly and enables the sharing of personal life activities. The majority of the lecturers are not willing to have this kind of relationship in the classroom. Jones, et al., (2011) examined academics’ views of using social networks with students. The lecturers’ views were expressed in objectionable tones as the following quotes show;

“I care for my students, but I want to maintain the boundaries, I am the lecturer, they are the students.”

“I really think that having to communicate with students via Facebook would really affect my own usage…some of my friends’ comments on my wall can be quite outrageous… I am a different person when I am not in lecturing mode”.

“You cannot be friends with someone you grade!” (Jones et al., 2011, p. 213)

They want to keep the level of power that they have in the classroom as there is no academic rule to control the relationship between “friends”.
Students’ views about interacting with their lecturers using social network sites:

Recent research has established that social network sites have very good acceptance amongst students and improve their interaction with their lecturers (Castañeda-Sortibrán et al., 2013; Lemos, 2013). These findings were from data collected from different countries including Saudi Arabia. This leads to a general observation that students’ attitudes regarding social networks in education are similar regardless of cultural differences. Students’ views about using social network sites in education to communicate with their lecturers are rarely discussed.

There are two viewpoints when investigating the use of SNS in education, the lecturers’ and the students’ views, and these are significantly different. Lecturers are concerned about losing their professional power when they open the social communication door to their students. Students’ views are part of findings of this research which detailed in results chapter.

There is an unbalanced effort in researching the possible use of social networks in the field of education. Current studies extensively focus on the lecturer’s view and their use of SNS in education. Two things become clear; first, discussing the divergence of views between students and lecturers is insufficient, second, to successfully manage the use of SNS in education, it is important to clearly identify the aim behind trying to engage social network sits in education system. Is this goal going to socialise the student-lecturer relationship or alternatively formalise the use of social SNS? These two issues need further investigation. This therefore gives way to hypothesis 4 and research question 4A and 4B.
**H4:** Having good communication between the lecturer and the students leads to a good relationship that makes students more engaged in the classroom.

**R4A:** What is the impact of web technology (web 1.0) as a communication tool on the student-lecturer relationship?

**R4B:** What are students’ opinions of using the social web (web 2.0) for communication with their lecturers?
3.6 Overview of research environment

This section explains the research environment in which the data were collected. It gives an idea about the higher education system and how internet web technologies have been used within students’ social life and within the context of higher education. As stated earlier in the chapter, the student-lecturer relationship differs from one country to another as mentioned in section 3.3. This section therefore provides the reader with the nature of student-lecturer relationship in Saudi Arabia.

3.6.1 Higher education in Saudi Arabia

Saudi Arabia is located in the Middle East with a surface of about 2,000,000 square kilometres and a population of 18.7 million citizens (CDSI, 2013). The Ministry of Higher Education (MOHE) is the organisation that controls the higher education system. The ministry was established in 1975 coinciding with the opening of the first university, King Saud University (KSU, 2011). According to the ministry statistics website, in 2013 there were 24 government universities, 29 private universities and colleges, and 8 other higher education institutions. In total there are 59,442 faculty members providing teaching to 1,206,007 students (MOHE, 2013).

The traditional approach of teaching has been used until the last decade (Alturki & Alfadda, 2007). As a modernisation policy of the ministry, modern technologies have become part of most universities’ teaching strategies. The number of educational organisations in higher education has been increasing dramatically; and by 2013 reached 192 in 2013 according to MOHE. The mode of teaching approach in higher education is a “Teacher-centred approach”
where students are associated with the lecturer in terms of seeking information (Alturki & Alfadda, 2007; Mansour & Alhodithy, 2007). Abebe described the teacher-centred approach as:

Teacher-centred approach is dominated by continuous teacher lectures while the students are passively following him. The teachers also act as all knowing and want to pour knowledge into students considering them as empty vessels. It is the impact of the way the teachers themselves learnt that can be reflected in their teaching-learning process. The teacher himself/herself accomplishes the planning, design, adjusting and delivering of the course for the students. The students do not have a say in the teaching–learning process (Abebe, Davidson, & Biru, 2012, p. 53)

This approach of teaching is considered not to be entirely containing negative outcomes. Chall and Adams (2000) claim that this approach of learning produces higher academic achievements than when utilising a more student-centred approach which is more democratic, because the lecturer shares control and decision-making with the students. This approach was widely used when the lecturer was the only source of information for the students and students’ knowledge was relying only on this source.

Distance learning and e-learning are examples of student centred learning where students and lecturers have a low level of contact. In Saudi Arabia distance learning and e-learning are recent approaches to teaching in higher education. This study focuses on the relationship within the classroom, which is still the key environment for teaching in Saudi Arabia higher education.
3.6.2 The student-lecturer relationship in Saudi Arabia

It is important to understand the student-lecturer relationship before embarking on investigating the impact of websites on the relationship. There are generally insufficient studies on the student-lecturer relationship in Saudi Arabia as stated earlier in section 1.3 and this therefore forms part of this research.

In general, male students are separated from female students in Saudi Arabia (El-Sanabary, 1994). The lecturer in the classroom is the same gender as that of the students. In case a lecturer from the opposite gender is required; usually voice communication technology is used where there is no face-to-face contact. So within the higher education system in Saudi Arabia there is no relationship between male students and female lecturers and vice versa. Previous studies show that there is a difference between male students and female students’ attitude towards the use of technology in education (Al-Jabri, 1996). Al-Jabri found that the male students are more confident in their ability to learn technology but less anxious to learn technology than female students. Al-Jabri also found that male students are more interested in computers, and enjoying working with computers more than female students. Because the gender division in Saudi education system and because the ability and interest of each gender is different, this research considered this factor and compared gender differences in all results.

Religiously and culturally the lecturer in Saudi Arabia has been given high level of respect (Karlsson & Mansory, 2008). The lecturers have also been given coercive and legitimate power (positional power) that allows them to control the classroom. Nevertheless, according to research conducted by Abdulrahman and Khalid (2009), between 55.4% and 65.1% of undergraduate students consider that they have a good relationship with their lecturers, although this relationship tends to be very formal. The students in this research also observed
that the quality of the relationship is very much linked to students’ grades; a good relationship with lecturers is equated to good grades.

### 3.6.3 History of web applications in Saudi Arabia education

“Globalisation is an autonomous phenomenon, driven by advances in technology and communications” (Co-operation & Development, 2002, p. 4). The influence of globalisation can be seen universally, to varying degrees. Access to the internet is considered one of globalisation’s key factors; therefore, adapting and using websites applications in some countries such as Saudi Arabia seems to be a challenge against politics, religion, society, and culture. The use of web applications in Saudi Arabia is fairly recent. It has coincided with the appearance of web 2.0 technology in 1999 (Simsim, 2011). However, according to Simsim (2011), the number of web application users had exceeded 7.7 million by 2010 which gives an indication of the country’s fast growing use of the internet. In Saudi Arabia websites access is supervised and managed by Communication and Information Technology Commission (CITC) and websites are filtered by King Abdulaziz City for Science and Technology (KACST).

Generally, the invention of internet web technology has created massive opportunities for improving learning methods as mentioned earlier in section 1.2 of this report. The existence of the web 1.0 has made a significant contribution to creating new learning methods. The theory of modern teaching approaches, such as e-learning, distance learning and online learning is based on online web systems (Harb, 2011). These teaching approaches first appeared before the advent of later versions of websites, web 2.0 which means that web 1.0 is the infrastructure of online learning. The first e-learning system was set up in the early
1990s (Gurpinar erol, 2009), which means that web technologies have been used in education since they first appeared. For example, e-learning, distance learning and virtual learning environments which are based on web technologies, which give educational institutions the opportunity to share and distribute their knowledge and materials to students around the world. Students are able to study in different parts of the world without being physically present.

In Saudi Arabia, Sait and Al-Tawil conducted a series of statistical studies that illustrate the percentage of internet web usage in different categories and the impact of it on Saudi Arabia’s social perspectives (Sait, Al-Tawil, Ali, & Ali, 2003; Sait, Al-Tawil, Sanaullah, & Faheemuddin, 2007). These series of studies aim to improve the infrastructure, based on what the websites can provide for in the educational field as supported by the government. Al-Tawil claims that he and his team have conducted the first novel research to examine the effects of the internet resources on teachers and students in Saudi Arabia (Sait et al., 2003). This study focused on the impact of the internet on higher education, providing an overview of the use of the internet in Saudi Arabia among gender and age and the impact of using the internet on student and lecturer performance. The outputs from this study illustrated four valuable issues. First, using websites resources has improved student and lecturer performance. This issue is also supported by (Al-Shawi, 2006). Second, there are gender differences pertaining to the number of internet users in Saudi Arabia. Third, the impact of websites on society when comparing negative and positives is not significant. Fourth, the government plays a major role in controlling the impact of websites on Saudi Arabian society.
There is a sign that websites could potentially change lecturer roles, as technology in general has forced the teacher to alter the way of teaching. Modern technology, such as computers and other electronic devices in Saudi Arabia, have forced lecturers to change their traditional tasks (Seale, 2007). They are gradually changing their teaching methods from a teacher-lecturer model to one which is more of a teacher-facilitator model. The study also recommends how lecturers and students should undertake this change. Similarly, websites could play a role in improving the teaching method, if it has been used effectively.

3.6.4 Social network sites in Saudi Arabia

The use of social network sites in Saudi Arabia can be divided in two stages. In the first stage, some concepts of social networks seem inconsistent and related to religion, politics or culture (Rubenstein, 2009). For example, for religious and cultural reasons, contact with non-related members of the opposite sex is very limited in Saudi society (McElroy, 2008). However, 27% of those who browse the internet do it for communication purposes (CITC, 2011). This factor is not taken into account in social websites. In Saudi Arabia, the use of social networks can be divided into two categories; first- the use of internet web applications for communication such as voice, text and video calls as they cost less compared to communication methods. Most internet web communication applications have become popular in the Saudi Arabia since the start of using web 2.0. For example, Skype, MSN and other applications are widely used. Second, the use of internet web for sharing social activities for example Facebook and Twitter.

In the second stage, using social network sites has become very common and with no restrictions. According Thesocialclinic (2013), Facebook Twitter and YouTube are the most
famous examples of social websites in K.S.A. Currently, these social network applications play a major role in politics which was not anticipated because web pages that represent a political threat are usually blocked (Aneja, 2011). Table 2 shows some facts about the most used social network applications in Saudi Arabia according to Thesocialclinic (2013).

<table>
<thead>
<tr>
<th>SNS</th>
<th>Latest figures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facebook</td>
<td>• 6 million users, 2 million use FB mobile applications</td>
</tr>
<tr>
<td></td>
<td>• 3rd Visited website</td>
</tr>
<tr>
<td>Twitter</td>
<td>• 3 million users,</td>
</tr>
<tr>
<td></td>
<td>• 6th Visited website</td>
</tr>
<tr>
<td></td>
<td>• leads the world in its growth rate 3,000% from 2011 to 2012</td>
</tr>
<tr>
<td>YouTube</td>
<td>• More than 90,000,000 videos are watched daily, which is more than any daily YouTube video viewership number worldwide.</td>
</tr>
<tr>
<td></td>
<td>• grew more than 109% from 2011 to 2012</td>
</tr>
</tbody>
</table>

Table 2: Most used social network sites in Saudi Arabia (Thesocialclinic, 2013)

The widespread use of social network sites on mobile technology has also increased. For example, table 2 shows that six million users access their social network sites through their mobile system. This trend shows that social network site use has changed from limited interactions with applications such as Msn and Skype to more social applications such as Facebook and Twitter.

Some of these applications/websites are specially designed for mobile users only, such as WhatsApp, Tango, Viber and others. These applications rely on sharing information based on mobile number messaging applications rather than an e-mail address which is the case with applications/websites such as Facebook and Twitter.
Today, these social media tools have become a strong voice not only in social life but in official communication as well. Many government organisations such as ministry of interior and ministry of foreign affairs effectively use social media websites (MOFA, 2013; MOI, 2013). When organizations such as these request the public to contact them via social websites, it means that there is a wide range of people who are interested in using social media to communicate. This also indicates that this type of communication has become official and not for entertainment only. Published information in social websites is taken seriously and the person could be prosecuted as a result of misuses of social media (Thomas, 2013).

3.6.5 Social network sites in Saudi Arabian higher education:

In Saudi Arabia, the majority of university students use social network sites (Aljasir, Woodcock, & Harrison, 2012; HAMDAN, 2011). However there is no evidence to show whether this was also done officially as a communication method between the students and lecturers in the classroom. Some studies conducted to examine the possible effective use of web 2.0 in the Saudi Arabia higher education system found that web 2.0 does not have an impact on student achievement (Almohaea, 2008). A more recent study found contradictory results. Research conducted by Alotabi (Alotabi, 2013) on female university students in Saudi Arabia examined the effectiveness of social network sites on academic achievement and found that using Twitter as a tool in classroom had a positive impact on students’ achievements. The two differing results could lead us to say that in the period between 2008 and 2013 the impact of using web 2.0 on students’ achievement may have changed because its image had changed and its popularity had increased. This research highlighted the obstacles that could be faced by using social websites in education. For example, awareness
has been raised amongst lecturers about how the internet social network sites can help in education (Alotabi, 2013). Additionally, awareness has been raised on legislation that controls the student-lecturer relationship within the use of social network sites (Almohaea, 2008).

Although the student-lecturer relationship in Saudi Arabia is formal, students still feel that this relationship is good. In addition, although websites are fairly recent, they have become widely popular and the number of internet users has dramatically increased. There is a limit on the use of websites for the purpose of seeking academic information. There are no figures to show the impact of the use of internet website usage on the student-lecturer relationship, but there are some figures that show the impact of the websites on the students’ achievements.
3.7 Summary

Related research on the student-lecturer relationship can be summarised as follows. First, the relationship between student and lecturer varies from one country to the other based on the country’s culture. However, it is still controlled by a different type of power that the lecturer has in the classroom. Second, in general it is important to keep a good relationship between students and lecturers, as this factor impacts positively on study outcomes and is a main factor in classroom management. Expert power and referent power that the lecturer has plays a vital role in managing the classroom over other forms of power. Such powers are closely associated with each other and are considered the most effective forms of power in the classroom. Third, a good level of students’ self-confidence and self-reliance helps students to become more engaged in the classroom. Students’ self-confidence increases with subsequent access to internet information. There is no doubt that academic self-confidence impact positively on student outcomes. Fourthly, connectedness, which refers to student-lecturer closeness, is an important factor that helps students to be engaged in the classroom. The lecturer should ideally have good communication with their students and therefore contribute to a good relationship. However, this good relationship does not confirm whether it has a positive impact on students’ achievements. Fifth, there is a lot of research pertaining to the use of web 2.0 in education and the results of these studies assume that the social web could help with improving student-lecturer connectedness. Currently, there is no evidence that social websites have been used officially in education. Sixth, the relationship between lecturer and student in terms of expert power and referent power are influenced by many human factors belonging to either the lecturer or the students. Self-confidence, self-reliance and connectedness as academic engagement elements have also impacted students as well as the student-lecturer relationship. The following research questions are the result of the
review of previous studies about student-lecturer relationship in the classroom and factors that could influence this relationship.

**R1:** What is the impact of students’ access to websites resources on their expert relationship with their lecturers?

**R2:** What is the impact of students’ access to websites resources on their referent relationship with their lecturers?

**R3A:** How has the use of web technology impacted on students’ self-confidence?

**R3B:** Does students’ self-confidence impact on their reliance on the lecturer?

**R4A:** What is the impact of web technology (web 1.0) as a communication tool on the student-lecturer relationship?

**R4B:** What are students’ opinions on using social web (web 2.0) for communication with their lecturers?
CHAPTER 4: METHODOLOGY

The purpose of the study was to investigate the impact of websites on the student-lecturer relationship and to justify the impact from students’ perspectives. The methodology chapter contains a review of the methods, their design and suitability to be applied in this research. It will also demonstrate how the research sample was selected and how the data was processed.

4.1 Research philosophy

The following section gives a brief description of the philosophy of this study. Figure 6 illustrates the most common concepts that any researcher should consider before embarking on their research work. Each concept is briefly described to give the reader an idea of the researcher’s perspective on this study.

![Figure 6: Research design](image-url)
4.1.1 Study reasoning

The mode of this research is inductive in its nature. Inductive research usually explores a phenomenon to identify facts associated with it. This is why it is also known as conjecture reasoning. It aims to achieve a better understanding of a specific phenomenon. It is more general and exploratory at the beginning before ending up with a specific theory that is found after analysing an existing hypothesis. Inductive reasoning is a process of reasoning whereby a general explanation results from a series of observations (Karleskint, Turner, & Small, 2009). In this research there are five hypotheses that came from exploring current studies related to the three aspects of higher education, the student-lecturer relationship, power in the classroom and academic engagement. At the end, the study is seeking a specific fact, which is the impact of students’ access to websites on these aspects and the reasons for this impact. The objective of this study is not to solve a problem or to prove a theory; however, from the results of the study recommendations to been included have been recognised.

4.1.2 Research categories

This is exploratory research according to the definition of exploratory research by Sundqvist (2011, p. 11). It noted that “exploratory research is conducted into a research problem or issue when there are very few or no earlier studies to which we can refer for information about the issue or problem”. From the literature review there are indeed limited studies that address the issues related to this study. The existing studies focus on the impact of websites on the students, lecturers, and classroom environment. The researchers have also widely investigated human personal impact on the student-lecturer relationship. This research therefore explores the impact of websites as an external phenomenon which might impact on
the student-lecturer relationship. From the literature, there is an indication that recent research has not given enough attention to this factor.

4.1.3 Study mode

The research is mainly fieldwork as the researcher gathers data from a real environment. However, previous studies have helped in establishing what has been investigated in this area. It is, however, agreed that fieldwork research should end with the deskwork concept as the researcher should analyse the gathered data and write them down as results of the research (Seltzer, 2010).

4.1.4 Research philosophy

The research is basic research since the research does not aim to solve existing problems nor prove or deny theory, but instead to improve a situation, as is the aim with basic research (Fitzpatrick & Kazer, 2011). The research seeks to examine the social relationship between two elements lecturer and student which highlights an issue that could improve the situation in the classroom.

4.1.5 Research paradigm

The research uses a mixed method approach for gathering data. A questionnaire containing a group of close-ended and open-ended questions was used. Each group of the close-ended questions, which is a quantitative method of collecting data, was followed by an open-ended question which is a qualitative method. This type of questionnaire is called an exploratory
questionnaire as the open ended questions seek to explore extra information from the respondents.

4.2 Study design / research planning

This is exploratory research which has two aims: (1) to investigate the impact of websites on the student-lecturer relationship, and (2) to find out the reasons behind the impact. Therefore, there is a need for two methods to gather the data. In the first method, statistical data is required to present the gap in the relationship. In the second method descriptive data is required to explain the reasons.

A questionnaire has been used in this study to gather the necessary data in the first method. Studies that aim to measure human relationships usually use a number of different methods of investigation, especially in the field of education. Theoretically, there are two reasons behind using a questionnaire in this study. The first reason is to achieve a high number of participants which is required for this study (Kelly, Harper, & Landau, 2008). In this research, and for the purpose of generalising the results within the country, a high number of participants were needed as mentioned in section 4.8. The second reason was anonymity: honesty is a fundamental reason for choosing a questionnaire rather than a face-to-face approach. To improve honesty, the questionnaire provided anonymity in this research for the students’ personal feeling and emotions which is what the study was looking for. The researcher was perceived as a lecturer which might have impacted on the students’ sharing of information because this type of relationship between the researcher and participants could
influence on the results (Kenett, Kenett, & Salini, 2011; Lyon, Möllering, & Saunders, 2011).

<table>
<thead>
<tr>
<th>AIM OF THE STUDY</th>
<th>USED METHOD (S)</th>
<th>*INSTRUMENT</th>
<th>LEVEL</th>
<th>FOCUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Examines interaction between lecturer and learners engaged on a master Degree in Education delivered online (Browne, 2003)</td>
<td>In-depth interview: Staff Questionnaire: Students Cyber ethnography: Staff &amp; students</td>
<td>(SIRS)</td>
<td>University</td>
<td>Personal relationship culture</td>
</tr>
<tr>
<td>Investigates the differences in interpersonal relationship between the lecturer and the students (Zhan &amp; Le, 2004)</td>
<td>Tell Stories: Staff interview: Staff Questionnaire: Staff</td>
<td>various levels colleges</td>
<td>Personality</td>
<td>Interpersonal behaviour</td>
</tr>
<tr>
<td>Examine the relationship between formal teacher characteristics, interpersonal teacher behaviour (Van Petegem, Creemers, Rossel, &amp; Aelterman, 2005)</td>
<td>Questionnaire: Staff Questionnaire: Students</td>
<td>(QTI) colleges</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Investigated the relationship between the student and the lecturer (Fisher, Fraser, &amp; Kent, 1998)</td>
<td>Questionnaire: Staff</td>
<td>(QTI) colleges</td>
<td></td>
<td>Interpersonal behaviour</td>
</tr>
<tr>
<td>Impact of lecturer power on student-lecturer relationship (Taibi, 2006)</td>
<td>Experiment: Staff Questionnaire: Students</td>
<td>University</td>
<td>Distance power</td>
<td></td>
</tr>
<tr>
<td>Understand of student and teacher connection (Gillespie, 2005)</td>
<td>Review of previous researches</td>
<td></td>
<td>Knowledge Trust – Respect Mutuality</td>
<td></td>
</tr>
<tr>
<td>Investigates student-lecturer relationship in private in public universities (comparison) (Chepchieng, Mbugua, &amp; Kariuki, 2006)</td>
<td>Interview: Staff Questionnaire: Students</td>
<td>University</td>
<td>Satisfaction</td>
<td></td>
</tr>
<tr>
<td>To measure lecturer and student relationship (Creasey, Jarvis, &amp; Knapcik, 2009)</td>
<td>Survey: Students Questionnaire</td>
<td>(SIRS) (MSLQ) University</td>
<td></td>
<td>connectedness anxiety</td>
</tr>
<tr>
<td>Exploring the teacher-student relationship (D.L. Giles, 2009)</td>
<td>Interview: Staff Tell stories: Staff</td>
<td>University</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Take up the theme of activism in student-tutor Relationships and explores a number of personality correlates (Cohen, 1972)</td>
<td>Questionnaire: Students</td>
<td>(API) (GPP) College</td>
<td></td>
<td>Active/passive relationships</td>
</tr>
<tr>
<td>Explored the lecturer-student relationship (Mji &amp; Kalashe, 1998)</td>
<td>Questionnaire: Students</td>
<td>(API) University</td>
<td></td>
<td>General relationship</td>
</tr>
<tr>
<td>Examines students' attitudes (Williams, 1992)</td>
<td>Questionnaire: Students</td>
<td>(API) university</td>
<td></td>
<td>Analyse students' desire student attitudes</td>
</tr>
<tr>
<td>Explores the use of social networks for student and faculty communication from a lecturer perspective (Jones et al., 2011)</td>
<td>Interview: Staff Observation: staff observed students</td>
<td>University</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Improve and assess student-lecturer relationship (Rimm-Kaufman, 2010)</td>
<td>Questionnaire: Students Survey: validity</td>
<td>(STRS) (TSRI) Young students</td>
<td></td>
<td>Conflict – Closeness Dependency Teachers’ satisfaction</td>
</tr>
<tr>
<td>Investigate student-teacher relationship (Leitão &amp; Waugh, 2007)</td>
<td>Questionnaire: Students</td>
<td>(TSR) Young students</td>
<td></td>
<td>Connectedness Communication</td>
</tr>
</tbody>
</table>

*see instruments abbreviation list in table 4

Table 3: Examples of the use of ready-made instruments
Therefore, the questionnaire was used to ensure that the student can freely provide their thoughts, which cannot be achieved by using other methods of collecting data, such as focus groups or interviews. Particularly, the questionnaire for collecting data has been widely used for collecting social and educational data as shown in table 3 above. Questionnaires were the main method of research used in similar studies in the same field.

4.3 The mixed method research approach

Since the study required two methods of collecting data, a mixed method approach was employed to collect quantitative and qualitative data. The qualitative approach of collecting data is widely used in educational research. It offers a profound understanding of matters that are impossible to be achieved quantitatively (Rubin & Babbie, 2010). There are several benefits of combining more than one technique for gathering data such as credibility, validity, confirmation and additional information (Singh et al., 2005). For this research qualitative data was collected to identify additional information justification.
In this research, using in-depth interviews was avoided, as this was seen to limit valid responses from participants (Kenett et al., 2011). In particular, engaging in face-to-face interviews has been shown to influence results. Alternatively, open-ended questions were added because they give participants more freedom in terms of providing more information and justifying their feelings about a given issue or response from the questionnaire as required (Welch & Bonnan-White, 2012). In so doing, researchers can have a better idea of the informants’ actual feelings on the proposed subject. In contrast, given the simplicity and limitation of the answers, closed-ended questions may not give the interviewees choices that reveal their true perceptions (Fleischmann, 2008; Kenett et al., 2011). These types of questions do not enable the respondent to explain their case, as they do not have an understanding of the question or in case they do not have an opinion regarding the subject.

The questionnaires mix open and closed questions via a semi-structured questionnaire.

Table 3 summarises approaches this research area from the perspectives of authors. Most researchers in this field use questionnaires as the main tool to gather data along with other qualitative methods for the purpose of getting more information from the participants, or to confirm the quantitative data.
4.4 Questionnaire structure

From the above examples in table 3 and 4, designing a questionnaire based on well-known instruments rather than creating a new one from scratch is a more successful and effective approach. Therefore, the researcher decided to design the research questionnaire based on adapting ready-made instruments. All other possible instruments could be useful but the critical factor was in deciding which instruments were more suitable to gather targeted data. Although all the instruments have high validity and reliability, they need testing to ensure that they are suitable for a certain purpose. The structure of the questionnaire and instruments used are shown in figure 7.

![Figure 7: The questionnaire diagram](image)

Instruments:
TPUS: Teacher Power Use Scale
AEF: Academic Engagement Form
SIRS: Student Instructor Relationship Scale

Q-11 (explains I-7)
Q-13 (explains I-6)
Q-15 (explains I-6)
Q-17 (explains I-1)
Q-19 (opinion web.2)
The questionnaire was created from a number of different standardised instruments. It contains six groups of items, whose variables are named as; General information, Expert Power, Referent Power, Self-confidence, Reliance, and Connectedness. Each variable was tested by a list of items preceded by a statement (question) to guide the participant. Close-Ended Items (CEIs) are 7-likert scale ratings from ‘strongly disagree =1 to ‘strongly agree =7. An open-ended question was added and linked to the last item in each group to ask the participant for clarification.

Exception: in the connectedness group, the open-ended question in this group was added to gather information about using web 2.0 and it was not directly linked to other questions.

Below are the descriptions of each part of the questionnaire and the used instrument.

Part-1: **Demographic information.** This section requested general details such as nationality, gender, age, level of education, internet website usage for study purposes, university / institution, type of institution and student departments. This information was important to assess the differences among the categories of students. The section contained nine questions requesting general information about the participant. However, no personal data was requested that might identify a participant unless he/she wanted to be contacted for further information about the project. The research used anonymous questionnaires to avoid any impact it may have on participants (students) as he/she has a student-lecturer relationship with them. This was also to ensure that the participants were older than 18 years and the aims of the study were clear and understood by the respondents.
**Part-2: Expert power.** In this section, the Teacher Power Use Scale (TPUS) instrument was used to measure the manner in which students’ knowledge gained from using websites has impacted the relationship with their lecturer as a knowledgeable person. The group consisted of a set of seven 7-point likert scale items and ended with an open-ended question requesting more details and seeking possible reasons. As mentioned earlier, there are many instruments that measure relationships in general; however, in terms of power in the classroom, only a few ready-made instruments are available. These have been designed to measure five bases of power which are expert power, referent power, reward power, coercive power and legitimate power. This research considered expert power and referent power only as stated in research questions 1 and 2.

Perceived power measures (PPM) and Relative Power Measures (RPM) are instruments that could be used to measure power in the classroom. According to Schrodt, Witt and Turman (2007), the PBM refers to perceived impacts of teacher power on student behaviour and in spite of dealing with some changes in student conduct; PBM does not attempt to evaluate the use of power as demonstrated by observable teacher communication conducted in the classroom. In this research, the operational definitions of power in the classroom have been based on these two measures. While PPM assesses power application in a more absolute manner, RPM aimed to evaluate power use in a somewhat relative approach. With minor changes James, McCroskey and Richmond (1983) used both PPM and RPM to assess the five forms of power in classroom.
“Teacher Power Use Scale (TPUS) focuses on observed instructor communication behaviours that communicate power to students in the college classroom” (Fassett & Warren, 2010, p. 191). TPUS is more focused on communication (relationship) aspects between the student and the lecturer which make it more suitable to be used in this research. Additionally, there is harmony between its bases, expert and referent power, which makes finding out the correlation between them possible.

**Part-3: Referent power.** In this section, TPUS was used to measure how students’ knowledge gained from using websites has impacted on their referent relationship with their lecturers as they are considered a role model. The group consisted of a set of six 7 likert scale items and ended with an open-ended question requesting more details and seeking for possible reasons.

**Part-4: Academic self-confidence.** In this section the Academic Engagement Form (AEF) Instrument was used to measure how students’ knowledge gained from using websites has impacted on their academic self-confidence. The group consisted of a 6 items of 7-likert-scale items and ended with an open-ended question requesting more details and seeking possible reasons for why they feel that the websites have impacted on their self-confidence in the classroom. AEF is a tool comprising 114 articles which was intended to evaluate the emotional and behavioural features of committing to campus-based higher education (Price, Richardson, & Jelfs, 2007). Only seven items which are relevant to self-confidence and reliance were used in this study.

Revised Approaches to Study Inventory (RASI) was considered a valid instrument to be used in this study since there were no cultural differences among respondents. It is argued that with multicultural samples, RASI shows low correlations and validity (Sadler-Smith &
Tsang, 2011). RASI also contains a number of items that measure different variables in higher education where self-confidence is only one of them (Tight, 2009). AEF was used in this study because it measures both reliance and self-confidence which was the aim of the research questions 3 and 4, and which also considered the lecturer and availability of other aspects that may impact on the relationship (Tight, 2009).

**Part-5: Academic Self-Reliance**: The AEF instrument has also been used to measure how students’ knowledge gained from using websites has impacted on their reliance on their lecturers whom they consider as the main source of information in classroom. This group consisted of only one 7-likert-scale item and ended with an open-ended question requesting more details and seeking possible reasons.

**Part-6 Connectedness** In this section the Student Instructor Relationship Scale (SIRS) instrument was used to measure how student communication with their lecturers using internet web technologies has impacted on their relationship with their lecturers. The group consisted of eleven 7 likert scale items and an open-ended question requesting participants to give their opinion about using social network sites (web 2.0) for communication with lecturers. This question is not linked to connectedness group items because these items investigating the connectedness of web 1.0. The previous studies have already confirmed a positive impact of using web 1.0 by improving the relationship between lecturers and their students; it focuses on web 2.0. SIRS is an instrument that contains 36 items and assesses student-instructor relationship in terms of connectedness and anxiety. This research used only 11 items which measured the student-instructor connectedness relationship. This instrument is widely used to measure the quality of connectedness between students and their lecturers in higher education. The Teacher-Student Relationship (TSR) is also a well-known
instrument that can be used for the same purpose. There is however no evidence to show its validity in higher education.

4.5 Instruments

Borrowing or adapting a ready-made instrument to develop a questionnaire to measure the student-lecturer relationship is widely used. Many researchers use them because these instruments have been tested and produce high levels of validity and reliability. As shown earlier in table 3 and 4 of section 4.2, there are many instruments that have been used to examine the student-lecturer relationship. For example, Mji and Kalashe (1998) and William (1992) used the Active-Passive Inventory (API) to measure students’ feelings about their lecturer, which was originally derived from Drake’s instrument (Drake, 2013). Cohen (1972) borrowed some items from the API instrument to measure personality factors and some other items from the Gordon Personal Profile (GPP) instrument to explore active or passive relationships. Creasey (2009) used similar adaptation techniques to measure the lecturer-student relationships in higher education. Although (SIRS) is a well-known instrument originally used with young students to measure their connectedness and anxiety relationship with their instructors. Creasey (2009) improved SIRS to allow it to measure connectedness and anxiety in the student-lecturer relationship in adults; this was in preference children as there were no ready-made instruments for university-level students. Similarly, Rimm-Kaufman (2010) used two instruments; the Student-Teacher Relationship Scale (STRS) to measure teachers’ perceptions of conflict, closeness and dependency with young students and the Teacher-Student Relationship Inventory (TSRI) to measure teachers’ satisfaction with their students in middle school and high school. He also referred to the possibility of using the Classroom Assessment Scoring System (CASS) to measure sensitivity and positive
and negative climates in the classroom and the Teacher Treatment Inventory (TTI) to assess loneliness and social dissatisfaction.

There are other useful measurements that could be used to investigate the relationship between students and lecturers, such as the Questionnaire on Teacher Interaction (QTI) and the Myers-Briggs Type Indicator (MBTI) (Fisher et al., 1998). Each of the instruments mentioned above has its own purpose; for instance, both Fisher and Van Petegem used QTI to measure interpersonal behaviour, while API is used to measure interactions in different research. This instrument is useful when assessing the relationship in general, when the research focus is on a specific aspect of the relationship. However, in this project, only instruments which are more suitable for the purpose of this research and required only minor amendments were used.

The framework of this research focuses on a specific aspect of the power relationship and academic engagement in the classroom. Power in the classroom includes expert and referent power relationships only where the TPUS instrument is used, as both types of power in this instrument are assessed together and the relationship between them can be observed. For academic engagement, there is no single instrument to assess the targeted factors; academic self-confidence, academic self-reliance and connectedness. AEF was used as it assesses both self-confidence and self-reliance, and the relationship between these factors can be also observed. SIRS was used for testing student-lecturer connectedness as it focuses more on using web technology in communication.
4.5.1 Instrument modifications

Minor changes were applied to the original instruments’ items to make them more accurate for the purpose of this research. The words “teacher” in TPUS instrument, “tutor” in AEF instrument and “instructor” in SIRS instrument were changed to “lecturer” as they may not refer to higher education. Further, in the Arabic language and specifically in Saudi Arabia the terms “lecture, trainer, instructor”, refer to any person who performs teaching in higher education as mentioned earlier in section 3.2 of the literature review chapter. Therefore, this matter was explained to participants before they embarked on filling in the questionnaire which stated that “Lecturer” refers to lecturer, teacher and trainer from both genders. Additionally the word “this” changed to “my” as it refers to a specific person in the original instrument while “my” does not specify a lecturer. At the end of each part, excluding part-1 (general questions), the researcher added an open-ended question requesting participants provide more details and justifications as mentioned earlier in section 4.5 above.

4.6 Questionnaire administration

Based on the desire of the participants, the researcher used two approaches to administer the questionnaire to the participants; an online-based and paper-based mode. However, both approaches have exactly the same content with participants being encouraged to fill in the online version as it is easier to export data in an electronic form for analysis purposes.

- **Online-based**: This was designed by using a professional version of Smart-Survey Online Software (SSOS).
• **Paper-based:** In some universities this method was easier to administer and more controllable. For example, in King Khalid University both options were provided to the students, although the majority of the respondents preferred to fill in a paper version.

### 4.7 Pilot test

Pilot tests were used to check the instrument prior to data collection. It was conducted on a small population sample to ensure that the instrument was valid and suitable to collect the data. In this research, more than one test was conducted because the instruments needed to be translated into Arabic. The first test was to ensure that the questionnaire fulfilled and reflected the research questions. The second test was conducted to ensure that the translation of the instrument did not change the meaning and that the Arabic version of the questionnaire was exactly the same as the English version. The pilot tests were conducted as follows;

**First pilot test:** A pilot questionnaire was administered to 30 masters students at the School of Computing and Engineering at the University of Huddersfield. The students were invited to fill in an online version of the questionnaire. A total of 22 oral comments and written responses were received from which the following feedback was provided as follow Firstly, the emphasis on the aim of the study and questions statements in each group needed to be clearer. Secondly, the expression “on the same page” which is in group-2 (referent power) was not that clear for some students. It was therefore changed to “share a common perspective”. Answers to open questions showed a good level of understanding of the questions. An improved version of the questionnaire was therefore implemented based on the responses from the Masters students. In each group, an instruction statement emphasised
clearly what should be considered as an impact when answering questions. This matter was also highlighted on the declaration page of the final version of the questionnaire before the participant started answering questions.

Adapting questionnaire to participants’ language: Arabic is the native language of the target population. Therefore, the questionnaire was translated into Arabic to ensure that all questions were fully understood. Adaption of the questionnaire into Arabic was done in two stages. The English version was translated into Arabic by an official translation company called Alzamil. To ensure that the translation version was accurate and had the same meaning as the original one which was in English, the researcher reviewed all contents of both versions with an Arabic linguistic expert, Dr Sami Faqih Alzahrani, who is an Arabic language specialist. He gave minor feedback that was related to the formality of language. Translation and languages expert’s approved certificate is attached in appendix 2. Comments from the expert were noted and the final Arabic version amended and tested offline before making the survey live for participants.

Second pilot test: The final version of the questionnaire was sent to Arabic students at the University of Huddersfield to ensure that there were no issues or misunderstanding before embarking on the distribution process. The online version was published temporarily for testing purposes. A total of ten students filled in the questionnaire with no comments. Before the process of distribution was implemented, the questionnaire was academically assessed and approved by the two main universities, King Saud University and King Khalid University, in Saudi Arabia. They checked the clarity of all questions and a copy of the approval is attached in appendix 3.
4.8 Sampling

The aim of the study was to examine the impact of students' use of websites for study purposes and to examine their relationship with their lecturers in higher education. It targets undergraduate students who use websites for study purposes. In this case, therefore, a *non-probability sample* was used. In this type of sampling, participants do not have an equal chance to participate, because not all subjects of the target population are selected (Pathak, 2008).

Since a sample is chosen based on specified conditions, this research had four conditions for participants in the research. First, the participant must have been in higher education, and (s)he should have been part of the higher education organisation. Second, participants should have been 18 years old or above to participate. Third, participants should have been of Saudi nationality as the research targeted Saudi Arabian students only. Fourth, participants should have used websites for study purposes. The sample was obtained from institutions of higher learning from the regions shown in figure 8, and the number of participants from each institution/university is listed as appendix 1.
According to D’ Amico (1969) there is no fixed rule to determine the size of a non-probability sample. It needs to be large enough to avoid sample error. Data from this research was collected from all possible accessible and available targeted students, therefore the questionnaire was distributed in all the targeted institutions and the response rate is as shown in figure 8. This techniques is usually used in exploratory research and is known as convenience sampling (Reddy & Acharyulu, 2009). The major disadvantage of this method is that the results cannot be generalised as the selected samples do not represent the whole population. To reduce the impact of this issue, the researcher collected data from many different geographic areas to cover as wide as possible area.
4.9 Ethical discussion

Ethical issues in research are very important and need to be taken into account before embarking on gathering data. It is the researcher’s responsibility to be honest and respectful to all individuals who are part of the research (Gravetter & Forzano, 2009). Most countries have enacted laws to protect individuals’ personal information from being misused. Therefore, the researcher should ensure that there are no forms of psychological or physical harm associated with participants’ contributions during and after providing the information. There are common principles that the participant should have, namely; voluntary participation, informed consent, protection from harm and confidentiality (Drake, 2013). In this research, acceptance statements between the researcher and participants were added in the first page of the questionnaire to make them aware of their rights while participating. It includes nine explanation statements that the participant should agree on before starting to fill in the questionnaire. The agreement statements are provided in appendix 4 as the questionnaire introduction.

**Voluntary participation:** participation was voluntary as it was not part of any course of activity or associated with any benefits. In addition, the respondents were free to bypass any question that they were not willing to answer. These two issues were explained clearly in statements two and three of the agreement.
**Informed consent:** The agreement explains the purpose of the research and the questionnaire contents. A link to more details about the research was provided to them in case clarification was needed. They were provided with the full contact details of the research in case of any concern or feedback. These two issues were provided in statements 1 and 4 of the agreement. In addition, as mentioned earlier in the sampling section 4.8, the content of the questionnaire was academically checked for the purposes of clarity. Participants were given the right to have a copy of the results if they were interested since they were part of the study; this was provided in statement 8. Results could be provided upon request from individuals; therefore, the researcher was not required to provide results to all participants. Statement 9 was added to remind the participants that they should participate only if they were over the age of 18 years. All these statements were highlighted clearly in both the online-based and the paper-based versions of the questionnaire. Participants were aware that they were not required to provide details which could lead to identifying them. Personal information was an option for those who wanted to be contacted in regard to the project or wanted to share their views further. Statement 5 addresses the participants’ right to hide their identity.

**Protection from harm:** Although the requested information did not target a specific lecturer, it was important to convince the participants that the information that they were providing did not affect them in any way. It was important for them to know who would deal with the information and how it would be treated. The researcher introduced himself as an independent researcher and he was the only person involved in dealing with the data. Statements 6 and 7 guarantee that the data provided will be used for this project and the researcher has the right to reuse them when he needs to. As part of the academic assessment,
the participating universities checked that there were no caveats in the content of the questionnaire that could impact on the institution and its students.

**Anonymity and confidentiality:** Anonymity and confidentiality was part of the method of collecting the research data to help ensure that participants’ information was protected. Anonymity of data reduces the risk of harming participants if the data was accessed by unauthorised persons (Fuchs, 2008) and this risk of accessing the data is more likely when it is collected and saved online (Miller, 2011).

All participant data was saved online for the purposes of collecting and analysing it electronically and only the researcher had access to them. The data were securely and confidentiality saved on Smart-Survey Online Software with full-control by the researcher. The security agreement between the research and the company can be found in Appendix 5 and by following the link http://www.smart-survey.co.uk/security.aspx. (SSOS is a main partner of well-known companies such as Oracle, NHS, HONDA and the UK Home Office).

**Access authority:** The researcher had the right to access all Higher Education organisations in Saudi Arabia. He obtained permission from the Ministry of Higher Education in Saudi Arabia which allowed him to access all higher education institutions. The permission letter is attached as Appendix 6. Access of the targeted student in each institution was through the institution’s administration.
4.10 Data collection

The data for this project was collected from 30 educational institutions in Saudi Arabia (listed in appendix 1. A link to the questionnaire was sent to a list of participating educational institutions. A paper form of the questionnaire was also distributed and the students were asked to fill in the questionnaires in their classroom and hand them in to their lecturer, after which the questionnaires were collected by the researcher. In total, 1361 participations were accepted as valid; 453 students completed the online version while 908 students completed the paper version. A total of 969 were males and 377 were females while 15 did not mention their gender. About 300 participations were omitted for three reasons; first, an item within one set of group was missing and therefore had an effect on the validity of the instrument. Secondly, within one item more than one answer of 7 likert scale had been selected where only one option was required. Third, results indicated that there were some postgraduate respondents. These were eliminated from the analysis because the research was targeted on undergraduate students only.

To ensure that all paper based questionnaires were entered correctly into the computer, each questionnaire was given a reference number that made it easier to refer to it. Once the data had been entered it was rechecked to ensure it matched the data that participants had provided. Unclear handwritten information was ignored.
4.11 Data analysis

There were two types of data that needed to be analysed – quantitative and qualitative. Therefore, two methods of analysis were required. Data analysis was completed through three stages as shown in Figure 9.

![Analysis Plan Diagram]

**Figure 9: Analysis plan**

Each stage includes sub-stages which are explained in detail in the following sections of this chapter. There are four tools that have been used in the analysis stages for the purpose of accuracy and time saving. The list of the software that was used and the objectives behind the use of each of them are shown in Table 5 below.

<table>
<thead>
<tr>
<th>Abbreviations</th>
<th>The software / Tool</th>
<th>Objective(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSOS</td>
<td>Smart-Survey Online software</td>
<td>Manage online received data</td>
</tr>
<tr>
<td>PASW</td>
<td>Predictive Analytics SoftWare</td>
<td>Analyse quantitative data</td>
</tr>
<tr>
<td>MS Excel</td>
<td>Microsoft Excel</td>
<td>Manually analyse qualitative data</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Present qualitative data in numeric form</td>
</tr>
</tbody>
</table>

**Table 5: Software / tools used in data analysis**
4.11.1 Preparing data for analysis

Carlbring et al., (2007), De looij-Jansen et al., (2008) and Wang et al., (2013) all found that there is a small difference in the results of data that had been collected by computer or online compared to pencil and paper self-administered responses. However, researchers do not widely consider this issue when analysing data. The results of the two modes in this research were, however, insignificant (0.359). For more precise results, the mean of the two results was calculated to present the overall results. This is recommended when more than one method of administering a questionnaire is used to collect the data (De Looij-Jansen et al., 2008). A detailed procedure of making this process on all factors has been published in a conference paper which is listed as number 2 in Appendix 7.

Merging data: All valid paper-based questionnaires were entered manually into SSOS by the researcher. Before entering them, a code number was assigned to each paper-based questionnaire. The online-based questionnaires were automatically given a reference code by SSOS. This enabled both online and paper-based questionnaires to be analysed together. Merging data was necessary to analyse both paper-based and online-based responses.

Adapting data: All data received via the SSOS was in Arabic format which is the language used by the target population. All data was then exported from SSOS to Predictive Analytics SoftWare (PASW). OEQs were put in a separate file as each type of data had to be analysed differently. In CEQs the 7 likert item results were translated to English and were straightforward. To translate them from Arabic to English form such as from “وافق بشدة” to “Strongly agree”; the PASW “Find and Replace” feature was used in all data and the same system applied in all other CEQs in part-1 of the questionnaire such as age group, gender.
etc. This step converted all quantitative data successfully from Arabic into the English form. A copy of both versions of the questionnaire is attached in Appendix 4.

OEQs data was not translated from Arabic into English directly because translating data into English would not reflect the exact meaning of the answers provided. According to (H. Russell Bernard & Ryan, 2009), it is important when analysing qualitative data to have very high language skills to provide data language. Nevertheless, themes which reflect the reason of the impact were extracted and illustrated in English as themes are created by the analyser and based on the understanding of provided information (H.R. Bernard & Ryan, 2010).

4.11.2 Quantitative analysis

CEQs were analysed using PASW which is a powerful statistical software package that is widely used in social studies. It contains a broad variety of statistical features that allows the researcher to analyse the data. Within this research six features were used. These were;

1. **Coding:** coding is a process of changing the variable format text from a string to a numeric form. Each variable was given a number such as (Male = 1 and Female = 0, and Strongly Agree = 1 and Strongly Disagree = 7). This process was useful when large amounts of data needed to be analysed statistically.

2. **Descriptive statistics:** Demographic characteristics such as gender, level of education, and internet usage were calculated using this feature. The average use of websites for the purpose of this study was considered important as the result of the websites impact on the student-lecturer relationship would be compared with the amount of websites use.
3. **Correlations and reliability**: The main use for correlation and reliability is to check whether items within each group are associated and consistent in the scale used (Colman & Pulford, 2011). They give an indication that questions have been understood.

The table below shows the correlation coefficients between the items in each group.

**Table 6: Items correlation test**

Correlation measure is a scale from +1 to -1. Items are considered positively correlated when their relationship is greater than 0 and negatively correlated if they are below 0. The correlation between the items in each group shows whether the items are positively associated and consistent in the scale used.
correlated which would suggest consistency between the items. The scale is considered reliable when the result of testing a relationship between items (α) is equal or greater than 0.7. Table 6 illustrates that the scale’s items in each group were correlated (correlation > 0). The test also showed that the scales used are reliable (α ≥ 0.7) as can be seen in Table 7.

<table>
<thead>
<tr>
<th>Categories</th>
<th>Reliability Statistics</th>
<th>Cronbach's Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N of Items</td>
<td></td>
</tr>
<tr>
<td>Expert power</td>
<td>7</td>
<td>0.767</td>
</tr>
<tr>
<td>Referent power</td>
<td>6</td>
<td>0.835</td>
</tr>
<tr>
<td>Self-confidence</td>
<td>6</td>
<td>0.866</td>
</tr>
<tr>
<td>Reliance</td>
<td>1</td>
<td>N/A</td>
</tr>
<tr>
<td>Connectedness</td>
<td>11</td>
<td>0.898</td>
</tr>
</tbody>
</table>

*Scale is reliable at α ≥ 0.7*

Table 7: Reliability test

4. **Compute variables**: Computing variables in PASW basically refer to modifying existing variables mathematically to create a new variable that represents a combination of variables. For example, expert power as shown in Table 5 includes seven variables (from V11 to V17). As long as these variables were correlated a new variable that represents expert power relationship variables would be generated. The same applies to the rest of the groups. As a result of this action, five new variables were created, as follows:

A. Mean of Expert power
B. Mean of Referent power
C. Mean of Self-confidence
D. Mean of Reliance
E. Mean of Connectedness
5. **Compare Means:** At this stage these five variables were compared to the level of students - websites uses (Q7: *On average, how many hours in a month do you use the internet for study purposes?*). This is to see the relationship between the amount of websites use and the level of student-lecturer relationship.

6. **T-test:** A second outcome of the study was to measure the difference among gender via a T-test, which was performed to examine any variance between the impact of using the websites as a source of information for male and female students.

### 4.11.3 Qualitative analysis

In the last decade, a number of computer-assisted software that could help to analyse qualitative data have appeared such as ATLAS, MAXQDA, QDA, and Nvivo which mainly contribute to reducing the time spent on analysing data. In fact, all of them use similar concepts of analysis. Searching and coding is the main operation in this software. They present results in quick and efficient ways. However, user interaction is still needed to identify codes and generate themes that the user is searching for based on the analysis criteria. In this study, there were two fundamental reasons for avoiding the use of software tools to analyse the data. First, the data was in Arabic which most well-known qualitative analysis software do not support. Secondly, electronic qualitative analysis is suitable for chunks of text where coding is making sense (Beidas et al., 2013). The majority of the answers (text) provided in the OEQs were in brief sentences whereby the meaning can be achieved from general understanding as opposed to a single word or phrase.
Thematic analysis:

Flexibility is one of the advantages of thematic analysis. In terms of qualitative analytical techniques, it can be roughly categorised into two groups. In respect to the first, there are those associated with, or originating from, a specific theoretical or epistemological perspective, including the conversational analysis of Hutchby and Wooffitt (1998) and interpretative phenomenological analysis of Smith and Osborn (2003). However, there is still a restricted degree of variability in how the technique can be implemented within that context. In particular, one process directs the inquiry. There are nevertheless various manifestations of the technique, from within the five broad theoretical frameworks, including the grounded theory of Glaser (1992) and Strauss and Corbin (1998); discourse analysis of Burman and Parker (1993), Potter and Wetherell (1987) and Willing (Willig, 2003) or narrative analysis such as Murray and Smith (2003).

As well as those above, there are also approaches that are not principally related to theory and epistemology. These methods can be used across a wide variety of theoretical and epistemological frameworks. Thematic analysis is truly and deeply rooted in the later group, and is in keeping with both essentialist and constructionist models within psychology (Aronson, 1994) (Roulston, 2001). The theoretical freedom of the thematic analysis enables it to offer a flexible and valuable research instrument, which can in turn lead to a rich and an in-depth, yet multifaceted set of data. Due to the benefits of a flexible thematic examination, it is vitally clear that this flexibility may in any form be limited. Nevertheless, a lack of strong and concise procedures around thematic analysis can only be justified in that the ‘anything goes’ criticism of qualitative research, as suggested by Antaki et al., (2003), and this may well be applicable in certain cases.
The procedure of thematic analyses:

Although no computer software has been used to analyse the qualitative data, the concept of simulative computer software process is possible and can be done manually (H.R. Bernard & Ryan, 2010). Table 8 shows how text can be coded and how themes can be generated manually.

Table 8: Example of Tagging and Value Coding (Bernard and Ryan 2010)

The same method as Bernard and Ryan (2010) has been used by using MS Excel as shown in table 9.
Table 9: Coding and theming by simulating (Bernard and Ryan, 2010) Method

The process of analysing text data was done through the following steps which explain the contents of table 9.

1. **Preparing data for analysis**

All data exported from SSOS into a spread sheet file. All CEQs were omitted as they have been analysed quantitatively and the purpose of this process targets the OEQs.
2. Arranging the questions

As five OEQs needed to be analysed, each question was analysed in a separate sheet of the excel file. Table 9 represented one question which justified the impact of websites on student-lecturer expert power relationship. At the end, five separate sheets similar to in which in table 9 were created which represent the five OEQs.

3. Prepare themes patterns

All responses were listed as shown in column (B) of the table, preparing the text for coding process.

4. Reference link

Each participant was assigned to a reference number, userID, which refers to the original participation as shown in column (A) in the table. This was done in order to OEQs linked to the CEQs

5. Coding and theming

While reading each response, codes were highlighted and based on the meaning of codes initial themes were created. This process applied in all responses and by going through responses, new themes were developed from coding the text. A counter was set to count how many times each theme was repeated from different responses as shown in row (3) of the table.
6. Combining themes

As there were a high number of responses, it was more likely there would be a high number of generated themes which needed to be narrowed. The meaning of a similar theme was merged together and the new theme was given a name that represents the meaning of both merged themes.

7. Categorising themes

Themes that come under similar category were grouped together in order to come up with main results from analysis process. For example, as shown in the table, fields (C2) to (Y2) represent all themes that generated from coding the question, but it had been divided into two categories which are “reason for impact and reason to no impact”. Row 1 of the table illustrates the category of these themes.

8. Presenting data statistically

At the end of the analysis of qualitative data, results should be presented in numbers in order to make sense of output themes (H Russell Bernard & Ryan, 2009). Themes that came out from the provided text represent reasons for the impact of internet websites in each factor of the relationship. The row (3) and themes in row (2) as shown in the table 9 were used to present the results in figures. Row 3 represents the number of each theme within the responses and has been presented later in figures to distinguish the main reasons that the students believe that the websites have impacted on their expert power relationship with their lecturers.
Steps (3) to (8) were repeated to analyse the rest of OEQs to justify the impact of websites on the student-lecturer relationship on the other factors; referent power, academic self-confidence, academic self-reliance and students opinion about using social network sites in education. Results chapter present these results in connection with the results of the CEQS.
CHAPTER 5: RESULTS

This chapter was designed to illustrate the results of each group of questions separately, followed by the reasons for the impact of websites on the relationship between the lecturer and the students. Although the qualitative data were analysed separately from the quantitative data, the results were later consolidated for better coherence.

5.1 Demography of the respondents

Tables 10 to 13 represent the demographic characteristics of the sample. There were 71.2% male and 27.7% female respondents. The vast majority of respondents (79.46%) were aged between 20-29 years. The online-based questionnaire was used by 33.3% of the respondents with the remaining 66.7% using the paper-based questionnaire.
### Table 10: Questionnaire administration

<table>
<thead>
<tr>
<th>Mode</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online</td>
<td>453</td>
<td>33.3%</td>
</tr>
<tr>
<td>Paper</td>
<td>908</td>
<td>66.7%</td>
</tr>
<tr>
<td>Total</td>
<td>1361</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

### Table 11: Participants’ gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>969</td>
<td>71.2%</td>
</tr>
<tr>
<td>Female</td>
<td>377</td>
<td>27.7%</td>
</tr>
<tr>
<td>Total</td>
<td>1346</td>
<td>98.9%</td>
</tr>
<tr>
<td>Missing</td>
<td>15</td>
<td>1.1%</td>
</tr>
</tbody>
</table>

### Table 12: Participants’ age distribution

<table>
<thead>
<tr>
<th>Age</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>19 or under</td>
<td>132</td>
<td>09.7%</td>
</tr>
<tr>
<td>20-29</td>
<td>1081</td>
<td>79.46%</td>
</tr>
<tr>
<td>30-39</td>
<td>88</td>
<td>06.50%</td>
</tr>
<tr>
<td>40-49</td>
<td>18</td>
<td>01.30%</td>
</tr>
<tr>
<td>50 or more</td>
<td>6</td>
<td>00.40%</td>
</tr>
<tr>
<td>Total</td>
<td>1325</td>
<td>97.40%</td>
</tr>
<tr>
<td>Missing</td>
<td>36</td>
<td>2.6%</td>
</tr>
</tbody>
</table>

### Table 13: Average use of websites

<table>
<thead>
<tr>
<th>Factors</th>
<th>Close-ended questions</th>
<th>Open-ended questions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>Missing</td>
</tr>
<tr>
<td>Expert power</td>
<td>1354</td>
<td>7</td>
</tr>
<tr>
<td>Referent power</td>
<td>1321</td>
<td>40</td>
</tr>
<tr>
<td>Self-confidence</td>
<td>1324</td>
<td>37</td>
</tr>
<tr>
<td>Self-reliance</td>
<td>1298</td>
<td>63</td>
</tr>
<tr>
<td>connectedness</td>
<td>1298</td>
<td>63</td>
</tr>
</tbody>
</table>

### Table 14: Level of response in each category

Table 14 shows the percentage of responses in each group of questions. In general, the percentage of missing data is below 5% in all the groups of close-ended questions and higher in open-ended questions. However, the open-ended responses are still rich with data as shown in the table.
**Websites usage:**

As shown in Figure 10, the use of websites for the purpose of study is very low among students in both genders. More than 60% of students use websites only for 1-5 hours or less per month.

There is only a small difference between male and female uses of websites for the purposes of study. The use of websites among females is slightly higher compared to that of males as the figure shows.

![Figure 10: Average use of online resources for study purposes per month](image-url)

**Figure 10: Average use of online resources for study purposes per month**
How the results were measured

Before illustrating the figures, it is important to distinguish the difference between the percentage of impact and the level of the impact. The percentage of impact represents how many students were found such that their relationship with their lecturers had been impacted as a result of using websites, where the level of impact determines how deep the impact on students was. The percentage of the impact is the results in which the mean is greater than 3.5. The level of impact was rated as follows; 3.5: No impact to 7- Maximum impact. The reasons and justifications of the impact came from the analysis of the open-ended question which was attached at the end of the each group of questions. Analysis from this question summarises the main reasons from the student’s perspective.

How the results are presented

The results are presented in three types of figures as follows; the impact of websites on student-lecturer relationship presented as a column chart, the level of the impact presented as a line chart, and the reasons for the impact presented as a bar chart. Each bar chart includes themes that came from coding OEQs.
5.2 Power in the classroom

5.2.1 Expert power relationship

This section shows the results of the first research question, R1: What is the impact of students’ access to websites’ resources on their expert relationship with their lecturers? The section also lists the reasons behind the impact and illustrates the reasons as to whether the students feel that the websites has not had an impact in terms of the expert power relationship with their lecturer in the classroom.

![Bar chart showing the reported percentage of websites impact on student-lecturer expert relationship](image)

**Figure 11: The reported percentage of websites impact on student-lecturer expert relationship**

From figure 11, the results show a noticeable impact on the student-lecturer expert power relationship, due to the students’ access to online information resources (87.78 % males and 39.88 females). The percentage of students for whom the websites have impacted on their expert relationship with their lecturers is higher among females.
The level of websites impact on student-lecturer expert relationship among females is also slightly higher than males as shown in figure 12. The trend lines of figure 10 show that the level of impact of the websites does not significantly change regardless of the time duration for using the internet in both genders.

Figure 12: The level of websites impact on student-lecturer expert relationship
Reasons as to why students feel that the websites have impacted on their expert power relationship with their lecturer are illustrated in figure 13.

Figure 13: Why using websites has impacted on student-lecturer expert relationship

Figure 13 explains the reasons for the impact that resulted from analysing the open-ended questions. A total of 17.42% of the students believe that their relationship and interaction with their lecturers has decreased because they believe that the information they gain from the internet is more organised and easily delivered. In total, 14.75% of students believed that
the websites contain more detailed information. Students evaluate their lecturer’s knowledge by comparing the internet information to what they are provided with by their lecturers in the class. In total, 7.10% of the students justified their aspiration to search for information from the internet due to the limitation of their lecturers’ knowledge. For quite similar reasons, 6.39% of the students have confidence in the internet information and they consider it more accurate, updated and important than the lecturer’s information. The unavailability of some lecturers when students needed them was one of the reasons for the students’ preference for online information, with 4.51% of the students (T18.7 + T18.9) claiming that their lecturers were not available when they required more information or clarification outside of class time.
Results from the analysis of the impact of websites on student-lecturer expert power relationships show that a minority of students (12.12% male and 6.12% female) believe that the information from the websites does not impact on the relationship with their lecturers.

Figure 14 illustrates the main reasons why students report that websites have not impacted in their expert power relationship with their lecturers.

<table>
<thead>
<tr>
<th>Code</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>T18.14</td>
<td>Because the lecturer has the information</td>
</tr>
<tr>
<td>T18.15</td>
<td>Because the lecturer information is more organized and easily delivered.</td>
</tr>
<tr>
<td>T18.16</td>
<td>Because the lecturer has more detailed or enough information</td>
</tr>
<tr>
<td>T18.17</td>
<td>Because the lecturer’s information is more accurate, updated and has more important information</td>
</tr>
<tr>
<td>T18.18</td>
<td>Because the lecturer has more evidence and is more trustworthy/ the internet is not trustworthy</td>
</tr>
<tr>
<td>T18.19</td>
<td>Because the lecturer is not available or does not have time</td>
</tr>
<tr>
<td>T18.20</td>
<td>Because the internet language is difficult to read or to understand.</td>
</tr>
<tr>
<td>T18.21</td>
<td>Because the internet access is unavailable or the information is not available on the internet.</td>
</tr>
<tr>
<td>T18.22</td>
<td>Because interaction with the lecturer is important</td>
</tr>
<tr>
<td>T18.23</td>
<td>Because there is no difference in information provided by the lecturer and the internet</td>
</tr>
</tbody>
</table>

**Figure 14: Why using websites has not impacted on student-lecturer expert relationship**

A total of 5.88% of the students believe that the lecturer provides them with more accurate and trustworthy information and 4.26% think that the lecturer has more detailed or adequate
information. They consider most of the information on the internet as unknown sources and therefore not trustworthy. Additionally, quite a similar percentage of students (5.57%) consider the lecturer’s information as more accurate and updated than what is available online. Also, 3.34% of students think that discussions and interactions with lecturers in the classroom is important and therefore getting online information only is not adequate.

5.2.2 Referent power relationship

This section shows the results the second research question, R2: What is the impact of students’ access to internet website resources on their referent relationship with their lecturers? The section also lists the reasons behind the impact and illustrates the reasons why the students feel that the websites has not impacted in referent power relationship with their lecturer in the classroom.

![Figure 15: Percentage of websites impact on student-lecturer referent relationship](image)
From figure 15, results show that websites resources have impacted negatively on the referent power relationship in 77.99% of males and 81.45% of females. The figure shows that the percentage of the websites impact among female students is higher than male students.

The level of the impact is between 4.2 and 4.7 out of 7 as shown in figure 16. There is no significant difference among genders in the percentage of impact and the level of the impact.

![Figure 16: The level of websites impact on student-lecturer referent relationship](image)

Students associate several factors as the reasons for creating an impact as shown in figure 17. The results show that 38% of the students indicate that the reason for easy access to available information on websites and the limit of some lecturers’ knowledge are the main reasons for the impact on the referent relationship. 23% of the students believe that their access to websites make them able to assess their lecturers’ knowledge.
Many students referred to respect of their lecturer and the amount of information that he/she has. A total of 10% of the students thought that their referent relationship with the lecturer had changed because the student has sufficient information from the internet. Altogether, 3% of them thought that they and the lecturers have similar sources of information and 7% of the students believed that they have the same amount of information that the lecturer has.

On the other hand, the results also found that websites had no impact on the student-lecturer referent power relationship for 19.08% of students. In total, 43% of them considered the lecturer’s information more accurate than website information and the experience that he/she provides more convincing (code T25.15 plus T25.16) of figure 18. For the 18% of the students where websites did not impact their referent relationship with lecturers, the reasons
were attributed to the power and influence of the lecturer’s power positions in the classroom (code T25.12 plus T25.14 from the figure 18). A total of 8% of students believed that the age of the lecturer gives him/her a broader view that impacts on his/her ability to evaluate the information available on the websites much better than the students. In total, 6% of the students had concerns about the internet website content as they might have been provided by persons who do not share their religion or culture.

Figure 18: Why websites impact on student-lecturer referent relationship
5.3 Academic engagement

5.3.1 Academic self-confidence

This section shows the results of the first part of the third research question, R3A: How has the use of web technology impacted on students’ self-confidence? The section firstly shows the impact of the websites on student self-confidence in the classroom then justifies the reasons of the impact.

![Figure 19: Impact of websites on students' self-confidence](image)

The majority of students of both genders believe that internet website information has had an impact on their confidence in the classroom, figure 19. Female students’ academic self-confidence (96.77%) is more influenced by websites information than male students (89.69%). In general, the influence of websites among females is higher than that of male students. On the other hand, 8.08% of male students and 2.42% female students claimed that websites either do not improve their self-confidence or impact negatively on their confidence.
A small percentage (2.24%) of students did not state whether they were influenced by websites or not. Students who believed that websites have no impact on their referent relationship with their lecturer claimed that the internet is mainly for entertainment and the information that they might find online is not reliable.

The level of impact of websites on students’ self-confidence is high in general but the female students’ level of influence is higher than males as shown in figure 20.

![Figure 20: The level of websites impact on student academic self-confidence](image)

As shown in figure 21, students attributed the impact of websites’ information on their confidence to several reasons which were reflected in the open-question. 76.12% of students believed that websites provided them with more information that helps them in class. In the same context, 10.45% of the students consider browsing web pages that are related to their course as good preparation for lectures. Altogether, 4.85% of the students believe that through the websites, they contact other students and experts who can provide them with information which might be easier to use than what they have in the classroom. Few students
(1.49 %) consider the reasons for the impact to be the limitation of the information that the classroom provides them with. They feel more confident when they have information that is not in the course contents which they can use to discuss with the lecturer and other students.

<table>
<thead>
<tr>
<th>Code</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>T32.1</td>
<td>Because the internet gives more information that helps in the class</td>
</tr>
<tr>
<td>T32.2</td>
<td>Because the student finds studies and examples on the internet</td>
</tr>
<tr>
<td>T32.3</td>
<td>Because the internet is a good preparation for lectures</td>
</tr>
<tr>
<td>T32.4</td>
<td>Because the internet connects student with other students and experts</td>
</tr>
<tr>
<td>T32.5</td>
<td>Because the internet gives students more self-reliance</td>
</tr>
<tr>
<td>T32.6</td>
<td>Because students are forced to follow course content only</td>
</tr>
<tr>
<td>T32.7</td>
<td>Because of students access to social networks</td>
</tr>
</tbody>
</table>

Figure 21: Why websites impact on student academic self-confidence
5.3.2 Academic self-reliance

This section shows the results of the second part of the third research question, R3B: Does students’ self-confidence impact on their reliance on the lecturer? The section firstly shows the impact of the websites on student self-self-reliance in the classroom then justifies the reasons of the impact.

**Figure 22: Impact percentage of websites on students’ academic self-reliance**

Figure 22 illustrates the fact that students feel more self-dependent when they have access to website information. A total of 69.61% male and 78.37% female students felt that they were more able to rely on themselves due to the information that they have as a result of the accessing internet information.
The level of impact is slightly higher among female students as shown in figure 23. It appears that the level of the impact slightly increases from the use of websites as shown in figure 23. The linear trends show that students’ self-confidence slightly increases by the amount of internet use in both genders.

Figure 23: The level of websites impact on student academic self-reliance
Figure 24 shows reasons why students feel that the websites impact on their academic reliance. A total of 43.65% of students find that internet information is easier to use than the lecturer’s methods. They claimed that other students and experts in websites, forums and blogs compete with each other to deliver better concepts to understand course content whereas 18.23% claimed that the lecturer’s knowledge is limited.

<table>
<thead>
<tr>
<th>Code</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>T34.1</td>
<td>Because the internet information is more organized and easily delivered</td>
</tr>
<tr>
<td>T34.2</td>
<td>Because the lecturer urges students to search on the internet</td>
</tr>
<tr>
<td>T34.3</td>
<td>Because students like to be self-reliant</td>
</tr>
<tr>
<td>T34.4</td>
<td>Because of the student is lack of confidence to ask the lecturer</td>
</tr>
<tr>
<td>T34.5</td>
<td>Because the lecturer is not available or does not have time</td>
</tr>
<tr>
<td>T34.6</td>
<td>Because the lecturer’s knowledge is limited or his/her information delivery is not comprehensive</td>
</tr>
<tr>
<td>T34.7</td>
<td>Because the position of the lecturer (lecturer disdains students)</td>
</tr>
<tr>
<td>T34.8</td>
<td>Because lecturer does not like to be asked/unapproachable.</td>
</tr>
<tr>
<td>T34.9</td>
<td>Because students use the internet to confirm lecturer's information</td>
</tr>
</tbody>
</table>

**Figure 24: Why students feel that the websites impact on their academic reliance**
Furthermore, 12.47% of the students complained that the lecturer is not always available to give them help when they need it out of lecture time. The student-lecturer relationship plays a crucial role in the students' dependence on internet information. And 2.16% of the students indicated that they shy away from asking the lecturer questions, with the same percentage of students feeling that the lecturer does not like to be asked. In total, 1.68% of the students rely on the websites to confirm the information that they have been given in the classroom. Altogether 1.7% of the students claimed that some lecturers were “discourteous” with them by their over use of their power, and therefore they do not feel related to them and hence websites have helped them to become independent. Finally, 1.50% of the students prefer to be independent regardless of their relationship with their lecturers. The same percentage of the students use the websites to confirm the information provided by the lecturer and based on what they find online, they can evaluate their lecturer.
Contrary to the above mentioned reasons as to why accessing websites has impacted on students' self-reliance, 5.28% of the students believed that gaining information from face-to-face lecturers is more appropriate as shown in figure 25.

<table>
<thead>
<tr>
<th>Code</th>
<th>Reason</th>
<th>Percentage of the reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>T34.10</td>
<td>Face-to-face interaction is more appropriate</td>
<td>5.28%</td>
</tr>
<tr>
<td>T34.11</td>
<td>Information needed is not necessarily available on websites</td>
<td>4.32%</td>
</tr>
<tr>
<td>T34.12</td>
<td>Students considered their lecturers as role models</td>
<td>2.16%</td>
</tr>
</tbody>
</table>

**Figure 25: Why websites impact on student academic reliance**

The figure further shows that 4.32% of the students believed that the information needed is not necessarily available on websites. They also believe that the internet content is more likely misleading rather than being a correct guide to the students. 2.16% of the students considered their lecturers as role models whose duty is to give support and guidance to the students as she or he is the person who is going to assess them.
5.3.3 Connectedness

5.3.3.1 Using web 1.0

This section shows the results of the first part of the fourth research question, R4A: what is the impact of internet web technology (web 1.0) as a communication tool on the student-lecturer relationship? The section firstly shows the impact of the websites on student academic self-reliance in the classroom and there is no justification for the impact of using web 1.0 on student-lecturer connectedness as this issue has been confirmed from previous studies.

As shown in figure 26, 71.96% of female and 69.35 of male students felt that they were more connected to their lecturers when using online communication such as emails and forums. They prefer, and find it easier to use emails to contact their lecturers.

Figure 26: Percentage of impact of websites on student-lecturer connectedness
The level of impact of using internet web 1.0 as a communication tools with the lecturer is low among both genders of the students as shown in figure 27. From table 15 it can be observed that the impact of websites on student-lecturer connectedness is linked with the age of the student. The table also shows that there is a comparable increase in student-lecturer connectedness with the age of the students. Students in the age 40-49 bracket feel more connected to their lectures via the internet than the students in the age category 19-39 as shown in table 15. This result can be generalised as it also applies to other factors such as age, gender, subject, level of education and type of institution i.e. public or private.

![Figure 27: Level of impact of websites on student-lecturer connectedness](image)

<table>
<thead>
<tr>
<th>Age</th>
<th>19 or under</th>
<th>20-29</th>
<th>30-39</th>
<th>40-49</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of connectedness</td>
<td>53.60%</td>
<td>56.37%</td>
<td>58.14%</td>
<td>76.47%</td>
</tr>
</tbody>
</table>

**Table 15: Student-lecturer connectedness based on age**
5.3.3.2 Using web 2.0

This section shows the results of the second part of the fourth research question, R4B: What are students’ opinions on using social network sites (web 2.0) for communication with their lecturers? The results was categorised into three groups; students’ opinion, reasons and possible obstacles.

Students’ opinion

Figure 28 illustrates students’ thoughts in relation to using social websites to communicate with their lecturers. Their opinions have been categorised into six codes from T46.1 to T46.6 as shown in the figure.

<table>
<thead>
<tr>
<th>Code</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>T46.1</td>
<td>Would recommend social networks in education</td>
</tr>
<tr>
<td>T46.2</td>
<td>Would not recommend using social networks in education</td>
</tr>
<tr>
<td>T46.3</td>
<td>Would recommended within the study environment only</td>
</tr>
<tr>
<td>T46.4</td>
<td>Would recommended outside study matters (recommended using SNS for social uses only)</td>
</tr>
<tr>
<td>T46.5</td>
<td>Think success of social networks depends on a lecturer</td>
</tr>
<tr>
<td>T46.6</td>
<td>Have no idea about impact of using social networks</td>
</tr>
</tbody>
</table>

Figure 28: Students’ opinion about using social network in education
As shown in figure 28, overall results indicate that there is no significant difference between male and female students’ views on the use of social media to interact with their lecturers. In general, a high percentage of students of both genders (79% male and 75% female) are enthusiastic about using social networking sites to interact with their lecturers, while a smaller percentage of the students (18% male and 13% female) do not recommend using them. Altogether 9% male and 5% female students recommend that the use of SNS should be within study matters while only 3% male and 5% female students believe that social networking should be done outside class time. Some 2% of the students thought that the success of SNS would depend on the lecturer’s personality while 6% of males and 5% of female students were not sure about the benefits of SNS in education.
Students’ justifications

Figure 29 details the reasons why students either support or do not support using social websites to communicate with their lecturers. Codes T46.7, T46.8 and T469 in figure 29-A indicate why students support using SNS and codes from T4610 to T4615 in figure 29-B indicate the reasons against its use.

<table>
<thead>
<tr>
<th>Code</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>T46.7</td>
<td>Social networks would break the barriers and create an intimate relationship between students and lecturers</td>
</tr>
<tr>
<td>T46.8</td>
<td>Social networks would be positive or supportive in education</td>
</tr>
<tr>
<td>T46.9</td>
<td>Social networks make communication with the lecturer easier</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Code</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>T46.10</td>
<td>Social networks might mix personal and academic relationships</td>
</tr>
<tr>
<td>T46.11</td>
<td>Social networks would encourage mixing gender</td>
</tr>
<tr>
<td>T46.12</td>
<td>Social networks would be negative in education or would not provide support</td>
</tr>
<tr>
<td>T46.13</td>
<td>Social networks have internet hazards</td>
</tr>
<tr>
<td>T46.14</td>
<td>Social networks are difficult to use</td>
</tr>
<tr>
<td>T46.15</td>
<td>Social networks have bad reputation</td>
</tr>
</tbody>
</table>

Figure 29: Reasons for support / not support using social networks in education

In sum, 37.5% of students felt that the SNS would break the barriers between them and their lecturers and may create a friendly relationship. The second reason why a high percentage of students recommended SNS in education is the ease of use. 16% males and 22% females think that SNS is easier than the normal method of communication such as e-mails. Then
22% males and 12% females believed that SNS would influence them positively in their study as they would have smoother contact with their lecturers.

Students who did not support the idea of using SNS in education, (13% male and 18% female) provided a variety of reasons for their point of view. The majority of them were not convinced of SNS usefulness in education. A total of 5% of students believed that this close relationship with their lecturers might be misused or misunderstood. Some 3% males and 6% female students were pessimistic about what SNS provided in their education with 3% of female students still having concerns about interacting with the opposite sex because of religious beliefs and 3% male and 4% female students believed that SNS has a bad reputation without providing reasons.
Possible obstacles

As shown in figure 30, the majority of students (67% male and 75% female) thought that lecturers would be the main reason that make applying SNS in education difficult. They felt that the gap between them as students and their lecturers is wide. They claimed that the current relationship was too formal and cannot be easily changed to being friendly.

<table>
<thead>
<tr>
<th>Code</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>T46.16</td>
<td>The lecturer is not available or does not have time</td>
</tr>
<tr>
<td>T46.17</td>
<td>The position of the lecturer (lecturer disdains students)</td>
</tr>
<tr>
<td>T46.18</td>
<td>Because of unavailability of the internet access</td>
</tr>
<tr>
<td>T46.15</td>
<td>Using social websites is difficult</td>
</tr>
</tbody>
</table>

Figure 30: Students' views of possible obstacles of using social network sites

The students believed that even the lecturers would not accept this kind of relationship because it would decrease their respect or the power that they possess. In total, 25% of female students believed that applying SNS in education would not be appropriate while they have no access to the internet, which is not the case among male students. Furthermore, 33% of males believed that the teacher would not have enough time to use SNS for the purpose of
interacting with his/her students. Only 1% male and 4% female students gave the reason to be the difficulty of using social network sites.

5.4 The relationship between the five factors

Table 16 and figure 31 represent the overall impact of using websites on all aspects of the relationship; expert power, referent power and engagement in the classroom; academic self-confidence, academic self-reliance and connectedness. There is no relationship between the impacts of the websites among the investigated aspects except self-reliance impact which increase by the amount of the internet uses among both genders of the students.

![Figure 31: Relationship between the five aspects of the relationship](image-url)
Figure 31 also shows that there is no relationship between the amount of time that students spend on the internet and the impact of the five aspects except on the students’ academic self-reliance aspect. Students access to websites results in making them more independent.

<table>
<thead>
<tr>
<th>Factor</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Percentage of the impact</td>
<td>Level of the impact (Mean)</td>
</tr>
<tr>
<td>Expert power</td>
<td>- 87.8%</td>
<td>4.9</td>
</tr>
<tr>
<td>Referent power</td>
<td>- 78.0%</td>
<td>5.0</td>
</tr>
<tr>
<td>Academic Self-confidence</td>
<td>+ 89.7%</td>
<td>+ 5.6</td>
</tr>
<tr>
<td>Academic Self-reliance</td>
<td>+ 69.6%</td>
<td>+ 5.7</td>
</tr>
<tr>
<td>Connectedness</td>
<td>+ 72.0%</td>
<td>+ 4.8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Factor</th>
<th>Percentage of the impact</th>
<th>Level of the impact (Mean)</th>
<th>Std.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expert power</td>
<td>- 93.9%</td>
<td>5.1</td>
<td>0.69</td>
</tr>
<tr>
<td>Referent power</td>
<td>- 81.5%</td>
<td>5.0</td>
<td>0.80</td>
</tr>
<tr>
<td>Academic Self-confidence</td>
<td>+ 96.8%</td>
<td>5.9</td>
<td>0.71</td>
</tr>
<tr>
<td>Academic Self-reliance</td>
<td>+ 78.4%</td>
<td>6.1</td>
<td>0.85</td>
</tr>
<tr>
<td>Connectedness</td>
<td>+ 69.4%</td>
<td>4.7</td>
<td>0.83</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Social websites</th>
<th>The percentage of the students who support using SNS in education</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male 79%</td>
</tr>
<tr>
<td></td>
<td>Female 75%</td>
</tr>
</tbody>
</table>

Table 16: Overall impact of using websites on student lecturer relationship
CHAPTER 6: DISCUSSION

The results from the analysis of the impact of websites on the five aspects of power; expert power, referent power, self-confidence/reliance and connectedness have been separately presented. They have been published as conference paper proceedings and are listed as appendix 7.

The main purpose of this research was to examine the impact of students’ use of websites on their relationship with their lecturers and on their academic engagement in the classroom. This research however, generated some useful information about the student-lecturer relationship and the use of websites in education. The discussion of literature has resulted in four hypotheses. This chapter discusses each of the hypotheses and analyse the research questions separately before providing a conclusion on the relationship with all factors.

As higher education in Saudi Arabia is less than 40 years old, the aim of the Ministry of Higher Education has been to build a strong higher education infrastructure system. This goal has been achieved and today there are 192 recognised universities. The higher education system is based on a teacher-centred approach where the lecturer plays a major role in delivering information to students. Internet website technologies including social websites have become widely used in the Saudi educational organisations as a tool for advertising and publishing news, but not in the education system in the classroom. Students’ use of websites for study purposes is still low. Students are very accustomed to the lecturer guides and instructions. This fact explains why the use of websites is not widely used for study
purposes. However, the students’ use of online resources has impacted the student-lecturer relationship in general. This fact encourages the researcher to publish a paper to illustrate the importance of considering results of this study when apply e-learning or distance learning in Saudi Arabia. In e-learning and distance learning approaches, students are encouraged to rely on themselves to find out the necessary information from online resources. The paper is listed as number 3 in appendix 7 of this thesis.

6.1 Student lecturer relationship

Result of Abdulrahman and Khalid (2009) study found that student-lecturer relationship in Saudi Arabia is on average good to very good; however, the research did not justify the reasons behind having good relationship between the student and their lecturers. Findings of this research tend to describe the relationship as formal rather than good. The lecturer relies on legitimate power and coercive power to control the classroom rather than expert and referent power which are claimed more effective. The relationship cannot be described as “friendly” as the word “prestige” which describes the lecturer was mentioned significantly in student responses.
6.2 Power in the classroom

Students give varied reasons for the impact of websites. However, in general reasons such as not updating lecturers’ information and the lack of interaction with the methods of modern technology are key factors that impact on the student-lecturer relationship and student engagement in the classroom.

6.2.1 Expert power relationship

Previous research shows the importance of the student-lecturer power relationship and how the lecturer’s expert knowledge impacts on students' confidence and enthusiasm to study. Informational power and content knowledge are quite similar concepts which are related to the amount of knowledge that the lecturer has. These studies have proven that student access to online resources increases student knowledge. Internet web technologies are being used successfully in the education system but the lecturers are not taking advantage of website information and knowledge. The results of this study show that online resources are impacting negatively on the student-lecturer expert power (negatively within the context of this research means an increased gap between the students and the lecturer). The results of this research show that the student-lecturer expert power relationship is changing due to increasing student access to online resources. In total websites have impacted on 90.83% of students-lecturer expert power relationships due to access to websites. There are two major reasons for the impact this has on the point of view of students. Firstly, websites have become a rich source of more organised, detailed and easily accessible information where students can find answers to their questions. Secondly, the limitation of the lecturers’
knowledge has led to students turning to websites as an alternative source of knowledge. For example, a participant referred to individuals who provide help online by saying

“It is strange, I may find people more experienced than the lecturer at the university, may be this only at my university, I do not know about the rest of the universities” (ID:3902869).

Another example that supports this from another participant indicates that,

“The majority of specialised websites in certain field, there are experts in high level of experience and knowledge and usually their information supported with explanation and details unlike some universities lecturers” (ID:3924386).

Words such as ‘‘clearer’’, ‘‘more organised’’, ‘‘more detailed’’ were used widely when participants compared internet content to what was being delivered to them in the classroom by their lecturers.

Due to student access to websites, they are under the impression that they are more able to assess the expert power of the lecturer. The comparison between the lecturers’ knowledge and the information contained in the online sources were significantly noticeable by the students’ feedback. In some cases the students felt that they have expert power over their lecturers as they have more access to websites. It is a challenge whether this is just a feeling or a fact. Almost half of the remaining percentage of the students (9.12%) who do not prefer to rely on online resources did not consider this comparable to the quality of lecturer knowledge but instead considered the reasons to be concerns pertaining to the credibility and efficiency of online information.
It is clear that the expert power possessed by the lecturer is gradually changing to information power; where students are not necessarily convinced about the information that the lecturer provides. The difference between expert power and informational power are explained in the literature review chapter (3.4.1). The students still follow the guides, provided by the lecturers, however, they have their own opinion, as they are able to assess and judge the lecturers’ information based on their knowledge from websites. Furthermore, there was a general consensus amongst the students that they found online materials more organised than those provided by the lecturer.

6.2.2 Referent power relationship

The literature review demonstrates the manner in which the relationship between students and their lecturers should ideally be friendly, so as to allow for a smoother transfer of knowledge. Students commonly believe that there is a gap in their views compared with that of their lecturers, with regards to the availability of websites. Interestingly, they believe that websites have increased the gap between students and lecturers. The results of this research have confirmed that the age and personal charisma of the lecturer have a significant influence on the student-lecturer relationship. However, the students described their referent power with their lecturers as very formal and unfriendly. They claimed that most lecturers overuse their positional power, which gives them a feeling that they do not share common perspectives with them. For example, a participant described the referent relationship between the student and some lecturer by saying "Some lecturers do not show this thing (referent relationship) because of their over formality and they hardly come out on the subject. They do not mention stories or experiences to support their information for better understanding", (ID: 3665023).
This research has found that 80.92% of respondents felt that websites have changed their view of lecturers as a reference. Websites have had a greater impact on the students-lecturer referent power relationship due to their access to websites, but at a low level and high percentage. Previous studies have shown that the lecturer referent power is linked to expert power.

These studies have highlighted that there is a strong relationship between expert power and the referent power of the lecturer. Results from this research have confirmed this fact. In the referent power results section, students have linked their referent relationship with the lecturer to the amount of information that the lecturer has. This is more evident because earlier, the lecturer had been the sole or main source of knowledge to the students. As information provision is considered part of the lecturer’s duties, some students still have a close relationship with their lecturers as they believe that lecturers provide them with support and guidance aside from that which is academically related; aspects they believe is not provided by online resources. Previous studies have also highlighted cultural impacts on the student-lecturer relationship. Furthermore, the results of this study have found that the faith of the lecturer also plays a role in the acceptance of the data that is available on the internet. Interestingly, some students are thought to evaluate internet information, based on the religion of its provider.
6.3 Academic engagement

6.3.1 Self-confidence and self-reliance

In general, the researcher’s observations are that the results of this study provide a positive outlook toward the impact of web technologies on students’ perceived self-confidence; this having a particularly significant and positive impact within the classroom itself. Furthermore, websites have helped the students to rely on themselves. These two factors are important because they lead students to be more self-reliant learners. This research has confirmed these facts however this does not mean that the role of the lecturer disappears completely. When comparing the impact of websites on self-confidence with self-reliance, it can be seen that students’ academic self-confidence was improving (89.69%). However, students are still relying on the lecturer to guide and help them (69.61%). The concerns that the researcher has is in relation to the increasing gap between the students and the lecturer. Some students blame their lecturers as they feel they do not give them adequate attention; these being one of the reasons that encourage them to seek help from websites.

Internet content is not necessarily true. Only a few students seem aware of internet caveats as opposed to the views of existing information on websites. It is therefore suggested that lecturers should not provide students with wholly tacit knowledge. It is recommended that lecturers should discuss different theories in the classroom, unrelated to the subject itself. Consequently, students may potentially struggle to judge different points of view if they do not have enough knowledge about the subject.
6.3.2 Connectedness

As mentioned in the literature review, student-lecturer connectedness differs from one culture to the other. Results from previous studies show that students’ willingness to use online communication is high in environments where the student-lecturer relationship is friendly. As mentioned earlier in chapter 3, the data for this research was collected from an environment where the student-lecturer relationship is very formal. However, the results of this research suggest that the study sample were willing and preferred to contact their lecturers via online methods. This result is quite similar to the studies that are held in environments where the relationship between student and lecturers is considered friendly. These findings have therefore led to the conclusion that web communications help students to have better contact with their lecturers, regardless of the nature of the relationship between them. The results of this study therefore demonstrate that lecturers should give more attention to students’ e-mails and messages. Replying to students’ online queries has a positive effect on the students and results in increasing interactions with their lecturers. However, the human sense of face-to-face contact and discussion is needed and should not be neglected.

6.3.2.1 Connectedness-social network

Results from this research and other studies from Saudi Arabia indicate that there is a gap in students-lecturers relationship and it requires reassessment. Global studies have revealed that social network sites have impacted positively on the student-lecturer relationship. This research illustrates that the use of social network sites in Saudi universities is not perceived as a challenge from a student perspective. Students are keen to use them; however they believe that their lecturers do not share the same enthusiasm. “The lecturer does not give us a motivation to communicate with him; he closes doors between us. Most students are afraid of
the lecturers because they control the marks. If the lecturer is not willing to communicate, the students go away from him for the purpose of his comfort as that might impact negatively on their grade”, (ID: 3854975). Similar examples were also recorded.

Student responses appeared to repeatedly express the willingness to use social networks to communicate with their lecturers, as this would break barriers. Phrases such as “will become as a friend” “will become as a brother” “I will feel comfortable” were mentioned frequently in the students’ responses. These results have confirmed the results of the study conducted by Visagie and De Villiers (2010). Jones et all., (2011) investigated the lecturers’ points of view pertaining to the use of SNS with students. The lecturers appeared to show concern about losing their professional power if they were to open the door for social communication with their students. From the results of this study, only 5% of the students agreed with this concern. On the other hand, the majority of students think that the position of a lecturer is the main obstacle and they believe that this gap should fade.

This study has revealed student views concerning the gap in their relationship with the lecturer. It has also revealed the manner in which websites have increased this gap. This research has further shown students’ willingness to bridge this gap. The lecturers seem to want to secure their power in the classroom as they believe that a close relationship with their students could influence this power.

The recommendation in the following section focuses on the lecturer’s point of view. The researcher believes that changes from the lecturer perspective are more urgent than from the student’s perspective.
CHAPTER 7:
CONCLUSION, RECOMMENDATIONS AND FURTHER RESEARCH

7.1 Conclusions

The main aim of this research project was to investigate the impact of websites on the student lecturer relationship. The term “relationship” was focused on two aspects; power in the classroom as well as academic engagement in the classroom. The two aspects have been further narrowed for the purposes of examining them in more detail. They aim to cover expert and referent power pertaining to the five bases of power in the classroom and academic self-confidence, academic self-reliance and connectedness of the academic engagement aspect. As social network sites are considered a more modern way of the communication and form part of connectedness, students were asked to provide their opinion about using them as a tool to communicate with their lecturers.

The justification for focusing on the impact of websites on this relationship stemmed from the lack of research which has explored this issue. Previous studies have investigated the impact of websites on student achievement as well as lecturer performance. They have also studied the importance of the student lecturer relationship in addition to academic engagement in the classroom.
Previous research has suggested that the student-lecturer relationship is important in terms of managing the classroom. However, there are two different points of view about the degree to which this has impacted student achievement and contrasting results have been found in relation to this. Studies have also highlighted that the relationship may be influenced by other factors such as age, gender and those related to the personalities of either the student or the lecturer. Culture has also been seen to play a major role in the student-lecturer relationship. To control for the impact of culture on this research data was collected from one country, with factors such as age and gender investigated within the data analysis.

Reviewing previous research related to the two aspects, power in the classroom and academic engagement has brought to light four research questions of particular interest, which bring attention to an external factor: student access to websites. The research questions are listed as shown below:

**R1:** What is the impact of students’ access to websites resources on their expert relationship with their lecturers?

**R2:** What is the impact of students’ access to websites resources on their referent relationship with their lecturers?

**R3A:** How has the use of web technology impacted on students’ self-confidence?

**R3B:** Does students’ self-confidence impact on their reliance on the lecturer?

**R4A:** What is the impact of web technology (web 1.0) as a communication tool on the student-lecturer relationship?

**R4B:** What are students’ opinions on using social web (web 2.0) for communication with their lecturers?
To answer these questions from a student perspective, data was collected from undergraduate students from 41 universities/institutions in Saudi Arabia. A semi-structured questionnaire was used for this purpose, as evidence has shown that it is the most suitable method to collect the necessary data in this particular situation. Two methods were used to analyse the data because two types of data were procured from the participants; quantitative data to measure the impact of websites on their relationship with their lecturer and qualitative data to justify the impact.

The results of this study demonstrate that websites have had a varying impact on student-lecturer expert power and referent power relationships websites have increased the gap between students and their lecturers in both aspects. The results also show that websites have improved students’ academic self-confidence and academic self-reliance.

Participants of this study were students from both gender but the results did not show a significant difference between them. The reasons for the impact in relation to student opinion were different among the examined aspect of the relationship. However the main reason was the fact that online resources were considered to provide them with better information that that offered by their lecturers. The results also showed that the majority of the students were optimistic about using social network sites to contact their lecturers, but felt that the lecturers did not reciprocate their feelings.
Improving the relationship between the students and their lecturers is out of the scope of this study. However, the recommendation section suggests ways that may potentially help reduce the impact of student access to online resources on their relationship with their lecturers.
7.2 Recommendations

The recommendations suggested in this section are based on the findings of this research, the educational environment in Saudi Arabia and the theories that have been previously discussed. There are three factors which may help to improve the student-lecturer relationship. Applying the recommendations could be done with the self-initiative of the lecturer. However, it would be more effective if authoritative departments in the higher education take these recommendations into consideration and utilise them with an idea to improve the relationship within the classroom.

1. Expert power relationship

It seems vital to improve the student-lecturer expert power relationship in the classroom. Improving the lecturer expert power is highly recommended as it leads to improving the referent relationship between the lecturer and the students, as there is a seemingly related association between the two. Students see that the information and knowledge online resources offer may be equal or better than that given by the lecturer in the classroom. In order for the lecturers’ expert power to remain strong, the lecturer should take advantage of online resources by using them in the classroom. This may assist in students’ willingness to share such information with their lecturers and to ensure that the information that he/she provides in the classroom is efficient and easy to deliver.
2. Formality of the relationship

The student-lecturer relationship tends to be formal in Saudi Arabia. The results of this research have confirmed the formality of the relationship between students and lecturers. It is generally recommended that the lecturer and the students should have a friendly relationship and it is thought that a more informal or friendly relationship could potentially lead students to share their experience of using websites resources, with their lecturers in the classroom. This may help to generate more academic discussions, thus assisting in improving the whole learning process within the classroom. This could also help the lecturer to distinguish which approach of delivering information is more effective in the classroom. It is thought that students may not share their experiences of searching information online unless they have a close relationship with their lecturer. This could also help to gradually change the method of teaching from being a teacher-centred approach to one which is more knowledge exchange focussed, as shown in section 3.3 of this research which highlighted the importance of having good and close relationships between the students and their lecturers.

3. Improve the image of social network sites

In Saudi Arabia, social networking sites are not generally perceived to be academically associated. In general, the utilisation of social networking sites is considered to be positively associated with the student-lecturer relationship and is thought to help improve it. As the nature of social network sites is friendly, it is recommended to use them in order to improve the relationship between the students and their lecturers. The focus should be on the lecturers as the majority of the students have no hesitations to use them to contact their lecturers.
7.3 Further research

The goal of this study was to investigate the impact of websites on the student-lecturer relationship. Since the concept of the term “relationship” is wide, as mentioned in the conceptual framework chapter and the time for this project was restricted, the scope of this research has been limited in two ways;

1. Investigate lecturer’s perspectives

This study focuses on student perspectives only. Students have provided very valuable information that has helped the researcher to come up with illustrated results. The lecturers’ opinions and contributions were very important and necessary in order to elucidate the ways in which websites impact the student-lecturer relationship. Further research can be carried out in order to investigate the lecturer’s views.

2. Investigate culture differences

The research sample for this study was selected from Saudi Arabia only. To avoid cultural differences, the sample for this research was chosen from one geographic area, K.S.A., therefore, the results of this study may not be applicable to other areas. This is because cultural differences may have a varied effect on the relationship between the lecturer and students. It is therefore important to conduct further research by collecting data from different cultures for the purpose of cross-cultural comparison of results.
At the end of this study, the author believes that this research has highlighted an important issue related to student use of websites in higher education. Certainly, with ever increasing development in the field of internet technology, the manner in which information exchange is occurring has changed dramatically. However it is not completely free of its drawbacks. This research does not provide solutions to this issue but, the author believes that diagnosing the issue and understanding the reasons behind it is more important, as this is the first stage in the steps toward solving it.
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APPENDICES

Appendix 1: The list of the educational institutions participated in the research

<table>
<thead>
<tr>
<th>Valid</th>
<th>Educational institution name</th>
<th>Frequency</th>
<th>Valid Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Albaha University</td>
<td>82</td>
<td>6.05%</td>
</tr>
<tr>
<td>2</td>
<td>Al-Ghad International Health Sciences Colleges</td>
<td>41</td>
<td>3.03%</td>
</tr>
<tr>
<td>3</td>
<td>AJouf University</td>
<td>22</td>
<td>1.62%</td>
</tr>
<tr>
<td>4</td>
<td>Alkhajr University</td>
<td>3</td>
<td>0.22%</td>
</tr>
<tr>
<td>5</td>
<td>Arab Open University</td>
<td>13</td>
<td>0.96%</td>
</tr>
<tr>
<td>6</td>
<td>Charitable Society for the memorization of the Koran</td>
<td>1</td>
<td>0.07%</td>
</tr>
<tr>
<td>7</td>
<td>Dar Al Uloom University</td>
<td>16</td>
<td>1.18%</td>
</tr>
<tr>
<td>8</td>
<td>Imam Muhammad Ibn Saud Islamic University</td>
<td>63</td>
<td>4.65%</td>
</tr>
<tr>
<td>9</td>
<td>Institute of Public Administration</td>
<td>4</td>
<td>0.30%</td>
</tr>
<tr>
<td>10</td>
<td>Islamic University of Madinah</td>
<td>3</td>
<td>0.22%</td>
</tr>
<tr>
<td>11</td>
<td>Jubail Industrial College</td>
<td>184</td>
<td>13.58%</td>
</tr>
<tr>
<td>12</td>
<td>Jubail University College</td>
<td>4</td>
<td>0.30%</td>
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<tr>
<td>13</td>
<td>king Abdulaziz University</td>
<td>42</td>
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<td>14</td>
<td>King Faisal University</td>
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<td>King Khalid University</td>
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<td>16</td>
<td>King Saud University</td>
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<td>17</td>
<td>Naif Arab University For Security Sciences aims</td>
<td>1</td>
<td>0.07%</td>
</tr>
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<td>18</td>
<td>Najran University</td>
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<td>19</td>
<td>Northern Border University</td>
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</tr>
<tr>
<td>20</td>
<td>Princess Nora Bint Abdul Rahman University</td>
<td>1</td>
<td>0.07%</td>
</tr>
<tr>
<td>21</td>
<td>Qassim University</td>
<td>45</td>
<td>3.32%</td>
</tr>
<tr>
<td>22</td>
<td>Salman Bin Abdulaziz University</td>
<td>29</td>
<td>2.14%</td>
</tr>
<tr>
<td>23</td>
<td>Taibah University</td>
<td>21</td>
<td>1.55%</td>
</tr>
<tr>
<td>24</td>
<td>Taif University</td>
<td>1</td>
<td>0.07%</td>
</tr>
<tr>
<td>25</td>
<td>Teachers College</td>
<td>2</td>
<td>0.15%</td>
</tr>
<tr>
<td>26</td>
<td>Technical and Vocational Training Corporation</td>
<td>41</td>
<td>3.03%</td>
</tr>
<tr>
<td>27</td>
<td>Umm Al-Qura University</td>
<td>7</td>
<td>0.52%</td>
</tr>
<tr>
<td>28</td>
<td>University of Dammam</td>
<td>5</td>
<td>0.37%</td>
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<tr>
<td>29</td>
<td>University of Hail</td>
<td>20</td>
<td>1.48%</td>
</tr>
<tr>
<td>30</td>
<td>Yanbu Industrial College</td>
<td>1</td>
<td>0.07%</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>1314</strong></td>
<td><strong>96.97%</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Unknown</strong></td>
<td><strong>41</strong></td>
<td><strong>3.03%</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>1355</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>
Appendix 2: The questionnaire translation certificate

Certificate

Hatem H. Al-Sidran Translation Bureau hereby certifies that the translation of attached document / documents is true and proper to the ultimate extent of our knowledge.

Hatem H. Al-Sidran Translation Bureau

P.O.Box No.:70391 - Al-Khobar 31952 - Kingdom of Saudi Arabia
Tel./Fax: 895 0603 (Chamber Of Commerce Membership No. 130268)
Appendix 3: The questionnaire review (King Saud University and King Khalid University)
سعادة الدكتور/ عميد الكلية

السلام عليكم ورحمة الله وبركاته،

إشارة إلى إحالة سعادتكم رقم 57/17 وتاريخ 17-5-2017، المبنية على إحالة سعادة وكيل الجامعة للدراسات العليا والبحث العلمي رقم 282/17 وتاريخ 17-5-2017 بشأن دراسة محتوى الاستبانة المذكورة من للباحث/ سعيد عيوض الشهري، وعنوانها "难怪 استخدام الإنترنت على علاقة الطالب بالحاضر وعند عرض الاستبانة على عدد من المختصين ودراسة محتواها تبين أنها مناسبة للتطبيق.

هذا للعلم واتخاذ اللازم، والله يحفظكم ويرحمكم،

رئيس قسم المناهج وطرق التدريس

ظاهر بن طراج الشهري
السلام عليكم ورحمة الله وبركاته

إشارة إلى إحالة سعادتك رقم ١٤٣٩/٥/١٩٢٣ إلى الهيئة السعودية للمعلومات. وتشمل مناسبتها للباحث سهيل البلاغي تحت عنوان ( لأن استخدام مواقع الإنترنت على علاقة بالطالب بالمقر

أقسام سعادتك وأنه لإمكانيات لديك من عمادة التعليم الإلكتروني من تطبيق الاستبانة. أرسل من

ساداتكم التفاصيل بالإحاطة، شاكراً لنساعدكم تعاونكم الدائم.

والفلاحت ويرعاكم!

عميد التعليم الإلكتروني

عبد الله بن محمد العليدي

جامعة الملك خالد

المشرفون:

الرقم: ١٤٣٩/٥/١٩٢٣

تاريخ: ٥/٥/١٩٢٣

البريد الإلكتروني: eltc@ku.edu.sa

 KPIMIOE: ١١٠٠ | پژوهی: ١١٤ | ایا - ١٢٠: ١٢٠

etc.kku.edu.sa

158
19480
8/0/1422

سمعة مكتب الجكو للدعاة وعلماء اليتيم وسمع العلماء
اً، وسمع العلماء وسمع العلماء وسمع العلماء.

 paranormal ...

 إذاً كانت طلباً كله في كله بشباة العلماء اُجّل العلماء المحتوى، وأحسّم باختصار لاستخدام مواقع الإنترنت على مدار
 المحتوى، وأحسّم باختصار لاستخدام مواقع الإنترنت على مدار

 كمّيّ استُفع إلى طلباً كله علماء الفقهاء للدعاة لبحث
 كمّيّ استُفع إلى طلباً كله علماء الفقهاء للدعاة لبحث

 ولا يُقِيَّ إجبار جميع العلماء، وأحسّم باختصار لاستخدام
 ولا يُقِيَّ إجبار جميع العلماء، وأحسّم باختصار لاستخدام

 هيئة الدعاة واليوم

 باسم العلماء

 البريد الإلكتروني:

 البريد الإلكتروني:

 السماح

 السماح

 159
Appendix 4 - A: The questionnaire (English version)

impact of using the websites on student lecturer relationship

Research title: The impact of using the websites on student lecturer relationship
Author: Saeed Abuhkrani
United Kingdom
University of Huddersfield
School of Computing and Engineering
contact: Information Department
saeed.abuhkrani@hud.ac.uk
+441792393175 +4965035150548
Note: Online version of this questionnaire available at www.hud.ac.uk

Please read the following explanations before embark on filling the questionnaire.

1. I am undertaking research on the impact of Internet websites on the student-lecturer relationship. The focus of the work is particularly types of power linked to a change in command between student and lecturer brought on by websites access (potentially a move from knowledge imparters to facilitator). The research targets students who frequently use Internet websites for study purposes and as a communication channel with lecturers. The questionnaire contains 37 multiple choice questions and 5 open questions which takes about 8 minutes overall to complete. Please read the statement above each group of questions carefully. The opening statements are different in each group. Your answer should be based on the given statement. Please answer all questions and give your opinion in the open questions as the information you provide here is important. At the end of the questions there is a text space where you can write any comment(s), feedback or your contact details if you would like to be contacted regarding the questionnaire.

2. I understand that my contribution to this research is voluntary.
3. I understand that I can bypass specific questions.
4. I understand the purpose of this research.
5. I understand that the information I provide in this research is anonymous. There is no way to recognize me from the responses.
6. I understand that the data I offer in this research may be used by other specialist for further analysis.
7. I understand that the data I offer might be reused based on the researcher need.
8. I understand that I can have a copy of this research outcome upon my request.
9. I am over 18 years of age.

“Lecturer” refers the lecturer, teacher and trainer from both genders.

* I have read above explanations and glad to contribute to this research
   Yes

Page 1 of 10
General Information

* Are you a Saudi student?
  ○ Yes ○ No

* What is your gender?
  ○ Male ○ Female

* In what age group are you?
  ○ 19 or under ○ 20 - 29 ○ 30 - 39 ○ 40 - 49 ○ 50

* At what level of education are you?
  ○ Diploma ○ Undergraduate ○ Masters ○ PhD
  ○ Other, please specify: .........................................................

* On average, how many hours in a month do you use the internet for study purposes?
  ○ Less than 1 hour ○ 1-5 hours ○ 5-10 hours ○ 10-15 hours ○ 15-20 hours ○ More

* In what university/institution are you studying?
  ○ King Saud University
  ○ King Faisal University
  ○ King Abdulaziz University
  ○ Imam Muhammad Ibn Saud Islamic University
  ○ Other, please specify: .........................................................
What is the type of university/institution are you studying in?

- Public
- Private

In what school/department are you?

- Computer Science/Information Technology/Computer Technology
- Administrative Sciences/Arts and Sciences/Education
- Medicine/Dentistry/Pharmacy
- Languages and Translation/Languages
- Business Administration/Department of Technology Management
- Advocacy and media
- Architecture and Planning/Civil Engineering and Architecture
- Technical electrical/electronic technical
- Other, please specify: ...........................................

Engineering
- Economics/Business Administration
- Sharia/origins of religion
- Social Science/Arabic
- Laws/Law
- Food and Agricultural Sciences/Environmental Technology
- Mechanical Technology
- General Studies

Part 1:

* For the following questions please answer based ONLY on your experience of the access usage of the internet

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Somewhat disagree</th>
<th>Neither agree or disagree</th>
<th>Somewhat agree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>My lecturer’s lectures are clearly organized and well delivered.</td>
<td></td>
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<tr>
<td>My lecturer discusses current theory and research in the class.</td>
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</tr>
</tbody>
</table>

Page 3 of 10
I can tell my lecturer really knows how to teach by the way he/she organizes the class and delivers instruction.

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</thead>
</table>

When my lecturer discusses course information, I can tell he/she is a credible source in the content area.

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<table>
<thead>
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</thead>
</table>

I can tell by the way my lecturer speaks with the class that he/she is an expert in the content area of the course.

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<table>
<thead>
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</thead>
</table>

My lecturer communicates in ways that demonstrate advanced knowledge/expertise in the content area of the course.

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<thead>
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</thead>
</table>

Information from the internet is more appropriate than lecturer information.

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<thead>
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</tr>
</thead>
</table>

Please explain your answer to above statement (Information from the internet is more appropriate than lecturer information.) with as much detail as you can.

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<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
</table>

Please go to the last page if you need more space.
**Part 2:**

*Based on your use of Internet websites as a source of knowledge and the impact of them on level of trust and identification with your lecturer, please rate each of the statements below:*

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Somewhat disagree</th>
<th>Neither agree or disagree</th>
<th>Somewhat agree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>My lecturer demonstrates commitment to the class by being authentic and genuine when interacting with students.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I find myself identifying with my lecturer because we have a lot in common.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>My lecturer builds rapport with the class by relating to students in an open and approachable manner.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I see things from my lecturer’s perspective.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I feel that I can relate to my lecturer as a person because of the personal stories and illustrations he/she shares with the class.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I feel that my lecturer and I share a common perspective.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

Please explain your answer to above statement (I feel that my lecturer and I share a common perspective) with as much detail as you can.

..........................................................................................................................................................................................
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Continue
Part 3:

Based on my use of the Internet as a SOURCE OF KNOWLEDGE, please rate each of the statements below:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Somewhat disagree</th>
<th>Neither agree or disagree</th>
<th>Somewhat agree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I can do well in my course(s) if I want to.</td>
<td></td>
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</tr>
<tr>
<td>If I decide to learn something hard, I can do so.</td>
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<tr>
<td>I can come up with my own solutions to problems.</td>
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<tr>
<td>I can get good grades in my course(s).</td>
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</tr>
<tr>
<td>When I get stuck on a question, I can eventually work it out for myself.</td>
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</tr>
</tbody>
</table>
Using the internet has an impact on my self-confidence in class.

Please explain your answer to above statement (Using the internet has an impact on my self-confidence in class) with as much detail as you can

Part 4:

* Based on my use of the Internet as a SOURCE OF KNOWLEDGE, please rate each the statement below

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Somewhat disagree</th>
<th>Neither agree or disagree</th>
<th>Somewhat agree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>When I do not understand something on the course, I search in the web rather than asking the tutor.</td>
<td></td>
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</tbody>
</table>

Please explain your answer to above statement (When I do not understand something on the course, I search in the web rather than asking the tutor.) with as much detail as you can

Page 7 of 10
Part 5:

* Based on your use of the Internet as a COMMUNICATION METHOD with your lecturer, please rate each of the statements below

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Somewhat disagree</th>
<th>Neither agree or disagree</th>
<th>Somewhat agree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The lecturer is concerned with the needs of his or her students.</td>
<td></td>
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<tr>
<td>It’s not difficult for me to feel connected to my lecturer.</td>
<td></td>
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<tr>
<td>I feel comfortable sharing my thoughts with my lecturer.</td>
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</tr>
<tr>
<td>I find it relatively easy to get close to my lecturer.</td>
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<tr>
<td>It’s easy for me to connect with my lecturer.</td>
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<tr>
<td>I am very comfortable feeling connected to a class or lecturer.</td>
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<tr>
<td>I usually discuss my problems and concerns with my lecturer.</td>
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</table>

Page 8 of 10
<table>
<thead>
<tr>
<th>Description</th>
<th>Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>I could tell my lecturer just about anything.</td>
<td>☐ ☐ ☐ ☐</td>
</tr>
<tr>
<td>I feel comfortable depending on my lecturer.</td>
<td>☐ ☐ ☐ ☐</td>
</tr>
<tr>
<td>If I had a problem in my class, I know I could talk to the lecturer.</td>
<td>☐ ☐ ☐ ☐</td>
</tr>
<tr>
<td>I know my lecturer could make me feel better if I had a problem.</td>
<td>☐ ☐ ☐ ☐</td>
</tr>
</tbody>
</table>

How do you feel about interacting with your lecturer using social media such as Facebook and Twitter?

END OF THE QUESTIONS
THANK YOU

Page 9 of 10
Anaqsiyutum mutawajdaj lahu bi tayriqat alqurani.

1. Fihmatul mawjudat akhak.
2. Sijilatul muhimmah lahu bishurah.
3. Attasiratul muhimmah hada sijilatun.
4. Adhamul amrozul lahu bi tayriqat.
5. Fihmatul muhimmah akhutul mubarak.
7. Fihmatul mawjudat akhak.
8. Sijilatul muhimmah hada sijilatun.
10. Sijilatul muhimmah hada sijilatun.

*Qarz: tawassuthuna bi tohibahul mubarak.*
معلومات عامة

هل أنت هاب سعودي؟
لا □
نعم □

ما الجنس؟
ذكر □
أنثى □

إلى أي قناة عربية ت听着؟
قل عن 19 سنة □
20 - 29 □
30 - 39 □
40 - 49 □
50 سنة أو أكثر □

ما هي المرحلة التي تدرسها حالياً?
دبلوم ب kakuros □
 Bachelor □
Juris (بدور) □

في المتوسط، كم ساعة في الشهر تستغرق موقع الإنترنت لأفراح الدورة؟
قل عن 5 ساعات □
10 - 15 ساعة □
20 - 30 ساعة □
30 ساعة أو أكثر (بدور) □

في أي جامعة أو مؤسسة تعليمية تدرس؟
جامعة الملك سعود □
جامعة الملك فهد □
جامعة الملك خالد □
جامعة الأمام محمد بن سعود الإسلامية □
جامعة أخرى (بدور) □

ما نوع الجامعة أو المؤسسة التعليمية التي تدرس بها؟
حكومية □
عامة □

Page 2 of 8
**الجزء الأول**

لاجحجة على الأسئلة التالية من فضلك استفد فقط على تجربتك وطاعة على معلومات صفحتين أخري:

<table>
<thead>
<tr>
<th>لا توقف بندته</th>
<th>لا توقف بندته</th>
<th>لا توقف بندته</th>
<th>لا توقف بندته</th>
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<tbody>
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</tbody>
</table>

1. **المادة المعمول بالأمر بالله**
   - موضوع: أغراض الأموال
   - الموضوع: أغراض الأموال
   - الموضوع: أغراض الأموال

2. **المادة المعمول بالأمر بالله**
   - موضوع: أغراض الأموال
   - الموضوع: أغراض الأموال
   - الموضوع: أغراض الأموال

3. **المادة المعمول بالأمر بالله**
   - موضوع: أغراض الأموال
   - الموضوع: أغراض الأموال
   - الموضوع: أغراض الأموال

4. **المادة المعمول بالأمر بالله**
   - موضوع: أغراض الأموال
   - الموضوع: أغراض الأموال
   - الموضوع: أغراض الأموال

5. **المادة المعمول بالأمر بالله**
   - موضوع: أغراض الأموال
   - موضوع: أغراض الأموال
   - موضوع: أغراض الأموال

6. **المادة المعمول بالأمر بالله**
   - موضوع: أغراض الأموال
   - موضوع: أغراض الأموال
   - موضوع: أغراض الأموال

7. **المادة المعمول بالأمر بالله**
   - موضوع: أغراض الأموال
   - موضوع: أغراض الأموال
   - موضوع: أغراض الأموال

8. **المادة المعمول بالأمر بالله**
   - موضوع: أغراض الأموال
   - موضوع: أغراض الأموال
   - موضوع: أغراض الأموال
الجزء الثاني

يُذَكَرُ أنَّ استِخْدَامَ القِسُودَ لِمَعَارِفِ الوَاحِدِينَ وَمَدِينَتِهما عَلَى مُوَقِعِ الْجَارِينَ وَاللُّغَاتِ عِنْدَ الْعَرْبِ يُقَدِّمُ كُلًا عَبْرَةً مِن

المعارج التالية:

<table>
<thead>
<tr>
<th>لا تُنفِقاً بِهِنَّ</th>
<th>تُنفِقاً بِهِنَّ</th>
<th>لم تُدْرِي يَدَهُ تُنفِقاً بِهِنَّ</th>
<th>لا أُقْهَفُ بِهِنَّ</th>
<th>لا أُقْهَفُ بِهِنَّ</th>
<th>لا أُقْهَفُ بِهِنَّ</th>
</tr>
</thead>
</table>

- الحضور يُبَعِّدُ الخَلَاكَةَ لِيَعْلَمَ بِهِنَّ
- أُدْرِي يَدَهُ تُنفِقاً بِهِنَّ
- الحضور يُبَعِّدُ الخَلَاكَةَ لِيَعْلَمَ بِهِنَّ
- أُدْرِي يَدَهُ تُنفِقاً بِهِنَّ
- الحضور يُبَعِّدُ الخَلَاكَةَ لِيَعْلَمَ بِهِنَّ
- أُدْرِي يَدَهُ تُنفِقاً بِهِنَّ
بناء على استخدامك لمواقع الإنترنت مصدراً للعمرة، أرجو تقييم كل عبارة من العبارات التالية:

<table>
<thead>
<tr>
<th>لا أوافق بذلها</th>
<th>أوافق بذلها</th>
<th>لا أوافق بذلها</th>
</tr>
</thead>
<tbody>
<tr>
<td>يمكنني، إذا أزودت عن آكون مشرو</td>
<td>إذا أزودت عن آكون مشرو</td>
<td>يمكنني الوصول إلى جملة موفق</td>
</tr>
<tr>
<td>إما عن طريق مبدعين، مصدرين، فهما</td>
<td>مصدرين، فهما</td>
<td>إذا كنت على مرحلة موفق</td>
</tr>
<tr>
<td>يمكنني الوصول إلى جملة موفق</td>
<td>يمكنني الوصول إلى جملة موفق</td>
<td>إذا كنت على مرحلة موفق</td>
</tr>
<tr>
<td>استخدام مواقع الإنترنت لا وقع</td>
<td>استخدام مواقع الإنترنت لا وقع</td>
<td>إذا كنت على مرحلة موفق</td>
</tr>
</tbody>
</table>

Page 5 of 8
باستخدام قانون القضاء أب، في توضيح وتحريج بانوات الروتين (الالتزام النافذة لموقع الإنترنت) لوقع عليه أب ووضعه على ازدياد لمثله بابس داخ الفعل

الجزء الرابع

بناءً على استخدام مواقع الإنترنت كمصدر للمعرفة، يرجى تقييم كل عبارة من العبارة التالية:

<table>
<thead>
<tr>
<th></th>
<th>لا أوافق</th>
<th>أوافق</th>
</tr>
</thead>
<tbody>
<tr>
<td>لصق لدى</td>
<td>غير مقصود</td>
<td>مقصود</td>
</tr>
<tr>
<td>لا أوافق</td>
<td>أوافق</td>
<td></td>
</tr>
</tbody>
</table>

عندما يقترب على فهم سلامة ما في السفر التراثي يجا إلى الإنترنت، قد لا تتطلب من المدرس.

* أقرأ أكثر من السطور أب، في توضيح وتحريج بانوات الروتين (الالتزام النافذة لموقع الإنترنت) لوقع عليه أب ووضعه على ازدياد لمثله بابس داخ الفعل.

Page 6 of 8
الجزء الخامس

بناءً على استخدامك لمواقع الإنترنت وسيلة التفاعل مع المحاصر، أرجو تقييم كل عبارة من العبارات التالية:

<table>
<thead>
<tr>
<th>لا أتفق بنتها</th>
<th>لا أتفق بنتها</th>
<th>أتفق</th>
<th>لا أتفق بنتها</th>
<th>لا أتفق بنتها</th>
</tr>
</thead>
<tbody>
<tr>
<td>تقبل المحاصر كل احتياجات الملكة</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>لا أجد صحة في التواصل مع المحاصر</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>لن أقبل طريقة عندما أشارك بكافري مع المحاصر</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>من السهل بالنسبة للقرن من المحاصر</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>أستطيع التواصل مع المحاصر.</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>أستطيع التزام الدعم عند التواصل مع الملكة أو المحاصر</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>عادة ما أتلقى رسالة وسوس مع المحاصر</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>أستطيع التواصل عبره عن قالبتي.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>لا أشعر بزيادة عندما أعمل على المحاصر</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>عندما يتم مصلي في الصلاة، أطرافته تشتمل على المحاصر لن تضحك</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>أستطيع متابعة المحاصر أو محملتي</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>أستطيع أن أكتب في الصفحة إذا كنت في محاصر</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ما هو الفكر على التفاعل مع المحاصر بواسطة وسائل التواصل الاجتماعي مثل الفيسووك وتويتر؟

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Appendix 5: The security agreement between the research and the company

Security

Data Protection

We will not in any circumstance use the information collected from our member’s surveys in any way. In addition, any other material you provide Smart-Survey (including images, email addresses, etc.) will be held in the strictest confidence. All data is on our UK based Servers.

Smart-Survey also will not collect personally identifiable information about you except when you specifically provide this information on a voluntary basis. We will make every effort to ensure that whatever information you provide will be maintained in a secure environment.

Access Control for Surveys

Access of potential respondents to the survey can be controlled by password protection. In this way, only a certain group of individuals (that you, as an administrator give access to), are able to take the survey.

Firewall

Our firewall is setup as a separate machine that acts as a gateway for access to all other servers in our system. This firewall is designed to prevent hackers from entering the system searching files and information. The firewall acts as a barrier so that we only have a single point of entry to our system... through the web browser. All of our internal databases and applications are shielded from any access outside the firewall.

Specific Data Items

Individual data items are not encrypted. However they are keyed to the survey owner’s Email and Password and we implement extensive checks so that access to each individual data item (and all computation requests) require confirmation of correct Email and Password.

Hacker Safe

Smart-Survey is tested and certified daily to pass the HACKER SAFE Security Scan. To help address concerns about hacker access to confidential data, the "five" HACKER SAFE mark appears only when a web site meets the HACKER SAFE standards.

Research indicates sites remotely scanned for known vulnerabilities on a daily basis, such as those earning HACKER SAFE certification, can prevent over 99% of hacker crime.

Online Security
This website takes every precaution to protect our users' information. When users submit sensitive information via the website, their information is protected both online and off-line.

When our registration/order forms ask users to enter sensitive information (such as credit card number and/or social security number), that information is encrypted and is protected with the best encryption software in the industry - SSL.

While on a secure page, such as our order form, the lock icon on the bottom of Web browsers such as Netscape Navigator and Microsoft Internet Explorer becomes locked, as opposed to un-locked, or open, when users are just 'surfing'. While we use SSL encryption to protect sensitive information online, we also do everything in our power to protect user-information off-line. All of our users' information, not just the sensitive information mentioned above, is restricted in our offices. Only employees who need the information to perform a specific job are granted access to personally identifiable information.

Furthermore, all employees are kept up-to-date on our security and privacy practices every quarter, as well as any time new policies are added; our employees are notified and/or reminded about the importance we place on privacy, and what they can do to ensure our user's information is protected. Finally, the UK based servers that store personally identifiable information are in a secure environment, in a locked facility. If users have any questions about the security at our web site, users can send an email to security@smart-survey.co.uk.
Appendix 6: The permission to gather data from higher educational institutions
Appendix 7: list of the publications related to this study

   *Paper title* “Impact of web applications on student-lecturer relationship”

2. 2nd International STEM in Education Conference, 24/11/2012; China, Beijing  
   *Paper title* “The Effect of Using Web Technologies to Gather Educational Research Data, and Impact on Research Results”

3. Third international conference E-learning and distance learning, 3rd-6th February 2013 Saudi Arabia, Riyadh  
   *Paper title* “The impact of moving from traditional method of learning to e-learning or distance learning on student-teacher relationship”

4. 7th International Technology, Education and Development Conference, 4th-5th March 2013, Spain, Valencia  
   *Paper title* Students’ views on using web2.0 (social web) to interact with their lecturers

5. 2013 Key West International Academic Conference, 18-20/03/2013 USA, Key West  
   **Paper title** “Impact of web technologies on student-lecturer expert power relationship”

6. International Academic Conference in Orlando 2013, 21-23/3/13 USA, Orlando  
   *Paper title* “Impact of web technologies on student-lecturer referent power relationship”

7. International Conference on Global Vision 2020, 3rd-4th May 2013 India, Tamil Nadu  
   *Paper title* “Impact of web technologies on students’ self-confidence and self-reliance”

8. National Conference on "Quality standards of private technical educational institutions", 04/05/2013 India, Faridabad  
   *Paper title* “Impact of web technologies on students-lecturer connectedness”

This project was presented as a poster in three different conferences at the University of Huddersfield (2010, 2011, 2012 and 2013), University of Brunel London (2012) and Spain, Valencia (2013).

* was selected the best paper in the conference  
** was selected the best paper and accepted as a journal paper