

UNIVERSITY OF NORTHERN COLORADO

Greeley, Colorado

The Graduate School

PARTICIPATION IN ONLINE AND FACE-TO-FACE DISCUSSIONS:  
PERCEPTIONS OF FEMALE SAUDI STUDENTS  
IN THE UNITED STATES

A Dissertation Submitted in Partial Fulfillment  
of the Requirements for the Degree of  
Doctor of Philosophy

Manal M. Alanazy

College of Education and Behavioral Sciences  
Department of Educational Technology

August, 2013

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Entitled: *Participation in Online and Face-to-Face Discussions: Perceptions of Female Saudi Students in the United States*

has been approved as meeting the requirement for the Degree of Doctor of Philosophy  
in College of Education and Behavioral Sciences in Department of Educational  
Technology

Accepted by the Doctoral Committee

---

Jeffrey W. Bauer, Ph.D., Co-Research Advisor

---

James E. Gall, Ph.D., Co-Research Advisor

---

David Kendrick, Ed.D., Committee Member

---

Anna Ursyn, Ph.D., Faculty Representative

Date of Dissertation Defense \_\_\_\_\_

Accepted by the Graduate School

---

Linda L. Black, Ed.D., LPC  
Acting Dean of the Graduate School and International Admissions

## ABSTRACT

Alanazy, Manal M. *Participation in Online and Face-to-Face Discussions: Perceptions of Female Saudi Students in the United States*. Published Doctor of Philosophy dissertation, University of Northern Colorado, 2013.

In 2005, the Saudi government started a new scholarship program that sent many female and male students to some Western countries including the United States of America. When Saudi female students enroll in universities in the United States and register for mixed-gender (face-to-face and online) classes, they have to participate in the classroom. Saudi female students do not have experience in participating in mixed-gender classes because single-sex education is provided in the education system in Saudi Arabia. This study investigated the perceptions toward online and face-to-face discussions of Saudi female students studying in the United States. A total of 277 Saudi female students participated in an electronic survey developed by the researcher. Among the results, it was found that the students' marital status affected their level of comfort when participating in face-to-face learning discussions and attitudes toward technology affected level of comfort in online learning discussions. Factors affecting social interaction, language skills, and learning environment were also identified. Implications for instructional designers and teachers who might have Saudi female students in their classes were discussed.

## ACKNOWLEDGEMENTS

First of all, I thank God for making my dream come true in earning my Ph.D. degree.

Second, I want to thank my mom and dad who were the first people who believed in me and supported me in my education even after I became a mom. I would like also to thank my brothers and sisters for the encouragement and care they showed during my study. Additionally, I would like to gratefully acknowledge my husband, Dr. Salim Alanazy, who was always by my side to make this journey easier for me, and my awesome kids, Ranka, Bisan, and Celine who were good kids all the time.

It is important for me to express my appreciation to my advisor, Dr. Jeffery Bauer, for his wisdom, awareness, advice, and guidance, all of which greatly impacted my work toward my Ph.D. degree. Also, I want to thank my dissertation co-chair Dr. James Gall for his help, encouragement, and support.

I would like to thank my dissertation committee members, Dr. Anna Ursyn and Dr. David Kendrick, for their help and support during my study.

I would like to sincerely thank my professors, Dr. Heng-Yu Ku and Dr. Linda Lohr, who helped me go beyond all the challenges I faced while working toward my Ph.D. Special thanks also go to Dr. Diane Wilson, my professor at the University of Central Missouri, whose encouragement and dependable belief in me encouraged my desire to take a further step toward my Ph.D.

Finally, I would like to thank all my friends who were helpful and supportive during this journey: Stefanie Howe, Amelia Williams, Cady Wagdy, Christina Wilkening, Constance Beard (Connie), Kalya Juarez, Krista Fiedler, Reem Alresayes, and Sandy Callen.

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PREVIEW



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## CHAPTER I

### INTRODUCTION

Single-sex education is the only form of education provided in Saudi Arabia. As a result, male and female students are separated through all levels of education including higher education (Rugh, 2002). In 2005, the Saudi government started a new scholarship program that sent many female and male students to Western countries including the United States of America (USA). When Saudi students decide to enroll in universities in the United States, they register for mixed-gender, face-to-face, and online classes. Most of these classes require the students to participate in planned learning discussions. Learning discussions are also an essential part of some advanced learning strategies such as collaborative learning. These interactions and collaborations among students are a key element for successful learning outcomes (Anderson, 2003; Kanoka & Anderson, 1999; Laurillard, 2002; Moore, 1989).

Traditionally, learning discussions have depended upon face-to-face dialogue between students and teachers. However, due to the growth of online learning technologies, an alternative form of discussion is used when students do not meet in a traditional face-to-face classroom. Instructors and students are now able to use the Internet to interact in a virtual manner while in different places and are able to respond at different times of the day. These online learning discussions are conducted either *asynchronously* or *synchronously* (Hrastinski, 2008).

In asynchronous online discussions, undirected communication takes place among students and their instructors using web-based tools such as email, blogs, forums, and more sophisticated Learning Management Systems (LMS) specifically developed to deliver comprehensive online courses and programs. Using these systems of communication, students can decide when to send and open messages or discussion responses based on their own time schedules. Synchronous online learning discussions refer to real-time communications that take place among students and their instructors using web-based communication tools such as text chat, voice chat, and videoconference often embedded within learning management systems (Hrastinski, 2008). The present study focused only on asynchronous online discussions. Asynchronous communication is more common in online instruction when an LMS such as Desire2Learn (D2L; 2013) or Blackboard is used. Most universities in North America have adopted these learning management systems. Paterson, Brewer and Stamler (2012) reported that asynchronous communication is more popular than synchronous communication for involving reading and replying to messages at the user's convenience. Also, Parsad and Lewis (2008) described asynchronous discussion as the most approved delivery technique for online education. An asynchronous discussion forum is the most advanced and broadly used platform in online education where students and instructors communicate with each other irrespective of time and place. It is also the most ideal form of discussion in collaborative learning (Huang & Hsiao, 2012; Liu & Yang, 2012; Nandi, Hamilton, & Harland, 2012) because "asynchronous communication is more popular than synchronous communication, using e-mail, or a bulletin board as the means of communication.

Participants in an asynchronous group can read and respond to messages at their convenience” (Perron, 2002, pp. 71-72).

While the face-to-face learning environment can provide an opportunity for learning discussions where individuals can read body language, receive immediate feedback, and clarify misunderstandings (Tiene, 2000; Wang & Woo, 2007), online learning environments have other advantages for student participation such as having substantial time to prepare for the discussion and relief from the stress that often comes with in-class participation (Card & Horton, 2000; Meyer, 2003; Walther, 1996).

Both face-to-face and online participation also have limitations. The most significant limitation of face-to-face discussion is time. Due to limited class time, students usually do not have enough time to think deeply about the topic in order to facilitate high quality discussions (Card & Horton, 2000; Meyer, 2003; Walther, 1996). Conversely, the absence of real-time interaction that allows students to use body language to understand and participate in the discussion is considered one of the most significant limitations in asynchronous online discussions (Tiene, 2000; Wang & Woo, 2007). These limitations of learning discussion affect students’ perception and participation in each environment. As a result, student perceptions toward both types of learning discussion and factors that affect student perceptions warrant examination.

Previous studies show that female students have more positive attitudes toward online discussion than their male peers (Bouras, 2009). Studies also show that Saudi females have positive perceptions toward online learning (Alarfaj, 2001; Alaugab, 2007). However, a review of literature found no studies that investigate Saudi female students’ perceptions of online discussion versus face-to-face discussion in the United States. This

study focused specifically on this area. Students' perceptions toward their participation in each environment and factors influencing them were investigated.

### **Purpose of the Study**

The purpose of this quantitative study was to explore the perceptions toward online and face-to-face discussions of Saudi female students who are studying in the United States. The following research questions guided this study:

- Q1 For female Saudi students, do marital status, region, or previous experience with online courses influence learner's level of comfort toward each learning discussion (face-to-face and online) environment?
- Q2 For female Saudi students, is there a relationship between attitude toward technology and learner's level of comfort toward each learning discussion (face-to-face and online) environment?
- Q3 Do female Saudi students report greater comfort in participating in face-to-face or online discussions?
- Q4 For female Saudi students, do marital status, region, or previous experience with online courses influence levels of inhibition to participate in mixed gender face-to-face and online discussions?
- Q5 For female Saudi students, is there a relationship between attitude toward technology and levels of inhibition to participate in mixed gender face-to-face and online discussions?
- Q6 For female Saudi students, do marital status, region, or previous experience with online courses influence perceived benefits of the face-to-face or online medium in the areas of social interaction, language skills, and learning environment?
- Q7 For female Saudi students, is there a relationship between attitude toward technology and benefits of the face-to-face or online medium in the areas of social interaction, language skills, and learning environment?
- Q8 Are there any listed features of online discussion boards that correlate with perceived level of comfort in participation?

### **Significance of the Study**

Results of this study can be used by instructors to better understand how Saudi female students in the United States perceive their participation in online and face-to-face learning discussions. It can aid in adapting learning discussions to fit students' needs. This study can also provide valuable information for instructional designers in the process of learner analysis. Instructional designers would be provided with some principles related to creating effective learning discussions for Saudi female students and an understanding regarding the motives and inhibitions that affect Saudi female students' participation in both online and face-to-face discussions.

### **Definition of Terms**

**Asynchronous communication (online discussion).** Occurs in an educational situation when the instructor and learner do not have direct interaction at the same time or location via the Internet and a computer (Phipps & Merisotis, 1999).

**Blackboard.** Computer-mediated software used as a course management system to develop and deliver educational course content via the Internet (Crump, 2010).

**Comfortable.** Feel free from stress or tension in participating in a learning environment, especially face-to-face and in an asynchronous discussion forum.

**Discussion learning.** The process where students discuss a topic in a forum or dialog that takes place among students or between students and an instructor.

**Face-to-face discussion.** An educational environment where the instructor and the learners meet on a regular basis in a classroom at a designated time. They communicate and interact directly. This environment is also referred to as a face-to-face-



classroom (Russo & Campbell, 2004). This study focused on a specific type of face-to-face discussion that is planned, instructor-led, formal, semi-structured, and goal-oriented.

**Face-to-face learning.** A course that meets in the classroom with the instructor and the student physically present in the same location (Elbaum, McIntyre, & Smith, 2002).

**Learning management system (LMS).** A software system exclusively designed for students and instructors to use in education such as email, blogs, or forums (Bongey, 2012).

**Online learning community.** When put into a learning context, discussion boards and chat rooms are used to develop a sense of community among students. The community is used as a medium for connecting students that may result in accelerated learning and sharing of knowledge (Klein, 2007). It includes courses in which students and their professors share a purposeful, coherent, and integrated learning environment in two linked or interdisciplinary courses (Klein, 2007).

**Participation.** Provide written or oral comments, ask questions, engage in dialog, actively speak, or write during class discussions whether online or face-to-face.

**Perception.** Perception theory stems from the Gestalt theory, which is premised on the concept that things are affected by where they are and by what surrounds them, so that things are better described as more than the sum of their parts” (Engelmann, 2008, p. 90).

**Regions.** Governmental divisions in Saudi Arabia: North, South, East, West, and Center.

**Students' perceptions.** In this study, perceptions were students' views or opinions of the level of comfort they experienced when participating in learning discussions.

### **Limitations**

This study gathered data through a self-report survey. Although it is reasonable to believe they were able to answer the questions truthfully, it was still a self-report and might not fully represent actual behaviors or past attitudes.

A second limitation was that multiple variables were measured with one survey. It is possible participants' answers on one part of the survey were influenced by other questions or they were all influenced by the method of measurement. The relationships discussed were done so with this limitation in mind.

A third limitation was that only Saudi female students at one particular point in time were questioned. The results might not generalize to other students from gender segregated educational systems. As cultural and educational conditions change, they could likely affect many of these factors, requiring further study.

## **CHAPTER II**

### **LITERATURE REVIEW**

#### **Higher Education in Saudi Arabia**

In 1954, the Ministry of Education was established in Saudi Arabia. At the time the Ministry of Education was created, there were few schools and universities (Alamri, 2011). The schools that did exist provided education free of charge for Saudi male citizens only. Two types of institutions existed when the Ministry of Education came into being: traditionally-oriented Islamic colleges and modern, Western-type colleges. Admission requirements for these schools included completion of secondary school as well as proficiency in the English language for those students in technical and scientific studies. Due to the lack of educational institutions in Saudi Arabia, the government provided scholarships to those who sought higher education so students could study in other countries, such as Egypt. According to Saleh (1986), by 1982, the country had sent 11,921 students to study abroad through provision of scholarships.

The Ministry of Education worked to develop the education system in Saudi Arabia. In 1957, it established Riyadh University in the capital of Saudi Arabia. Riyadh University is known today as Saud University. This school was created to educate students in the country instead of sending them abroad. The Ministry of Education continued to improve education in Saudi Arabia. In 1982, seven universities existed across the country in all major cities including Islamic University in Medina, the

University of Petroleum and Minerals in Dhahran, King Abdulaziz University in Jeddah, Imam Muhammad Bin Saud Islamic University in Riyadh, King Faisal University in Dammam, and Umm Al-Qura University in Mecca (Al-Mouhandis, 1986; Saleh, 1986). Although the number of schools had grown, all schools only educated Saudi males. According to Alamri (2011), King Saud had discussed the issue of woman's education and the importance it would add to the growth of the country as far back as 1959. As a result, the first primary school for girls was established in 1960. Many female students attended the school and gained a high school degree, which led to the government feeling pressured to allow women to enroll in a university. As stated in research by Al-Mouhandis (1986), in 1964 the government of Saudi Arabia approved the right for girls to attend college. The first Saudi females went to study at universities in the United States. In 1970, the first College of Education for women was established in Riyadh. This college still exists and offers four-year undergraduate programs in seven specialties of study (Al-Mouhandis, 1986). By the end of 1980, 10 similar schools had been established (Al-Banawi & Yusuf, 2011). Additionally, in 1972, King Saud University began to use closed-circuit television to broadcast lectures and question-and-answer sessions to female students. In 1980, a limited number of doctoral programs were created specifically for female students. As of 2010, female students comprise the largest portion of students in higher education with 60% of students enrolled in public and private universities being female (Ministry of Higher Education, 2010).

Due to the growth in the number of universities and colleges, the Ministry of Higher Education was created in 1975 as a separate entity from the Ministry of Education. The Ministry of Higher Education is in charge of higher education

development and policy (Al-Mouhandis, 1986). Female students have since continued to work toward their university degrees. Education is free at all levels including higher education to both female and male students according to the educational policy of the country (The Higher Committee for Education Policy, 1970).

Recently, the Saudi Ministry of Education (2011) reported 2,180,738 Saudi female students in K-12 education. The report also showed 17,695 all-female schools were established in Saudi Arabia compared to only 15,291 all-male schools. Nevertheless, educating Saudi females is still a challenge due to Saudi Arabia being a developing country and its social regulations. For example, the number of female professors is still low compared to that of male professors. In 2010, there were only 2,109 female professors out of 8,397 total university professors working in 27 public universities in Saudi Arabia (Ministry of Higher Education, 2011). As a result, Saudi universities rely upon instructional television for male professors to teach female students since Saudi males are not allowed to teach female students face-to-face. This approach limits student-teacher interactions (Mackey, 2002).

The effect of the steps the Saudi government has taken to develop higher education in Saudi Arabia can be compared to a seemingly dormant volcano that has suddenly exploded. Like the underground pressure that builds within a volcano, the gradual increases in educational opportunities have culminated in a recent series of expansive opportunities. These steps came as royal decrees. One step was to increase the number of institutions of higher learning. This caused the number of universities to jump from seven government universities to 57 private and government universities and colleges in less than 10 years (British Broadcasting Corporation [BBC]Worldwide

Monitoring, 2011). Consequently, the increase in the number of universities led to an increase in the number of Saudi females attending higher education to pursue master and doctoral degrees (Al-Banawi & Yusuf, 2011). Another step was to grant students who were seeking higher education and willing to travel abroad with the King Abdullah Scholarship Program (KASH). This program provides support for students to study at approved institutions outside of Saudi Arabia.

A main goal of the Saudi government has been to make sure that all citizens have the same right to education free of charge without any discrimination (Al-Banawi & Yusuf, 2011). There are more than 38 educational institutions and eight universities for women in the country directly under the Ministry of Higher Education. Women represent more than 58% of the total number of Saudi university students. Saudi government statistics reveal that the total number of female students seeking a bachelor's degree has tripled from 93,486 in 1995–1996 to 340,857 in 2005–2006 (Al-Munajjed, 2008). Just as in other countries, Saudi women are graduating from universities at higher rates than men (Al-Banawi & Yusuf, 2011).

### **Saudi Arabian Students in the United States**

In 2005, the Saudi Ministry of Higher Education established a new scholarship program, the King Abdullah Scholarship Program (KASP) which has allowed thousands of students, both male and female, to receive higher education in different countries such as the United States, the United Kingdom (UK), France, and Japan. According to Dr. Almousa (2011), former director of KASP, the number of Saudi students studying abroad in 2011 was approximately 80,000 and this number will reach 140,000 in the next five years. According to the Saudi Arabia Cultural Mission (SACM), there are around 47,000

Saudi students in the United States with female students making up 30% of this population (SACM, 2011). This percentage is low because female Saudi students are required to “have a legally acceptable male companion, who will be required to travel with her and remain with her until the completion of her scholarship study” (Ministry of Higher Education, 2010, p. 31).

The King Abdullah Scholarship Program created new opportunities for Saudi females to receive high quality education and enroll in some areas of study not currently available for females in universities in Saudi Arabia such as engineering. Also, Saudi females studying in foreign countries are able to interact face-to-face with their male peers and professors, which is not permissible in Saudi Arabia. These interactions take place in either traditional face-to-face courses or as part of online courses. However, research on Saudi female students’ perceptions toward their face-to-face participation in learning discussions is lacking. Research in this area could lead to a better understanding of the needs of female Saudi students in education and provide these students with a better learning environment to meet those needs.

Saudi students carry their culture and social norms with them to the country in which they study; being in a foreign country does not force them to lose or change their culture and social norms. Studying abroad provides an opportunity to learn some of the culture and social norms of the host country; nevertheless, some Saudi students do not feel comfortable interacting with host country students. According to Hayes and Lin (1994), when international students come to the United States, they might experience the feeling of loss that could lead them to feel less confident, feel unremitting tension, and experience confusion. This mix of emotions affects them by leading them to avoid

interactions with other students. In a study by Trice (2004), the research showed that Middle Eastern and African students interacted the least with Americans than any other international students. Trice explained that these findings were due to significant cultural differences between Saudi Arabia and America (Alreshoud & Koeske, 1997; Pruitt, 1978).

Another important factor that sometimes impacts Saudi students is discrimination (Heikenheimo & Shute, 1986; Trice, 2004). According to Heikenheimo's and Shute's (1986) study, 91% of the international students who had been interviewed believed that there was racial discrimination. The international students stated that that people who worked in cafes were less polite and teachers were less helpful, sometimes used pejorative examples in class, or appeared to favor national students in grading.

Marital status is considered another factor that plays an important role in students' interactions. Married students interacted less with Americans than did single students and, therefore, had less need to find or build new friendships from different cultures (Trice, 2004). In addition, for those whose partners lived with them in the United States, it might have been one of their high priorities to create a supportive community with other families from the same culture or country, especially if the partner was not a student (Alreshoud & Koeske, 1997).

Hewitt and Alqahtani's research (2003) showed that Saudi participants have different principles about a suitable distance when interacting with others that changes according to the gender composition of the partner. Saudi people are more comfortable being close during interactions of female-female and male-male than with male-female. As a result, Hewitt and Alqahtani suggested in their experimental research that when