The Perceived Competencies of Faculty in Online Classes from the Perspective of the Students of the Saudi Electronic University

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The Perceived Competencies of Faculty in Online Classes from the Perspective of the
Students of the Saudi Electronic University

By Atekah Ibrahim Alshuaibi

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A dissertation submitted in partial fulfillment of the requirements for the degree of
Doctor of Philosophy

Department of Education, Management, Leadership, and Policy
Seton Hall University, 2020
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Ateka Alshuaibi has successfully defended and made the required modifications to the text of the doctoral dissertation for the Ph.D. during this Fall Semester 2020.

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Abstract

Since the 1990s, online programs have expanded across Saudi Arabia. However, Saudi universities have encountered a variety of challenges in implementing E-learning. A significant challenge is the lack of instructor training in online teaching skills. Consequently, instructors have been unable to adjust to the rapidly growing nature of learning technology. Thus, a few instructors have remained unenthusiastic about distance learning, and online learning has yielded unsatisfactory outcomes. While there are numerous studies related to online faculty in Saudi Arabia, only one of these studies considers students' perspectives for online faculty competencies in Saudi universities. Hence, this study contributes to the literature and adds new data regarding faculty's perceived instructional competencies from students' perspectives. The research questions inquire about the competencies that faculty must possess for conducting online classes and assess if there are any differences in students' perspectives due to participants' gender and academic major selection. The sample includes 226 currently enrolled students (n = 226) from the Saudi Electronic University (SEU). The data was collected via an online survey. The responses were analyzed using a t-test, one-way analysis of variance (ANOVA), and two-way ANOVA using the Statistical Package for the Social Sciences (SPSS). The results revealed that the top five high-rated skills focus on the interaction between instructor and students through feedback and communication. Also, results indicated that males and females differed in their perceptions in six out of seven online competencies. The findings also revealed there were no differences among students due to their academic discipline.

Keywords: Online class, online instructor, online student, face-to-face classes, teaching competencies.
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CHAPTER ONE

Introduction

The growth of information technology has brought about new forms of teaching and learning. A modern form of education has emerged recently, which is known as digital learning, E-learning, or online learning. The term E-learning (electronic learning) refers to methods of learning through the use of any electronic medium. E-learning is also known as virtual education, online training, open training, and web-based learning where the Internet is the primary tool in implementing learning (Baker & Unni, 2018).

Online learning is not an entirely new type of learning. Specialists confirmed that it has roots in the tradition of distance education, which goes back at least 100 years to the early correspondence courses (Carut & Caruth, 2013). In 1873, Anna Eliot Ticknor, who is the daughter of George Ticknor, a Harvard professor, founded the Society to Encourage Studies at Home. She had her father’s enormous library at her disposal and all the resources she needed to begin the Society to Encourage Studies at Home. The Society to Encourage Studies at Home was one of the first significant examples of distance education where learning was conducted over mail. Briefly, the learning process occurred when educators mailed syllabi to the students who were responsible for submitting assignments to the instructor over mail (Bergman, 2001).

With the appearance of the Internet and the world wide web, online courses have spread worldwide. In Saudi Arabia, online education first appeared in the 1990s. Since then, online programs have expanded across the country, with significant enrollment increases. For example, King Faisal University (KFU) reported that among 186,741 students who enrolled in the 2014–2015 academic year, 151,883 students were enrolled in E-learning and distance education programs (KFU, n.d.). Online education has expanded because it suits students’ circumstances. For example, it is accessible for students who have commitments at work or
home or if the student is unable to attend campus classes (Al-Asmari & Khan, 2014; Fajardo, 2014).

The increased popularity of online learning worldwide causes a few professors and administrators to believe that there is no difference between online classrooms and face-to-face classrooms. They assume that approaches used face-to-face would surely work online. They also assume that they merely need to convert the course material. In fact, there are numerous other issues that faculty have to pay attention to in online classes (Alenezi, 2012; Palloff & Pratt, 2000).

The shift from face-to-face to online education revealed enormous challenges to educational institutions and their instructors. In online education, a few significant modifications must be considered. For example, there is a difference between online teaching skills and face-to-face teaching skills (Schmidt et al., 2013). Online teaching competencies are evolving faster and they require high levels of knowledge and a different mix of skills, competencies, and qualifications. It will be essential for the instructor to adapt to a variety of tasks (Begoña, et al., 2014). Therefore, specialists assert that teaching online courses demands a continuous revision of policy, curriculum, infrastructure, and university culture (Almalki, 2011).

In this regard, scholars emphasize that faculty development is a critical strategic component to ensure institutional quality and to support the institutional change in higher education (Austin & Sorcinelli, 2013). Faculty require support in balancing multiple responsibilities and in learning new roles. Best practices for the online instructor are the product of diversity in strategies and techniques where the combination of methods for learning help to provide students with a more consistent and productive approach (Fajardo, 2014).
In brief, instructor’s competencies in online education are a significant factor in the educational process (Schmidt et al., 2013). Online teaching requires comprehensive preparation for the faculty in order to qualify them to deal with the online environment (Shahdad & Shirazin, 2012). Most of the faculty preparation depends almost entirely on the quality of professional development (Frass et al., 2017). Therefore, it is essential to develop a recent body of knowledge from the perspective of students regarding valuable teaching methods so that they can be identified and utilized by future online instructors as well as by developers who work as part of professional development programs.

**Background of The Saudi Context**

**Online Education in Saudi Arabia**

In the past few decades, the number of students enrolled in higher education institutions in Saudi Arabia has increased rapidly. Between 2005 and 2010, unique quantitative and qualitative leaps were made in the field of higher education. The result was an increase in the number of universities from 8 to 28 public universities. These universities provide approximately 250,000 extra seats, thereby accounting for 91% of high school graduates (Ministry of Education, n, d). As a response to this growth, numerous higher education institutions have offered E-learning systems as a tool to enhance students’ access to such learning (Alkhalaf et al., 2012). This increase has synchronized with a growth in information and instructional technologies. The National IT Plan (NITP) project was issued in 2003 by The Ministry of Communications and Information Technology (MCIT). The NITP recommended the adoption of E-learning and its applications in academic institutions, which led to the establishment of the National Centre for E-learning & Distance Learning (NCeDL) in 2005 (MCIT, n.d.).

Despite the earlier sluggish rate at which Saudi Arabia was adopting online education, it has now rapidly grown in sectors of learning due to the benefits it offers students,
instructors, and universities (Alenizi, 2012). Most universities in KSA have significantly increased their focus on E-learning and replaced entire curricula by incorporating E-learning materials into existing curricula. Al-Asmari and Khan (2014) mentioned that the universities like King Saud University (KSU), King Abdul Aziz University (KAU), Al-Baha University, Taiba University, Qassim University, King Khalid University (KKU), and Madinah Islamic University have formal agreements with the NCeDL to introduce E-learning schemes into their curricula. Moreover, the E-learning Center at King Fahad University of Petroleum and Minerals (KFUPM), which was established in 2003, also offered integrated access to online resources using WebCT. Alfaisal University has also joined the OpenCourseWare Consortium in 2006 (Al-Khalifa, 2010).

By 2011, the Ministry of Higher Education established the Saudi Electronic University (SEU). Since then, online programs have been expanded across the country, with significant enrollment increases, where the number of undergraduate students in the SEU has increased from 5,250 in 2012 to 21,425 in 2019 (Ministry of Education, n.d.).

**Religious and Cultural Considerations of Saudi Society**

Saudi society is described as a conservative society that abides by its social rules and thoughts. The official religion in Saudi Arabia is Islam. It is one of the main factors that form the identity and attitudes of Saudi society. It is the number one point listed in the Saudi Educational policy. It plays a pivotal role in contouring the social norms, traditions, and practices of the Saudi community. Therefore, the content of online courses should be developed in harmony with the instructions of Islam and the conservative ideas of the society (Alubthne, 2018).

Although there is a rapid process of social transformation in Saudi society more recently, gender segregation remains an essential factor that must be considered when developing online courses. It is a law that is implemented in numerous community facilities.
related to education, jobs, and transportation (Al-Saggaf, 2004). Therefore, Al-Jarf (2005) suggested that shyness of female students and their concern with making mistakes or being exposed to criticism could prevent them from participating actively and interacting with their male peers in online courses, which in turn makes them passive learners. The findings of this study are consistent with those of Al-Jarf (2007), which has also found that cultural factors impact learners’ participation in online learning. Accordingly, religious considerations and gender segregation are fundamental considerations that must be pondered when adopting any education initiative in Saudi Arabia, including online education.

**Saudi Electronic University (SEU)**

The Saudi Electronic University (SEU) is the only specialized university in distance education in Saudi Arabia that offers both graduate and undergraduate degree programs along with lifelong learning. The university has adopted blended learning that meets the needs of learners in a knowledge age in a technological environment. It is a public educational institution founded on October 8, 2011.

The SEU provides 14 degree-granting programs: 10 bachelor programs and 4 master programs in different majors in the following colleges:

- The College of Administrative and Financial Sciences.
- The College of Computing and Informatics.
- The College of Health Sciences.
- The College of Science and Theoretical Studies.

The SEU has used a blended-learning environment, which consists of 25% face-to-face learning and 75% online learning in the English language beginning in the first year of studying—the preparatory year at SEU. The SEU provides a learning-management system that enables students to participate in the virtual classroom, video tutorials, book contents, and interaction with educational forums. In addition, the SEU (2012a) has numerous
Learning Management System (LMS) features for instructors to build the content of the courses (Almoslamani, 2019).

The university has ten campuses in different cities in Saudi Arabia that serve over 20,000 Saudi students and approximately 1132 international students. Table 1 presents the distribution of the SEU’s undergraduate students (SEU, n.d.).

Table 1

| Statistics of the enrolled undergraduate students at SEU according to their college |
|---------------------------------|-----------------|-----------------|-----------------|-----------------|
|                                   |                  |                  |                  |                  |
| **Years**                        | **College**      | **Saudi**        | **non-Saudi**    | **Total**        |
|                                 | **Male** | **Female** | **Male** | **Female** | **Male** | **Female** | **Total** |
| **2019–2020**                    |          |           |          |           |          |           |          |
| College of Administrative and    | 1579     | 1467      | 96       | 128       | 1675     | 1595      | 3270      |
| Financial Sciences               |          |           |          |           |          |           |          |
| College of Computing and         | 1050     | 596       | 136      | 92        | 1186     | 688       | 1874      |
| Informatics                      |          |           |          |           |          |           |          |
| College of Health Sciences       | 632      | 751       | 11       | 121       | 643      | 872       | 1515      |
| College of Science and           | 1153     | 472       | 30       | 52        | 1183     | 524       | 1707      |
| theoretical studies              |          |           |          |           |          |           |          |
| Common First Year                | 7005     | 5588      | 207      | 259       | 7212     | 5847      | 13059     |
| Total                            | 11419    | 8874      | 480      | 652       | 11899    | 9526      | 21425     |

The purpose of establishing the SEU is the development of a distinguished university in the field of electronic learning and pioneer in self-education in order to fulfill the university’s vision, which contributes to the economy and cognitive community (Aldiab et al., 2017). Hence, the university builds a strategic partnership with multiple international universities and companies in order to present refined educational content from a diversity of foreign sources and localize it in a form that is appropriate for Saudi society.

According to the SEU (n.d.), the goals of SEU are

1. To represent the nation and to compete with other international universities.
2. To present a flexible and distinguished example of higher education, support self-learning skills, and to offer knowledge.

3. To provide higher education based on the best applications and technologies of E-learning to transfer and localize knowledge.

4. To support the mission and the concept of lifelong E-learning and distance education for all members of Saudi society.

**Professional Development for Faculty at the SEU.** The Academic Accreditation department that belongs to the Quality Management and Academic Accreditation is responsible for providing the SEU’s faculty with the requisite professional development programs. The department also seeks to obtain institutional and program accreditation through meeting the standards of the National Commission for Academic Accreditation and Assessment (NCAAA). The Academic Accreditation department serves 579 faculty members, among which 335 are Saudis. (SEU, n.d.).

**Problem of The Study**

The increased demand for online learning courses has led a few institutions to assign faculty to teach these courses without much discussion regarding what to expect and how to be prepared (Hamilton, 2016). According to the report by Seaman et al. (2018), despite the recent trend of a general decline in US higher education enrollment in 2016, the proportion of students in higher education who participate in distance learning courses has increased. The number of distance education students grew by 5.6% from Fall 2015 to Fall 2016 to reach 6,359,121 students taking at least one distance course, thereby representing 31.6% of all students. Oomen-Early and Murphy (2009) stated that certain institutions have pushed faculty into the role of online educators rather than transitioned them through preliminary training. A few program leaders assume that faculty members are qualified to teach online classes once they can teach face-to-face courses efficiently. Bates and Watson (2008) mentioned that
numerous faculty members have modified their face-to-face teaching methods to accommodate online education requirements without any formal training. There was a need for professional development for faculty in online teaching. Therefore, colleges and universities have developed a comprehensive array of programs and strategies to promote an instructor’s capacity to teach online courses (Lichoro, 2016).

The online education sector in Saudi universities has rapidly expanded in recent years. The number of students who enrolled in the SEU has increased from 7,803 students in 2013 to 25,220 students in 2019 (SEU, n.d.). However, various studies have reported a few issues associated with faculty preparation, skill gaps, and the quality of outcomes (Basahel & Basahel, 2018). In his research, Al-Shehri (2010) employed a qualitative approach to explore 30 senior academicians’ perspectives regarding current and future developments and challenges of online learning in KSA. The participants reported acknowledged difficulties with respect to resources, organization, management, and information technology. The study documented the need for rapid development in terms of clear vision and strategic planning with prospective E-learners in order to make E-learning programs more effective.

In a research study conducted by Alenizi (2012), he referred to challenges associated with E-learning in the Saudi context. These challenges are associated with students, faculty, and administrators. For example, a few students lack the required technological skills for E-learning. The faculty may encounter additional time commitments as well as the need for professional assistance in developing the course contents and the requisite expertise in teaching. In addition, because the education system in Saudi Arabia is centralized, certain administrators may face the difficulty of resistance to organizational conversion caused by the use of E-learning methods.

Another study by Basahel and Basahel (2018) aimed to explore the institutional, technological, cultural, and learner challenges in the Saudi cultural context in King Abdulaziz
University (KAU). The results revealed that there are seven issues related to online distance education as a whole. The first is institutional issues, which include change of residence, lack of participative decision-making, inadequate training, lack of motivation and support from individuals in higher positions, lack of experience and knowledge sharing among staff, and poor quality of online courses. The results revealed that technological issues, cultural issues, social issues, and political issues also impact the status of online distance education.

Indeed, a range of challenges has impacted E-learning in Saudi universities. One of the problems that instructors face is the need for continuing professional development to adapt to or learn new technologies and pedagogies. A significant gap in the Saudi higher education system is the lack of instructor training for online teaching skills. This lack could be caused because of the absence of professional development programs that concentrate on teaching online. Therefore, instructors are unable to adjust to the rapidly growing nature of learning technology. Thus, a few instructors have remained unenthusiastic regarding distance and online learning and ended up with unsatisfactory outcomes (AlJaber, 2018).

Consequently, by 2017, the Ministry of Education had confined the online learning to the Saudi Electronic University (SEU) by requiring other universities to stop their degree-granting online programs in order to reform policy that could promote the efficiency of online learning outcomes. In 2019, the Saudi government also established the National E-Learning Center (NELC) which is organizationally linked to the Minister of Education in order to raise the quality of E-learning education (NELC, n.d.).

After a thorough review of the literature, particularly in the Saudi context, it is evident that consistent standards have not been developed to enable professional development departments to prepare faculty for the online environment (Alenizi, 2015; Alghamdi, 2012; Almalki, 2011). Despite numerous studies related to online faculty in Saudi Arabia, only a few of these studies consider students’ perspectives for online competencies in Saudi
universities. The majority of these competencies have been identified by experts in the field. Further, research has confirmed that there are differences between faculty perspectives and student perspectives in terms of e-learning (Abdulla, 2004); therefore, there is a need to study student perspectives. Hence, the study contributes to the literature and adds new data regarding necessary online competencies from students’ perspectives that has not been previously studied.

**Purpose of the Study**

The current position of online education in Saudi Arabia remains ambiguous. Since 2017, the Ministry of Education has closed all online degree-granting programs, except those belonging to the SEU, due to inefficient outcomes, quality of education concerns, and accreditation issues. This study aimed to contribute to the literature by determining competencies for online faculty from the perspectives of students. The results from this study provide a framework for deciding what content is necessary to include in development programs in order to prepare instructors for online teaching.

**Research Questions**

The study addressed the following research questions:

1. What are the perceived competencies for a faculty member in online classes from the perspectives of SEU students?
2. Do the perspectives of SEU students regarding the competencies of a faculty member in online classes differ due to the student’s gender?
3. Do the perspectives of SEU students of the competencies for the faculty member in online classes differ due to the academic discipline of students?

**Research Hypothesis**

*Hypothesis Based on Question Two*
The literature on gender differences is conflicting. Studies have mentioned that males are able to handle online courses than females, while others found the opposite. Therefore, there is no direction for this hypothesis. The hypothesis for question two is “there is a statistically significant difference based on gender in the perspectives of SEU students regarding the competencies of faculty members who teach online classes.”

**Hypothesis Based on Question Three**

There is a statistically significant difference in the perspectives of SEU students regarding the competencies of faculty members who teach online classes due to academic discipline.

**Significance of the Study**

Identifying valuable skills in an online learning environment and instructor practice of these skills is the foundation of such learning, thereby making this type of education more effective. A study documenting the competencies for online teaching is aimed to contribute to the literature, particularly in the Saudi context, as well as to the ongoing restructuring process in Saudi Arabia in the following ways. First, the results of this study will determine the teaching skills required for the success of online education. Second, this study will provide contemporary content to educational institutions, particularly in Saudi Arabia, which would be significant to update their professional development programs. In other words, the study's results will inform administrators responsible for professional development regarding required skills that must be included in the faculty development programs. Third, the results of this study will provide faculty with insights on how the faculty in online classes must practice, which would encourage them to improve their performance. Finally, the COVID-19 pandemic has impacted the entire world where all educational institutions have had to move entirely to virtual learning. Research suggests that online learning has expanded information retention, thereby implying that the influence of COVID-19 might be here to stay.
permanently (Li & Lalani, 2020). To illustrate, The National Center for E-learning has issued licenses to four universities (King Abdulaziz University, King Faisal University, Qassim University, and Princess Noura bint Abdulrahman University) to provide E-learning programs based on the center’s controls and standards (Ministry of Education, n.d.). The Ministry of Education recently announced that E-learning would continue even after the COVID-19 pandemic in every school, thereby confirming that online education will be a project for the future and the Saudi educational system will continue to adopt it in all circumstances during and after the pandemic, such as through rainy and stormy days during which schools would usually close.

A few higher education professionals indicate that a new mixture model of education in Saudi Arabia will emerge and have significant benefits. They indicate that online education will eventually become an essential component of school education. They also assume that traditional face-to-face learning and E-learning can go hand by hand (Li & Lalani, 2020). Therefore, the need for the results of this study is more than ever before.

**Organization of the Study**

This dissertation is organized into five chapters. Chapter One provides an introduction, statement of the problem, purpose of the study, research questions, significance of the study, limitations, and the definitions of terms. Chapter Two presents a review of the literature relevant to this study. The literature review consists of four main subthemes. The first part focuses on the importance of professional development for faculty. The second part includes a review of a few of the studies that have attempted to identify online teaching competencies as well as other studies that address the impact of faculty development on the success of the online learning process. The third part presents the perspectives of faculty regarding online teaching, which highlight teaching experiences in an online environment. The fourth part discusses the perspectives of students on online education. Chapter Three discusses the methodology used
in the study, including the research design, population and sampling procedure, research
instruments, data collection methods, and data analysis. Chapter Four is organized by research
question and reports the findings of the study. Chapter Five includes a brief summary of the
research findings based on the dissertation survey results. The chapter also includes
implications for practice and a culminating discussion of future research recommendations.

Definitions of Key Terms

- **Face-to-face classes.** Face-to-face classes are traditional learning environments where
  students physically attend instructor-led lectures in a room assigned by the institution.
  This term is used interchangeably with “in-person classes” or “traditional classes.”

- **Online course.** Courses made available online, via Internet connectivity, through a
  learning management system are called online courses. Students who are enrolled in
  online courses are physically separated from their teacher and other enrolled students.

- **Online instructor.** An online instructor is a teacher who provides educational content
  to online students exclusively through a learning management system.

- **Online student.** An online student is a student who receives all course content (lectures,
  assessments, activities, assignments, communication, etc.) from online instructors
  exclusively through a learning management system.

- **Teaching Competencies.** These are defined as “the set of knowledge, skills, and
  experience necessary for future, which manifests in activities” (Katane et al., 2006).
CHAPTER TWO

Review of Literature

Chapter Two presents a review of the literature relevant to this study. The literature review consists of four main subsections. The first one focuses on the importance of professional development for faculty. The second one includes a few studies that attempted to identify online teaching competencies as well as other studies that address the impact of faculty development on the success of the online learning process. The third subsection presents the perspectives of faculty regarding online teaching; it highlights teaching experiences in an online environment. The fourth subsection discusses the perspectives of students on online education.

Professional Development for Faculty Members

In education, the term professional development is used in reference to a wide variety of specialized training, formal education, or advanced professional learning. The National Commission on Teaching and America’s Future (1996) referred to professional development as the ongoing learning opportunities available to teachers through their school or school district. Faculty development has been defined as a series of exercises that extend the knowledge, skills, and attitudes of instructors. This exercise leads to a change in their thinking, teaching practices, and educational behavior (Iqbal & AlSheikh, 2018). Mohr (2018) defined faculty development as “a developmental activity designed to improve faculty performance in all aspects of their professional lives” (p.14). Faculty development activities are also used by institutions to develop, promote, and assist newly employed adjunct faculty who teach online in preparation for new roles, including those of teaching and learning (Dailey-Hebert et al., 2014). Diamond (2002) indicated that professional development is a concept that relates to both faculty and instructional development. He stated that the faculty development outcomes improve faculty performance as well as enable the development of a
positive attitude toward teaching. Overall, an improvement in teaching practices aims to
enhance and promote the learning process of students. In other words, the purpose of faculty
development is to transfer newly gained knowledge and skills to the classroom in order to
motivate the learning and teaching process.

Further, numerous studies confirm that faculty development is a critical element in
ensuring the quality of education (Austin & Sorcinelli, 2013). Certain scholars believe that
faculty development is a necessary strategic change to assure college development and
support the institutional change in higher education (Szybinski & Jordan, 2010). Rienties et
al. (2013) indicate that it is vital that professional development is incorporated into the daily
practice of academics and is not merely concentrated in one particular context. In the higher
education system, the professor is the most important source of knowledge for most students
(Blašková et al., 2014). Therefore, working as a university professor has an enormous impact
on knowledge development and awareness of students. It requires knowledge, professional
competencies, as well as the ability to develop theses competencies. Hence, there have been
numerous investigations that attempt to determine the requisite competencies of qualified
faculty members and discuss how to improve them.

Blašková et al. (2014) indicated that the role of university teachers is of exceptional
importance because teachers form the basis for creating new knowledge for the university as
well as its students. Their study aimed to analyze the personal-professional profile of
university teachers and the competencies that they are required to possess. This study focused
on how skills are the basis of any proficient working behavior and the level of their maturity
is critical for the successful performance of the profession concerned. The results
summarized the competencies that the university professors must own. According to the
authors, there are seven primary competencies that a professor must practice with their
students: professional competence, educational competence, motivational competence,
communicational competence, scientific and research competence, and publication competence (Blašková et al., 2014).

**Professional Development for the Online Faculty**

In the field of online education, studies recommend increased support and professional development for online instructors. Faculty cannot be expected to automatically know how to teach online or how to manage the online class or even how to promote online course materials. In his study, Mohr (2018) mentioned that development and support must be provided throughout their entire teaching tenure.

Higher education institutions must recognize that faculty development programs may not meet the needs of faculty members who are planning to teach online or who are currently teaching online courses (Adnan, 2018; Mohr and Shelton, 2017). Mohr and Shelton (2017) mentioned that it is important for educational institutions to assist their faculty with professional development models that are specially designed to meet the needs of online faculty members. The authors conducted a study that presented best practices for the professional development of faculty teaching online. The study indicated that the topics related to the professional development of online faculty were divided into four categories: faculty roles, online classroom design, learning processes, and legal issues.

Further, faculty development is essential for introducing advanced educational skills and for the integration of technology. Simultaneously, the adoption of new strategies is critical to improving competent online instructors who have a positive attitude with online learning (Adnan, 2018; Kennedy, 2016; Orr et al., 2009). Adnan (2018) conducted a mixed-method research that proposed to examine an online faculty development program that reflected the expectations, readiness, and satisfaction of participants. The results indicated that there is a significant relationship between individual readiness and satisfaction and reveal that readiness positively predicts satisfaction. Kennedy (2016) also revealed that faculty who
participated in formal professional development believed that it increases satisfaction with online teaching. The purpose of her research was to explore the perceptions of faculty of the usefulness of, and participation in, formal and informal types of professional development for online teaching as well as relationships with faculty satisfaction with online teaching.

Further, similarly, Orr et al. (2009) conducted a qualitative study that aimed to examine faculty perceptions of institutional efforts at addressing barriers to the ability of faculty members to plan and deliver online courses. The researchers interviewed a total of 10 faculty members. The results revealed that faculty who received compensation for their course development mentioned that the compensation was a positive motivator. In the category of technical expertise, support, and infrastructure, most faculty members believed that the institutional support they received effectively promoted their online teaching efforts, where nine faculty members indicated that the pedagogical and technical assistance they received enhanced their efforts.

In conclusion, I believe that professional development is a necessary ongoing process for faculty members. Higher education institutions have the responsibility of supporting faculty and assisting them with professional development programs. For online education, these programs must be specially designed to meet the needs of this type of education.

**Competencies for Online Teaching**

The current level of technological development has enriched learning environments. The higher education landscape has become more accessible for all students. On this basis, specialists have voiced the urge for educational reform of educational institutions and educators so that they may become able to face challenges and fulfill the first objective of education: preparing all students, regardless of their abilities, to meet the needs of continuously changing world and empowering them to participate in developing their societies with high levels of academic and intellectual skills in addition to improving
students’ learning skills to become lifelong learners (Sellars, 2012). Due to this, Gheith and Aljaberi (2018) stated that it is vital for institutions to focus intensely on more modern approaches in preparing faculty and developing them professionally as well as to move from learning the theoretical principles to familiarizing teachers with analytical and reflective norms in teaching.

**Definition of Competency**

According to Blašková et al. (2014), competency (in terms of professionalism) is defined as “a summary of the key professional, personal skills/talents, and behavioral patterns that individual needs in order to successfully accomplish professionally defined goals relevant to professional tasks, duties, and responsibilities.” (Blašková, 2011, p. 108)

Competencies can also be defined as the ability to use knowledge and skills (Quendler et al., 2013). Teaching competencies are defined as an integrated set of personal characteristics, knowledge, skills, and attitudes required for efficient performance in different contexts of education (Dineke et al., 2004). Competencies have been identified and articulated by non-profit and for-profit institutions, scholars, and institutions as the range of institutional maturity in offering and supporting online courses and programs indicates that expectations regarding instructor competency will and must vary (Bigatel et al. 2012; Grabowski et al. 2016).

**Importance of Possessing Online Teaching Competencies.** The new challenges faced by educational systems demand further improvements, particularly in terms of the professional development of faculty. Faculty require efficient tools and resources to help successfully facilitate learning in all educational environments, particularly in online classrooms (Gheith & Aljaberi, 2018). Currently, there is an increase in the number of students who enroll in online courses. Allen and Seaman (2017) have mentioned that one-
third of all students in US higher education are now enrolled in at least one online class and approximately half of those students complete all of their classes through distance learning.

When the learning process is occurring in the absence of the physical interaction between instructors and students, the learning experience changes in multiple ways. The online course is a constitutively different means of offering higher education. The shortage of accessible information regarding such changes is problematic because faculty will not be adequately prepared to navigate change successfully. Indeed, faculty require solid information regarding the instructional changes that guide online teaching (Major, 2015).

**Face-to Face Education Versus Online Education**

The transition from traditional face-to-face teaching to online teaching has resulted in notable confusion for those who do not have previous online teaching experiences (Schmidt et al., 2013). Esani (2010) emphasized that classroom transition from traditional face-to-face to online learning must be matched by a change in the role and skills of teachers. By using creative educational strategies, encouraging sharing knowledge with students, and promoting social communication—which creates a kind of comfort—the professor will ensure the success of the online learning process (Esani, 2010).

In their study, Schmidt et al. (2013) aimed to understand the processes that online faculty members underwent. There was a consensus among the participants in this study that online teaching skills are not limited to learning how to download the course content on a website or how to develop activities, but there are other online teaching skills that teachers must consider—for example, using different ways to engage the student by enhancing communication skills. The study suggested that universities have a responsibility to prepare instructors on how to teach online through training courses. The instructors must learn about the skills they require in order to succeed in the online teaching process (Schmidt et al., 2013).
A paper by Young and Duncan (2014) reported on a study that compared student ratings of instruction in online and face-to-face higher education courses in order to better understand how faculty can strengthen their teaching in an online environment. The ratings were based on 172 online courses and 470 on-campus courses. The researchers analyzed the data twice and in both analyses the results indicated that students are more satisfied with traditional, face-to-face courses compared to online courses. Thus, the authors recommended increasing support and professional development for online faculty.

Further, the purpose of Cavalier’s (2014) particularistic qualitative case study was to analyze what impact, if any, increased enrollments in online courses have on faculty attitudes toward teaching online and whether or not increased enrollments deter full-time faculty from teaching the same number of courses online as in the past or teaching online at all. After Cavalier analyzed the data, three themes emerged from this study: (a) identifiable differences exist between teaching online and in the traditional setting, where online teaching demands more of an instructor’s available time than traditional teaching; (b) class size is not the only factor that impacts one’s decision to teach or not to teach online; and (c) increased class size affects the instructional approach in online courses.

**The Role of the Online Instructor**

When faculty move from the traditional classroom to the online classroom, there are a few things that the two have in common; however, at the same time, there are plenty of differences. Numerous studies have explored the teacher’s role in the online environment to provide a comprehensive list of the online teacher’s characteristics and competencies (Alvarez et al., 2009; Baghdadi, 2011; Thach and Murphy, 1995). The findings of these studies can be used as a source for development programs. Thach and Murphy (1995) is one of the earliest studies on the role of online instructors. The study’ was important because there was little information on the new roles and competencies that faculty are required to
obtain. It identified 11 roles of distance education professionals: 1) Instructor, 2) Instructional Designer, 3) Technology expert, 4) Technician, 5) Administrator, 6) Site Facilitator, 7) Support Staff, 8) Editor, 9) Librarian, 10) Evaluation Specialist, and 11) Graphic Designer. Alvarez et al. (2009) suggested the roles of teachers in virtual environments are the role of planning and design, the social role, the cognitive role, the technological domain, and the managerial domain. This study aimed to clarify the roles and competencies of teachers in virtual learning environments. The planning and design refers to the tasks involved in the planning and organizing the teaching and learning process. The social role includes the competencies required to promote an atmosphere of communication. The cognitive role refers to the cognitive leadership of the teachers and their competencies in information handling. The technology domain relates to knowledge of support services, multimedia knowledge, necessary technology, skills of software, and data analysis skills. The managerial field is linked to managing a set of competencies that allow the teacher to develop and adapt planned actions. The authors conclude that teachers’ knowledge of these different roles for the online teacher will contribute to defining the skills required to implement these roles.

In his article, Baghdadi (2011) emphasized that the online instructor must serve as a guide to facilitate learning and must do that in an obvious manner because of the lack of face-to-face interactions. The instructor is expected to be flexible and make schedule adjustments as needed to manage special circumstances for students. The author also recommended the use of “frequently asked questions” to answer numerous expected questions that students may ask. He also mentioned an important factor, which is the student-teacher ratio. The number of students enrolled in an online course must be sufficiently large to ensure interaction and dialogue amongst course participants but simultaneously enable the instructor to monitor and manage the students’ activities and performances efficiently. The author concluded with the communication between the learners and their instructor as an essential
factor in addressing the various roles and responsibilities that are expected from each participant. He considered that online learning is a more productive and more equitable learning experience than face-to-face education because it demands a variety of ways of communicating with all participants.

A few studies confirm that the instructor’s skill in facilitating the learning process is one of the critical components of quality in online courses (Andrade, 2015; Hanover Research Council, 2009). According to the Hanover Research Council’s review of the best practice teaching strategies in the field of online education (2009), three main components affect online learning—planning and development, teaching in action, and student assessment and data evaluation. The level of interaction between students and teacher is significant in online education. The report considered online discussion forums as one of the best ways to facilitate interaction and learning in online classrooms. The interaction between the instructor and students can also be enhanced by using e-mail or electronic discussion tools. The interaction between learners and between trainer and learner largely determines the quality of online learning (Hanover Research Council, 2009). There are other essential features of creativity and innovation in online teaching. Andrade (2015) emphasized that mastering the content of the course, improving critical thinking, using problem-solving strategy, and communication skills are able to build global knowledge in online learning. The need for such skills in online teaching is an essential driving force to successful online education (Andrade, 2015).

**Online Teaching Competencies**

Educational studies consistently refer to the importance of student-faculty interaction as a critical skill in online environment. A study by Pascarella et al. (2005) confirmed that persistent contact between faculty and their students is an independent variable that positively affects student learning outcomes. Similarly, the Wabash Study of Liberal Arts Education
(2013) identifies high-quality interaction with faculty, both within and outside the classroom, as a critical component of student learning.

One of the early studies that focused on the competencies of distance education professionals is Thach and Murphy (1995). The study identified the top ten competencies of distance education which are listed below:

1. Interpersonal Communication.
2. Planning Skills.
5. Writing Skills.
6. Organizational Skills.
7. Feedback Skills.
8. Knowledge of Distance Education Field.

Strandberg and Campbell (2014) have observed the importance of interaction between students and instructors as a critical factor to success in the online learning experience. The study identified best educational practices specifically related to online teaching and attempt to engage students better to promote an online learning experience. First, creating an atmosphere where students know at least two other colleagues; second, providing a variety of visual, audio and multimedia tools; third, dispersing readings with meaningful images; and fourth communicating with students several times per week. The study confirmed that the commitment to these practices would improve the quality of the online course.

Elbarbary’s study (2015) aimed to produce a list of core E-learning competencies for faculty members in higher education based on an integrated approach. The researcher used
four rounds of Delphi technique to determine the importance rate of each component of core competencies according to a consensus among the panelist experts. According to the results pertaining to 26 participants, four main categories were identified as core competencies for E-learning: (a) planning and designing, (b) assessment and evaluation, (c) technical support, and (d) teaching and learning.

In a study associated with the Saudi context, Alubthne (2018) aimed to explore students’ perspectives regarding the quality elements required for online courses developed by the SEU. The results revealed that interaction with instructors in online classes is a significant factor in online classroom. This interaction includes using different communication methods, stating course objectives, using timelines and summaries, connecting course content to real-world applications, providing resources, a well-organized interface, and working with other students collaboratively.

The qualitative data such as student comments on course evaluations also provide more details about the features that constitute effective teaching. Duncan (2005) and Young (2006) studied student comments on online courses and found that, according to students, effective online teachers were those who were concerned about their students, established trusting relationships, and provided structure and flexibility. Students described effective teachers as those who communicated well with their students and were active and visible when required. Agosto et al. (2013) also observed that it was necessary for online instructors to promote collaboration and conversation with their students in online environments. In their study, Johnson, Cascio, and Massiah (2014) revealed that the interaction between students and the instructor is a crucial factor of positive online experiences and outcomes as well as it impacts student satisfaction and their academic achievement.

A similar qualitative study by Bacino Thiessen (2015) investigated community college students’ perception of online courses through an examination of their experiences
with online classes. The results revealed that students placed high importance on the interaction with their teachers. The role of the teacher appeared as a crucial element in the overall satisfaction of students in online courses.

Similarly, Jackson et al. (2010) conducted a study that aimed to identify faculty actions that positively influenced student satisfaction in the online classroom at the community college level. Data were collected from student evaluations of two web-based courses at two Texas community colleges. The results of the analysis indicated that independent variables received high positive responses, thereby indicating perceived effective faculty actions within the online classroom. The variables were the instructors’ abilities to clearly communicate expectation, the timeliness/accessibility of the instructor, the instructors’ abilities to provide clear directions regarding the coursework, the instructors’ actions aimed at creating positive learning environments and showing enthusiasm for student learning, the instructors’ successes at creating a positive learning atmosphere, and the engagement of the instructor within the online class through lectures and classroom activities. The results also revealed that 76.3% of respondents agreed that the instructors’ actions positively impacted the learning experience.

In the same vein, Gillett et al. (2015) affirm that it is critical to communicate clearly with students in online teaching through student feedback. Student feedback must be drawn on a regular basis throughout the course rather than merely requiring students to complete the final survey. Both teachers and students indicated that the teachers require strong organizational skills in all materials that including websites, articles, and software. They mentioned that courses must be designed in a manner that students can easily see and navigate through pages. The results from interviews with teachers and students in this study closely correlate with what current literature says about factors that make online learning successful.
In conclusion, the online teaching skills and competencies have been mentioned in numerous previous studies; using different sorts to interact with students, more feedback, organizing course materials, and technical skills (Alvarez et al., 2009; Kebritchi et al, 2017; Esani, 2010; Ragan, 2008; Strandberg & Campbell, 2014). Scholars have indicated these skills in order to ensure the success of this education, faculty must be trained not only to use technology but also to shift their strategies for organizing and delivering material (Palloff & Pratt, 2000).

**Faculty Perspectives About Online Teaching**

Recently, numerous faculty members are under increased pressure to adapt their teaching methods to include technology-enhanced methods (Walters et al., 2017). McQuiggan (2012) mentioned that certain faculty have successfully embraced these methods, while others have failed or are slower in adapting.

Online teaching is not limited to knowing how to deal with technology; it is a difficult, complicated process that requires higher levels of dedication from faculty. Nevertheless, Bolliger and Wasilik (2009) indicated that certain faculty are satisfied with their online teaching experiences. In their study, they found that satisfaction is generally associated with three main areas—first, student-related, which includes active communication with the instructor, and student access to online technology; second, instructor-related, which includes reliable technology; and third area that affects faculty satisfaction was the institution-related like a higher workload and compensation.

The purpose of Fish and Gill’s (2009) study was to reveal whether faculty at one university valued and supported the paradigm of online teaching and learning. Participants were asked to rate their comfort levels and training toward teaching online as well as their perceptions regarding student learning outcomes and the delivery of academic tasks being
taught online. The researchers found that those who had positive online experiences believed that the teaching and learning outcomes were equivalent to traditional classrooms, while those who had never taught online or had previous negative experiences did not feel the teaching and learning outcomes were mostly the same. A few participants were comfortable with teaching entire courses online.

Walters et al. (2017) conducted a study that aimed to design and deliver meaningful professional development programs for faculty who teach online. They surveyed the perceptions of 314 faculty members regarding the online environment and institutional factors, personal factors, and student engagement and active learning. The study revealed that faculty are highly satisfied with the accessibility of their courses and the technical support they receive, but they reported lower levels of satisfaction with the effectiveness of online communication tools. The results also revealed a significant difference in how faculty rated their satisfaction with student engagement and active learning based on their level of experience. The study results indicated that new faculty in online teaching might need different approaches to prepare them for the online environment.

Faculty Perspectives in Saudi Arabia.

In the Saudi context, a few studies were conducted to investigate the attitudes of faculty members toward E-learning in higher education. Overall, faculty have a positive perspective of E-learning (Alenizi, 2012; Alkhalaf et al., 2012; Hamdan, 2014).

Alenizi’s study (2012) was aimed to investigate faculty members’ attitudes toward E-learning in higher education in Saudi Arabia and the factors influencing their attitudes. The findings revealed that perceptions of females were more positive than those of males. Perceptions also affected by age differences in which the faculty under 44 years had a stronger perception of E-learning than those over the ages of 45. The results revealed that faculty members who had less teaching experience had a more positive perception than those
who had been teaching for over 10 years. Overall, faculty members had a positive perspective with regard to E-learning.

In a similar study, Alkhalaf et al. (2012) investigated the impact of E-learning systems in higher education institutions from the perceptions of faculty members who are using E-learning in two top universities in the KSA. The results of the study revealed that participants faculty have positive attitudes toward E-learning systems. It helps faculty members to improve their job performance and educational organizations to provide better and new products and services to users. These results also have been confirmed by Hamdan (2014) who conducted a mixed-methods study to explore the perceptions of faculty members who had taught or were currently teaching online courses in order to identify how they perceive online learning (OL) in contrast to face-to-face (F2F) or blended learning (BL). The finding showed that the participants in the study preferred online and combined learning/teaching approaches over traditional face-to-face learning/teaching approaches. Several participants reported that online teaching had increased their productivity, even though there was an increase in their workload.

**Challenges Facing Faculty in Online Education**

Although numerous studies revealed that faculty are satisfied with their online experiences, other reviews mentioned that a few online faculty remain doubtful about online education (AbuZayyad-Nuseibeh, 2017; Allen & Seaman, 2012; Kibaru, 2018; Lloyd, Byrne and McCoy, 2012). A study by AbuZayyad-Nuseibeh (2017) aimed to investigate faculty perceptions toward the transitioning process from face-to-face to online instruction. The study was exploratory, using a survey research design to answer the research questions. The respondents were faculty members who had taught online at the University of South Florida (USF) main campus (Tampa) and St. Petersburg campus. There was a total of 121 respondents to the survey. In the study findings, faculty members reported that there is a need
for more opportunities for additional technical and instructional design training and that it must be a requirement prior to teaching online. Faculty members indicated that transitioning to online instruction is time-consuming and demands a lot of work and effort to develop quality online courses. They implied that university administrators, in particular, do not appear to be fully aware of the necessary amount of time and effort that must be spent in such a transitioning process.

In the study by Lloyd et al. (2012), the purpose was to determine the perceived barriers to online teaching experienced by various faculty groups. The study sought to identify the most prevalent barriers to online instruction for the faculty group surveyed. The results revealed a few notable differences in the perceived barriers that exist between faculty groups on four constructs identified through the analysis. The first factor was interpersonal barriers. This factor includes five questions concerning how the following aspects negatively impact faculty engagement in online education: lack of personal relationship with students; creation of an impersonal atmosphere; the impact of interpersonal barriers on course quality; lack of visual cues from students; and lack of social interaction within the class. The second factor was the institutional policy barriers factor, which involves four questions regarding a lack of policies or standards for online courses, lack of control over property rights, lack of faculty involvement in course decision-making; and the value of online work toward promotion and tenure. The third factor was the training and technology barriers factor, which included four questions on inadequate instructor training, inadequate technology support, frequent technology failures, and rapidly changing the software or delivery systems. The fourth factor was the cost/benefit analysis barriers factor, which involves four questions regarding increased workload, increased time commitment, inadequate time for student/assignment grading and feedback, and inadequate compensation for instruction.
In the same vein, Kibaru (2018) conducted a qualitative study that aimed to identify the main challenges that faculty encounter when they design and deliver quality online courses. The main challenges that emerged can be classified into three themes — first, proximity to learners where faculty presented the difficulties that online environments may present. For example, faculty face challenges in understanding students and their learning needs and in observing and assessing the practical application of knowledge obtained in an online course. The second theme was the teaching load, where participants reported that teaching online is time-intensive and that the situation becomes worse when the number of students is relatively high. The third theme was faculty support. Faculty indicated the need for developed technological, pedagogical, and administrative support to overcome issues originating from course design, limitations of course management systems, acquisition, and maintenance of newer innovative technologies for teaching and learning and remaining updated with relevant technologies.

Dudak (2009) conducted a phenomenological qualitative study that aimed to investigate the perceptions of online teaching among graduate faculty members. The participants were five graduate faculty members from a religious graduate school located in the mid-south. By analyzing the content, several themes emerged from the data: (a) online teaching took more work time than face-to-face teaching, (b) faculty members taught online because of extrinsic motivators, (c) online interaction is different than face-to-face, (d) good institutional support is essential for a successful teaching experience, (e) online courses make it difficult to mentor students, (f) the faculty members grew to like online teaching despite their initial negative perceptions, and (g) online courses enable shy students to participate in class.

Overall, it may be said that there is a semi-consensus that online teaching is different and may be more complicated than face-to-face teaching. Faculty reported that online
teaching demands faculty to use different methods. In addition, studies revealed that faculty, in general, are satisfied with their online teaching experiences. Some faculty mentioned that there is a real need for university leaders to understand these differences and support faculty with professional development before engaging them in online teaching.

**Students’ Perspectives regarding Online Education**

The results of prior studies on students’ attitudes and satisfaction with online learning are varied; a few find that students have positive attitudes toward online education (Al-Fahad, 2010; Almalki, 2011). Others find that students prefer face-to-face learning due to quality and accreditation concerns (Abedalla et al., 2014; Cole, 2016).

The purpose of the study by Armstrong (2011) was to describe undergraduate students’ experiences and perceptions of online courses. The results demonstrated the role of communication in shaping students’ perceptions and attitudes to learning. In addition, the participants also indicated that online learning is less academically rigorous than their experiences in face-to-face education.

Cole (2016) aimed to investigate whether student preferences for face-to-face (F2F) communication affected students’ communication satisfaction. The study examined online communication satisfaction variables (student–instructor and student–peer), student online course satisfaction, F2F communication satisfaction variables (student–instructor and student–peer), and F2F course satisfaction. The findings demonstrated that students were more highly satisfied with face-to-face communication and courses. However, there was no evidence found confirming that face-to-face preference negatively impacted online course satisfaction. Instead, the findings revealed that interaction with online instructors is the most significant predictor of student satisfaction with online courses.

**Students’ Perspectives in Saudi Arabia**
In the Saudi context, Al-Fahad (2010) aimed to investigate students’ satisfaction with online learning in the College of Applied Studies and Community Service, King Saud University, Riyadh, Saudi Arabia. The sample included 201 female students from that college. The findings revealed that students were highly satisfied with E-learning, which appeared to provide more benefits than traditional learning.

Almalki (2011) investigated students’ perspectives regarding instructors’ websites. The participant students reported that the websites of their instructors were useful to communicate and enhance interaction. The students also mentioned that they used these websites for course administration and access to lecture and revision material. Female students reported higher approval of the websites’ benefits than males. Further, female students stated that the sites had a more significant influence on their learning, communications, and interactions.

The aim of Abedalla et al. (2014) was to identify Saudi students’ perceptions regarding their education system and to ascertain whether they perceive any difference between online and on-ground education in quality and accreditation. The results demonstrated that participants prefer on-ground education over online education due to quality and accreditation.

**Influence of Gender on Online Learning from Students’ Perspectives.** There are mixed findings of prior studies on gender influences in perspectives and satisfaction with online education. A few studies found no differences between genders (Amparo et al., 2018; Harvey et al., 2017; Koohang & Durante, 2003; Smart & Cappel, 2006), while others observed that gender does play a key role in students’ attitudes towards online classes (Tanner et al., 2009; Womble, 2008; Zhao & Mei, 2016; Xu & Columbia University, 2013).

A few differences have been found in terms of attitudes toward online learning as well as the use of online technologies. According to a survey of 67 female and 89 male
employees taken from the Hsin-Chu Science-based Industrial Park in Taiwan, Ong and Lai (2006) reported that, in general, males were more comfortable with and interested in computers than females. They also possessed higher self-efficacy and experience in using the internet than females. This result was also confirmed by Kay (2009) and Tsai and Tsai (2010), who found that male participants are largely more efficient with computers than females and that males have substantially higher internet use than females.

However, other studies revealed that females have more positive attitudes than males (Cuadrado-García et al., 2010; Zhao & Mei, 2016). Albert and Johnson (2011) found that both genders, on average, view E-learning systems positively, but females had somewhat more positive attitudes as compared to males. Rovai and Baker (2005) reported that female students tend to find online learning more social and beneficial than male students do. The study found that females present higher satisfaction than male students with online learning (González-Gómez et al., 2012).

In addition, the findings of Ashong and Commander (2012) reported that females have a more positive view of online learning than males. These results are in line with previous research that reveals that females are more communication-oriented in an online environment, thereby seeking interaction with others (Tsai & Tsai, 2010). González-Gómez et al. (2012) further report that females display a higher degree of satisfaction with online learning.

**Influence of Academic Discipline on Online Learning from Students' Perspectives.** Despite the increase in online teaching literature, studies associated with disciplinary differences remain limited in number (Lam et al., 2014; Pektas & Gürel, 2014). This gap in the literature can be attributed to the related studies, which has often addressed content concerns generically without considering the disciplinary effects (Pektas & Gürel, 2014).
However, certain studies aim to investigate any disciplinary differences in online learning. Most of these studies have categorized the student’s discipline based on Biglan’s model (1973). Biglan (1973) grouped various disciplines by distinguishing between hard and soft fields of learning. He stated that Hard fields consist of the natural sciences, medicine, and technology; while soft fields include the humanities and most of the social sciences. Based on Biglan’s taxonomy (1973), academic disciplines can also be categorized based on whether a discipline has a concentration on an application or includes real-world problem-solving (applied), or places more attention on knowledge acquisition (pure). See Figure 1.

**Figure 1.**

Biglan’s taxonomy of academic disciplines.

<table>
<thead>
<tr>
<th>Task area</th>
<th>Hard Nonlife system</th>
<th>Life system</th>
<th>Soft Nonlife system</th>
<th>Life system</th>
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<tbody>
<tr>
<td>Pure</td>
<td>Astronomy</td>
<td>Botany</td>
<td>English</td>
<td>Anthropology</td>
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<td></td>
<td>Chemistry</td>
<td>Entomology</td>
<td>German</td>
<td>Political science</td>
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<td>Geology</td>
<td>Microbiology</td>
<td>History</td>
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<td>Physics</td>
<td>Zoology</td>
<td>Russian Communications</td>
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<tr>
<td>Applied</td>
<td>Ceramic engineering</td>
<td>Agronomy</td>
<td>Accounting</td>
<td>Educational administration</td>
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<td></td>
<td>Civil engineering</td>
<td>Dairy science</td>
<td>Finance</td>
<td>and supervision</td>
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<td></td>
<td>Computer science</td>
<td>Horticulture</td>
<td>Economics</td>
<td>Secondary and continuing</td>
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<td></td>
<td>Mechanical engineering</td>
<td>Agricultural economics</td>
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<td>Vocational and technical education</td>
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A study by Lam et al. (2014) focused on interdisciplinary differences in three main issues related to E-learning: use of technology, use of technology for teaching and learning, and perceptions regarding E-learning strategies. The authors classified disciplines into soft/hard and pure/applied based on Biglan’s model (1973). The results demonstrated that
although students of different disciplines did not significantly vary in their daily usage of technology, there were a few differences in their level of confidence in using technology. The use of technology for teaching and learning also varied across disciplines. For example, students in Applied disciplines had more experience in employing web-based communication tools to learn compared with students in Pure disciplines. However, there were no significant variations in terms of students’ perceptions of the usefulness of E-learning strategies. The findings confirmed that while there may be a few disciplinary differences in the adoption of E-learning, all participants have a positive attitude regarding the need for using technology in learning.

This result is similar to that of Pektas and Gürels’ (2014) study, which revealed that students from the knowledge base in soft-applied disciplines tend to be more eclectic. Unlike pure courses, applied courses use information from diverse sources, which depend on textbook generated materials. Therefore, students from soft-applied fields tend to use online tools in seeking specific information in an efficient manner. These results agreed with those of Smith et al.’s study (2008), which aimed to analyze differences between online courses in disciplinary quadrants (hard-pure, hard-applied, soft-pure, soft-applied) over five years (2002 and 2007). The study showed significant differences in using online tools between disciplines, particularly for assessment tools. Hard-pure courses used the Tests and Pool tools more widely than did soft-pure courses. The Document tool was used most extensively in applied courses.

**Faculty and Student Perspectives about Online Teaching Skills**

Studies have examined the compatibility of the views between students and faculty members on the essential competencies for online teaching. The findings of these studies were varied. The purpose of Bailie’s sequel study (2011) was to determine whether there is compatibility regarding competencies associated with effective online teaching between two
groups of participants; online faculty members and online students. This investigation confirmed that the consensus between what online faculty and online students perceived as critical educational competencies is still possible. In the first round of the study that included 26 participants, 15 entries were selected from the list of 20 core competencies used in previous studies. The four additional skills provided by the participants were added to this list. The second round led groups to assess the relevance of 19 competencies that were identified in the first round. With regard to the combined group response regarding the observed importance of competencies, mean values indicated that all 19 competencies were considered necessary. The standard deviation was closer for four competencies: feedback skills, interpersonal communication, student participation techniques, and content knowledge. For the remaining 15 competencies, a strong consensus was reached within the combined group (Bailie, 2011).

In contrast, a few studies affirm that there is a significant difference between students’ perceptions and professors’ perceptions regarding the critical competencies of online teachers. The purpose of Abdulla’s study (2004) was divided into three aims: the first one was according to online students, to determine the roles and skills of online instructors in distance learning in higher education to encourage interaction among students; the second purpose was to assess the importance of these skills from the perspectives of distance learning students; the third purpose was to compare the results of this study with those based on the teachers’ perspectives. The results revealed that when compared to previous competency studies, there was a significant difference between students’ perceptions and experts’ perceptions regarding the most important online instructor competencies.

Summary

In this chapter, the researcher discussed literature regarding online education. Most of the studies elaborate the critical role of professional development departments in universities.
They have the primary responsibility to prepare faculty before engaging them in online teaching. The literature also includes studies that have confirmed the importance of that training. The chapter also reviewed a few studies that identified the requisite perspectives, either outside or within Saudi Arabia, associated with the implementation of online education.

More research is needed to explore the competencies and skills required for the online environment in the Saudi context. One of the problems facing online education in Saudi Arabia is the lack of faculty that is prepared for teaching in an online classroom. Professional development departments at Saudi universities have primarily focused on preparing faculty for regular face-to-face teaching. Another problem is that researchers have concentrated mainly on teaching skills in face-to-face classes. Thus far, no known research has explored competencies for online education from students’ perspectives in the Saudi context. However, extant research has confirmed that there are differences between faculty perspectives and student perspectives regarding E-learning; therefore, there is a need to study students’ perspective. Consequently, this study is an opportunity to fill the knowledge gap in the literature by studying students’ perspectives in this regard.
CHAPTER THREE

Methodology

This chapter describes the research methodology employed in this study. The first section reviews the rationale underlying the selection of a survey technique. The second describes the procedure, which includes population, sample, response rate, and the instrument. Finally, there is a brief review of the data collection process and the analysis techniques utilized to examine the data.

The primary purpose of the study is to contribute to the literature by determining the competencies for online faculty in Saudi Arabia from the perspectives of students. The results from this study provide sufficient content that can be included in development programs to prepare instructors for online teaching. This study is primarily descriptive in nature and utilizes a quantitative method to answer the research questions; therefore, a survey technique was determined to be the most appropriate (Borg & Gall, 1989). Gay et al. (2008) referred to descriptive studies as “practical for investigating a variety of educational problems, and concerned with measuring perceptions, opinions, demographics, and procedures.” Creswell (2012) defines survey research designs as “procedures in quantitative research in which investigators administer a survey to a sample or to the entire population of people to describe the attitudes, opinions, behaviors, or characteristics of the population” (p. 376). As Creswell (2013) explains, a survey design “provides a quantitative or numeric description of trends, opinions, attitudes, or opinion of a population by studying a sample of that population” (p. 155).

Surveys are widely used for both descriptive and explanatory purposes. Among all approaches to social research, surveys offer the most efficient means of social description; they can provide extraordinarily detailed and accurate information regarding a large heterogeneous population. By using probability sampling (which is a sample that pulled in a
way that each unit in the population has a predetermined probability of selection), the researcher can specify whether the responses to a sample survey accurately describe the larger target populations. Moreover, surveys can address a much broader range of research topics than experiments (Abdulla, 2004).

Research Questions

The study addressed the following research questions:

1. What are the competencies for the faculty member in online classes from the SEU students’ perspectives?
2. Do the SEU students’ perspectives of the competencies for the faculty member in online classes differ due to the students’ gender?
3. Do the SEU students’ perspectives of the competencies for the faculty member in online classes differ due to the students’ academic discipline?

Research Variables

Independent variables. Independent variables in this study are gender (Male/Female), and disciplinary groups as followed:

- The College of Administrative and Financial Sciences.
- The College of Computing and Informatics.
- The College of Health Sciences.
- The College of Science and Theoretical Studies.
- Common First Year (Preparatory year).

Dependent variables. The dependent variables for this study are the online teaching competencies that used in the study’s survey:

- Active Learning.
- Administration/Leadership.
- Active Teaching.
• Multimedia Technology.
• Classroom Decorum.
• Technological Competency
• Policy Enforcement.

Population

The target population for this study is the undergraduate students at the Saudi Electronic University (SEU) in Saudi Arabia, which is 21425 undergraduate students. Tables 2 and 3 presents the populations and the SEU colleges and majors (SEU, n.d.). The reasons for choosing students from SEU are (a) it is the only university that offers online education in Saudi Arabia currently, and (b) the researcher has a contact person in the university, so this would help to increase the participants’ response rates. The students in the sample vary in terms of gender and academic disciplines, as they belong to the following 10 bachelor programs as well as students from Common First Year (Preparatory year):

• The College of Administrative and Financial Sciences.
• The College of Computing and Informatics.
• The College of Health Sciences.
• The College of Science and Theoretical Studies.

Table 2

<table>
<thead>
<tr>
<th>Years</th>
<th>College</th>
<th>Saudi Male</th>
<th>Saudi Female</th>
<th>non-Saudi Male</th>
<th>non-Saudi Female</th>
<th>Total Male</th>
<th>Total Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019-2020</td>
<td>College of Administrative and Financial Sciences</td>
<td>1579</td>
<td>1467</td>
<td>96</td>
<td>128</td>
<td>1675</td>
<td>1595</td>
<td>3270</td>
</tr>
<tr>
<td></td>
<td>College of Computing and Informatics</td>
<td>1050</td>
<td>596</td>
<td>136</td>
<td>92</td>
<td>1186</td>
<td>688</td>
<td>1874</td>
</tr>
<tr>
<td></td>
<td>College of Health Sciences</td>
<td>632</td>
<td>751</td>
<td>11</td>
<td>121</td>
<td>643</td>
<td>872</td>
<td>1515</td>
</tr>
</tbody>
</table>
Table 3

SEU Colleges and Majors

<table>
<thead>
<tr>
<th>College</th>
<th>Programs</th>
</tr>
</thead>
<tbody>
<tr>
<td>The College of Administrative and Financial Sciences.</td>
<td>• Bachelor of Science in Business Administration (BSBA)—Major in Management</td>
</tr>
<tr>
<td></td>
<td>• Bachelor of Science in Business Administration (BSBA)—Major in E-Commerce</td>
</tr>
<tr>
<td></td>
<td>• Bachelor of Science in Business Administration (BSBA)—Major in Accounting</td>
</tr>
<tr>
<td></td>
<td>• Bachelor of Science in Business Administration (BSBA)—Major in Finance</td>
</tr>
<tr>
<td>College of Computing and Informatics.</td>
<td>• Bachelor of Science in Information Technology</td>
</tr>
<tr>
<td></td>
<td>• Bachelor of Science in Computer Science</td>
</tr>
<tr>
<td>The College of Health Sciences.</td>
<td>• Bachelor of Health Informatics</td>
</tr>
<tr>
<td></td>
<td>• Bachelor of Public Health</td>
</tr>
<tr>
<td>College of Science and Theoretical Studies.</td>
<td>• Bachelor of Law Program</td>
</tr>
<tr>
<td></td>
<td>• Bachelor’s program in digital media</td>
</tr>
<tr>
<td></td>
<td>• Bachelor of English Language and Translation Program</td>
</tr>
</tbody>
</table>

Sample

A power analysis using G*Power was conducted to determine the ideal sample size to be selected given the two types of analysis that were conducted to answer the research questions (Faul et al., 2009). Research question 2 was analyzed using the t-test for independent samples to determine if there was a significant difference in the competencies given the student’s gender. It was estimated that a minimum of 102 participants—51 from each gender—would be needed in order to achieve a statistical power of 80%, a level of
significance of Cronbach’s alpha of 0.05, and a medium effect size of 0.5. Research question 3 was analyzed using ANOVA to determine if there was a significant difference in the competencies given the student’s disciplinary group. The sample size estimation was 200 participants for five groups, which is 40 participants from each group to achieve a statistical power of 80%, a level of significance alpha of 0.05, and a medium effect size of 0.25. Since the ANOVA requires a larger sample size, a sample size of 200 participants was designated as the desired sample size.

For this study, the participants were selected randomly using simple random sampling (probabilistic). Johnson and Christensen (2014) recommended utilizing a large sample size in order to minimize the sampling error. According to Creswell (2012), sampling error is the “difference between the sample estimate and the true population score” (p. 146).

On June 22nd, the Scientific Research Deanship in the SEU contacted me to ask about the targeted sample. I explained to them the ideal sample size needed for this study, as mentioned above. They sent the required information to the Students Affairs department, which stratified students by colleges and then by gender and sent out the survey randomly.

**Response Rate**

To obtain the optimal number of responses, I also used the following formula, which is recommended in Johnson & Christensen (2014):

\[
\text{Desired sample size} = \frac{\text{Number of people to include in original sample}}{\text{Proportion likely to respond}}
\]

Based on Fincham (2008), I expected 25% of the sample to respond and, thus, the number of students to include in the original sample was \(\frac{200}{0.25} = 800\) undergraduate students.

There were 244 participant responses to the survey out of the 800 students who received the survey—126 participants (52.07%) of the sample were males and 116 (47.93%) participants were females.
There were 22 male and 22 female students from the Administrative and Financial Sciences College; 32 male students and 25 female students from the Computing and Informatics College; 23 male students and 22 female students from the College of Health Sciences has 23 male students and 22 females; 27 male students and 22 females from the Science and Theoretical Studies College; and 22 male students and 24 female students from Common First Year. The data represent total population samples for each college. Once the data were imported into the software, a listwise deletion was used to clean the data. In addition, a frequency count was conducted to determine any missing cases, non-responses, skips, etc. The data was then cleaned of such errant data and deleted from the data set, thereby disqualifying them from participating in the study. This reduced the data down to 226 participant responses.

Instrument

Researchers use surveys to collect information that describes participants’ beliefs, feelings, opinions, attitudes, trends, values, and perspectives (Creswell, 2012). The survey instrument used in this study to collect the data is a survey questionnaire that was used in Bigatel et al. (2012). For this study, written permission was obtained from one of the authors (Dr. Ragan) to utilize the questionnaire. The purpose of their research was to identify and categorize the critical competencies for online teaching success from the perspective of experienced online faculty and professionals, such as instructional designers, online program managers, support and technical staff, and administrators. The authors constructed the instrument based on an extensive review of the literature and interviews with experienced faculty and staff, documenting their best practices for online teaching. The sample was from Penn State university. The authors identified effective practices associated with behavioral, philosophical, and attitudinal aspects of teaching online and then came up with a list of approximately 64 items. The authors utilized several analyses to examine the survey
questions. First, they calculated Cronbach’s alpha to assess the reliability of the survey instrument (alpha = 0.94). They also ran a factor analysis to examine the research question related to competencies for successful online teaching. The factor analysis groups items together based on their inter-item correlations to see what behaviors fit together based on participant response patterns. Thirty-three tasks did not cluster into any of the seven competencies through the factor analysis. In this study, I only excluded one item that was related to the Federal Educational Rights & Privacy Act (FERPA) because it was not related to the Saudi context. Therefore, 29 items that been divided into the seven categories as described below:

- The first competency is “active learning” (eigenvalue = 14.00) and includes 10 items with inter-item correlation ranging from 0.47 to 0.82. The reliability of the factor is 0.93 (Cronbach’s alpha).
- The second competency is called “administration/leadership” (eigenvalue = 3.79). This competency includes four items with inter-item correlations ranging from 0.45 to 0.68. The reliability of the factor is 0.46 (Cronbach’s alpha).
- The third competency is labeled “active teaching/responsiveness” (eigenvalue = 2.99). Responsiveness includes five items with inter-item correlations ranging from 0.43 to 0.74. The reliability of the factor is 0.72 (Cronbach’s alpha).
- The fourth competency includes two items and is called “multimedia technology” (eigenvalue = 2.44). The reliability of the factor is 0.84 (Cronbach’s alpha).
- The fifth competency is “classroom decorum” (eigenvalue = 2.38). Classroom decorum consists of four items with inter-item correlations ranging from 0.43 to 0.76. The reliability of the factor is 0.77 (Cronbach’s alpha).
• The sixth competency is "technological competence" (eigen value = 2.14), which emerges as a factor. It includes two items, and the reliability of the factor is 0.79 (Cronbach’s alpha).

• Finally, the competency of "policy enforcement" (eigenvalue = 1.93). It includes two items and the reliability of the factor is 0.82 (Cronbach’s alpha).

The instrument is a seven-point Likert survey. Participants were asked to select from 1 to 7, where one is described as “not important” and seven is described as “very important.” The following sentence provided the guideline for responses: “How important is it for the online instructor to practice the following skills.” The data was ordinal, where responses were ranked in order of strength. The survey also collected demographic information regarding the participants and asked that they identify their gender and academic discipline.

The study used the “Qualtrics.com” platform to electronically distribute the questionnaire and collect the data from the respondents. Qualtrics.com has several features that satisfy the requirements for such research as security of data sent and stored. Respondents are not required to identify themselves when answering the survey questions and the only person who has the authority to view respondents’ answers is the researcher. The ease of access for respondents to the survey as well as the ease of filling out and submitting the survey was another feature to use Qualtrics.com.

**Data Collection**

**Seeking Protection of Human Subjects**

Because this study is conducted in the SEU, it was mandatory to obtain their approval first. The SEU provided approval to survey undergraduate students on May 4, 2020 (Appendix D). Then, I applied to the Research Ethics Committee of the Seton Hall University Institutional Review Board. Approval from the Research Ethics Committee of the Seton Hall University Institutional Review Board was obtained on June 17, 2020 (Appendix C).
For this study, I sought approval from the Seton Hall University IRB to conduct the study. Upon approval, I asked the Vice President for Deanship of Scientific Research at Imam Abdulrahman Bin Faisal University via email to send an official letter to SEU that explains the research goals and asks SEU to facilitate the research procedures and enable me to distribute the questionnaire. After obtaining permission from the SEU to distribute the questionnaire, I sent an electronic copy of the survey to the Deanship of Information Technology at SEU to distribute it to randomly selected students based on the size of the study sample, which was previously determined. In the email, I introduced myself to the students, informed them of the study’s objectives, encouraged them to participate in the survey, and ensured their confidentiality. By September 1, 2020, the survey was closed in order to begin the analysis process.

**Data Analysis**

For this study, I utilized various statistical methods from SPSS to analyze the study’s data. For Q1, descriptive statistics of the responses from students were conducted to describe the demographic variables. There were questions regarding the participant’s gender, age group, college, and the number of times he/she experienced online courses. The descriptive analysis helps summarize, explain, and represent a group of numbers or scores (Johnson & Christensen, 2014). I also ran a reliability analysis for the seven competencies/skills that I focused on in this study using Cronbach’s alpha in the SPSS.

A t-test was used to answer Q2 in order to test whether students’ gender significantly influences their perspectives on the competencies that must be possessed by online faculty. The t-tests are used to compare the means of two groups and identify differences (Field, 2009), thereby making it an appropriate method for analyzing the gender groups. The dependent variables for this question were male and female, while the independent variables were the seven competencies.
For Q3, I used the one-way ANOVA to test whether academic disciplines significantly influence students’ perspectives on the competencies of online faculty. The five colleges were the independent variables for this analysis, and the seven competencies were the dependent variables. An additional t-test was conducted to test any significant difference due to the academic disciplines based on Biglan’s model (1973).

Biglan’s model (1973) classifies academic disciplines into hard academic disciplines such as engineering, chemistry, and biology, which were characterized as having a single paradigm that allowed scientists within the discipline to agree on research methodology, basic concepts, and research questions. Soft academic disciplines such as education, sociology, and health care shortage have a shared paradigm and scientists within these disciplines often debate over methodology and critical concepts. Pure academic disciplines such as mathematics and sociology focus on theory building, while applied academic disciplines such as finance and special education focus on theory application (Marlene et al., 2003). Figure 2 depicts how the sample of this study has been classified based on their academic field:

- The College of Administrative and Financial Sciences. (Soft discipline).
- The College of Computing and Informatics. (Hard discipline).
- The College of Health Sciences. (Soft discipline).
- The College of Science and Theoretical Studies. (Hard discipline).
Figure 2

*Biglan’s Classification of Academic Disciplines.*

<table>
<thead>
<tr>
<th>Task area</th>
<th>Hard Nonlife system</th>
<th>Hard Life system</th>
<th>Soft Nonlife system</th>
<th>Soft Life system</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pure</td>
<td>Astronomy, Chemistry, Geology, Math, Physics</td>
<td>Botany, Entomology, Microbiology, Physiology, Zoology</td>
<td>English, German, History, Philosophy, Russian, Communications</td>
<td>Anthropology, Political science, Psychology, Sociology</td>
</tr>
<tr>
<td>Applied</td>
<td>Ceramic engineering, Civil engineering, Computer science, Mechanical engineering</td>
<td>Agronomy, Dairy science, Horticulture, Agricultural economics</td>
<td>Accounting, Finance, Economics</td>
<td>Educational administration and supervision, Secondary and continuing education, Special education, Vocational and technical education</td>
</tr>
</tbody>
</table>


Finally, a two-way ANOVA used to see if there is an interaction effect between gender and discipline groups based on Biglan’s model (1973).

**General Characteristics of the Sample of Respondents**

The target population for this study was the undergraduate students at the Saudi Electronic University (SEU) in Saudi Arabia which is 21425 undergraduate students. Reasons for choosing students from SEU are (a) it is the only university that offers online education in Saudi Arabia currently, and (b) the researcher has a contact person in the university, so this would help to increase the participants’ response rates. Table 4 shows that students in the sample are vary in gender and academic disciplines as they belong to 11 bachelor programs (SEU, n.d.) as followed, as well as students from Common First Year (Preparatory year):

- The College of Administrative and Financial Sciences.
- The College of Computing and Informatics.
• The College of Health Sciences.

• The College of Science and Theoretical Studies.

Table 4

*Population Characteristics Compare to the Participants Characteristics According to their Colleges*

<table>
<thead>
<tr>
<th>College</th>
<th>Population Male</th>
<th>Population Female</th>
<th>Participants Male</th>
<th>Participants Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>College of Administrative and Financial Sciences</td>
<td>1675</td>
<td>1595</td>
<td>22</td>
<td>22</td>
</tr>
<tr>
<td>College of Computing and Informatics</td>
<td>1186</td>
<td>688</td>
<td>32</td>
<td>25</td>
</tr>
<tr>
<td>College of Health Sciences</td>
<td>643</td>
<td>872</td>
<td>23</td>
<td>22</td>
</tr>
<tr>
<td>College of Science and theoretical studies</td>
<td>1183</td>
<td>524</td>
<td>27</td>
<td>22</td>
</tr>
<tr>
<td>Common First Year</td>
<td>7212</td>
<td>5847</td>
<td>22</td>
<td>24</td>
</tr>
<tr>
<td>Total</td>
<td>11899</td>
<td>9526</td>
<td>126</td>
<td>115</td>
</tr>
<tr>
<td>Grand Total</td>
<td>21425</td>
<td></td>
<td>241</td>
<td></td>
</tr>
</tbody>
</table>

According to the college, the sample size was 241 compared to 21,425 undergraduate students in the SEU. There were 44 participants from the College of Administrative and Financial Sciences, 22 were male, and 22 were female. The number of male students in this college is 1675, while female students' number is 1595. The number of students from the College of Computing and Informatics is 1186 males and 688 female students. In comparison, the participants from the same college were 32 males and 25 female students. The number of College of Health Sciences is 643 male and 872 female students, while the number of participants in this study was 23 male and 22 female participants. The College of Science and Theoretical Studies include 1183 male and 524 female students. There were 27 male participants and 22 female participants from this college. Finally, the Common First Year has 7212 male students and 5847 female students. The number of participants was 22 male and 24 female participants.

In detail, there were 244 participant responses to the survey out of the 800 targeted sample. The data represent total population samples for each college. Once the data were
imported into the software, the listwise deletion was used to clean the data. A frequency count was conducted to determine any missing cases, non-responses, skips, etc. The data was then cleaned of this errant data and deleted from the data set, thereby disqualifying them from participating in the study. This reduced the data down to 226 participant responses. The returned surveys were received from all participant types (males, females, and different age groups); therefore, this number of returned and usable surveys was considered to be a representative sample of the population of this study.

The total number of responses is 226 responses, \( n = 115 \) (51.3%) of the respondents were males, and \( n = 110 \) (48.7%) were female students. Eighty-eight (36.3%) of the students reported being between the ages of 18 and 20, eighty-nine (39.4%) were between the ages 21 and 23, and fifty-five (24.3%) were above 23 years old.

Forty-three responses (19.0%) from the total were from The College of Administrative and Financial Sciences. While forty-nine responses (21.7%) were from the College of Health Sciences. In addition, forty-five participants (19.9%) were from the College of Science and Theoretical Studies. Forty-six of the participants (20.4%) were from the College of Computing and Informatics. Forty-three participants (19.0%) indicated they were in the preparatory year.

Table 5 revealed that seven participants (3.1%) took one online class. Ten participants (4.4%) indicated they took two online courses. Moreover, 26 students reported that they took three online courses (11.5%). Forty-one participants said they experienced four online courses (18.1%); fifty-eight of the sample (25.7%) took five online classes before, while sixty-three (27.9%) participants took six online courses. Twenty-one participants (9.3%) reported they took seven or more courses online.

**Table 5**

*General Characteristics of the Sample of Respondents*
<table>
<thead>
<tr>
<th>Variables</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>116</td>
<td>51.3</td>
</tr>
<tr>
<td>Female</td>
<td>110</td>
<td>48.7</td>
</tr>
<tr>
<td>Age group</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18–20</td>
<td>82</td>
<td>36.3</td>
</tr>
<tr>
<td>21–23</td>
<td>89</td>
<td>39.4</td>
</tr>
<tr>
<td>23+</td>
<td>55</td>
<td>24.3</td>
</tr>
<tr>
<td>College</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The College of Administrative and Financial Sciences</td>
<td>43</td>
<td>19.0</td>
</tr>
<tr>
<td>College of Health Sciences</td>
<td>49</td>
<td>21.7</td>
</tr>
<tr>
<td>College of Science and Theoretical Studies</td>
<td>45</td>
<td>19.9</td>
</tr>
<tr>
<td>College of Computing and Informatics</td>
<td>46</td>
<td>20.4</td>
</tr>
<tr>
<td>Not decided yet (Preparatory year)</td>
<td>43</td>
<td>19.0</td>
</tr>
<tr>
<td>How many online classes have you taken?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>7</td>
<td>3.1</td>
</tr>
<tr>
<td>2</td>
<td>10</td>
<td>4.4</td>
</tr>
<tr>
<td>3</td>
<td>26</td>
<td>11.5</td>
</tr>
<tr>
<td>4</td>
<td>41</td>
<td>18.1</td>
</tr>
<tr>
<td>5</td>
<td>58</td>
<td>25.7</td>
</tr>
<tr>
<td>6</td>
<td>63</td>
<td>27.9</td>
</tr>
<tr>
<td>7+</td>
<td>21</td>
<td>9.3</td>
</tr>
</tbody>
</table>

**Summary**

Chapter 3 detailed the methodology for this study. It consisted of the population and the rationale for the individuals selected for this study. It also explained the instrument used for this study as well as the independent and dependent variables identified as they relate to online teaching skills and competencies. The process of data collection and data analysis techniques were also included.
CHAPTER FOUR

Results

Introduction

This study aimed to contribute to the literature, particularly in the Saudi context, by determining competencies for online faculty from the perspectives of students. The results from this study provide acceptable content that can be included in development programs in order to prepare instructors for online teaching. The data used for this quantitative study was derived from an instrument that surveyed undergraduate students at the SEU in Saudi Arabia. The results are presented in this chapter, beginning with the descriptive statistical analyses. Data management included cleaning the data, organization of the variables, and eliminating cases with missing data.

The first section of this chapter includes descriptive statistics for the studied sample. This section contains percentages, means, and standard deviations for categorical and continuous variables. These results are presented in tables, which include cross-tabulations. Then, the results of the t-test and one-way ANOVA are presented, which is used to investigate any difference between students’ perspectives due to their gender and academic discipline. In addition, a two-way ANOVA used to investigate if there was an interaction effect of gender with discipline. The results for this question are presented in tables as well.

In addition, the results presented within this chapter aim to answer the following research questions that guided this study:

1. What are the competencies for the faculty member in online classes from the SEU students’ perspectives?
2. How do the SEU students’ perspectives of the competencies for the faculty member in online classes differ due to the students’ gender?
3. Do the SEU students’ perspectives of the competencies for the faculty member in online classes differ due to the academic discipline of the students?

Findings

Reliability of the Instrument

The questionnaire’s reliability can be tested for internal consistency with scales of usefulness, learning, interactions, and obstacles (Johnson & Christensen, 2008). In this study, the researcher examined the reliability of the survey items based on Cronbach’s Alpha. It is a measure of internal consistency that includes items that relate to and measure a given element; a high value of alpha (> 0.7) is accepted for internal reliability (Bryman, 2008; Pallant, 2007). The Cronbach Alpha value was $\alpha = 0.926$. This high number indicated a high reliability, which provides support for the reliability of the questionnaire content (Liaw et al., 2007, p. 1072).

Research Question Q1. What are the competencies for the faculty member in online classes from the perspectives of SEU students?

To answer this question, means and standard deviations were calculated for each of the 29 items referenced in the survey instrument. The mean for all items was 5.87 on a Likert scale from 1 (not important) to 7 (very important) and the standard deviation was (SD = 0.74). A total of 17 items had a mean higher than the overall average, and 12 had means lower than the average.

Table 6

Mean Ratings of Online Teaching Competencies

<table>
<thead>
<tr>
<th>Competency</th>
<th>Item</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Category</td>
<td>Description</td>
<td>Score 1</td>
<td>Score 2</td>
</tr>
<tr>
<td>---------------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td>Active Teaching</td>
<td>3.2 The instructor provides clear feedback on assignments that enhances the learning experience.</td>
<td>6.19</td>
<td>.995</td>
</tr>
<tr>
<td>Active Teaching</td>
<td>3.3 The instructor cares that students are learning the course content.</td>
<td>6.17</td>
<td>1.042</td>
</tr>
<tr>
<td>Active Teaching</td>
<td>3.5 The instructor uses appropriate strategies to manage the online workload.</td>
<td>6.14</td>
<td>1.021</td>
</tr>
<tr>
<td>Active Teaching</td>
<td>3.4 The instructor helps keep the course participants on task.</td>
<td>6.11</td>
<td>1.098</td>
</tr>
<tr>
<td>Technological Competence</td>
<td>6.2 The instructor is confident with the technology used in the course.</td>
<td>6.06</td>
<td>1.067</td>
</tr>
<tr>
<td>Policy Enforcement</td>
<td>7.1 The instructor monitors students’ adherence to policies on plagiarism.</td>
<td>6.05</td>
<td>1.065</td>
</tr>
<tr>
<td>Multimedia Technology</td>
<td>4.2 The instructor uses multimedia technologies that are appropriate for the learning activities.</td>
<td>6.03</td>
<td>1.024</td>
</tr>
<tr>
<td>Policy Enforcement</td>
<td>7.2 The instructor monitors students’ adherence to policies and procedures of academic integrity.</td>
<td>6.00</td>
<td>1.058</td>
</tr>
<tr>
<td>Active Learning</td>
<td>1.10 The instructor shows respect to students in his communications with them.</td>
<td>5.99</td>
<td>1.062</td>
</tr>
<tr>
<td>Classroom Decorum</td>
<td>5.4 The instructor identifies areas of potential conflict within the course.</td>
<td>5.99</td>
<td>1.123</td>
</tr>
<tr>
<td>Technological Competence</td>
<td>6.1 The instructor is proficient with the technologies used in the online classroom.</td>
<td>5.99</td>
<td>1.109</td>
</tr>
<tr>
<td>Administration/Leadership</td>
<td>2.4 The instructor integrates the use of technology that is meaningful to students.</td>
<td>5.97</td>
<td>.986</td>
</tr>
<tr>
<td>Multimedia Technology</td>
<td>4.1 The instructor uses a variety of multimedia technologies to achieve course objectives.</td>
<td>5.95</td>
<td>1.159</td>
</tr>
<tr>
<td>Classroom Decorum</td>
<td>5.3 The instructor can effectively manage the course communications by providing a good model of expected behavior.</td>
<td>5.94</td>
<td>1.092</td>
</tr>
<tr>
<td>Classroom Decorum</td>
<td>5.2 The instructor resolves conflicts when they arise in teamwork assignments.</td>
<td>5.93</td>
<td>1.060</td>
</tr>
<tr>
<td>Administration/Leadership</td>
<td>2.3 The instructor is proficient in the chosen course management system</td>
<td>5.91</td>
<td>1.063</td>
</tr>
<tr>
<td>Administration/Leadership</td>
<td>2.1 The instructor makes grading visible for student tracking purposes.</td>
<td>5.86</td>
<td>1.066</td>
</tr>
<tr>
<td>Administration/Leadership</td>
<td>2.2 The instructor clearly explains expected student behaviors.</td>
<td>5.85</td>
<td>1.150</td>
</tr>
<tr>
<td>Active Learning</td>
<td>1.8 The instructor makes learning activities that help students construct solutions.</td>
<td>5.81</td>
<td>1.108</td>
</tr>
<tr>
<td>Classroom Decorum</td>
<td>5.1 The instructor helps students resolve conflicts that arise in collaborative teamwork.</td>
<td>5.79</td>
<td>1.213</td>
</tr>
<tr>
<td>-------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------</td>
<td>-------</td>
<td>-------</td>
</tr>
<tr>
<td>Active Learning</td>
<td>1.5 The instructor provides opportunities for hands-on practice so that students can apply learning.</td>
<td>5.69</td>
<td>1.115</td>
</tr>
<tr>
<td>Active Learning</td>
<td>1.6 The instructor provides additional resources that encourage students to go deeper into the content of the course.</td>
<td>5.69</td>
<td>1.108</td>
</tr>
<tr>
<td>Active Learning</td>
<td>1.3 The instructor encourages students to share their knowledge with the learning community.</td>
<td>5.66</td>
<td>1.125</td>
</tr>
<tr>
<td>Active Learning</td>
<td>1.7 The instructor encourages student-generated content, as appropriate.</td>
<td>5.66</td>
<td>1.056</td>
</tr>
<tr>
<td>Active Learning</td>
<td>1.4 The instructor encourages students to participate in discussion forums.</td>
<td>5.62</td>
<td>1.192</td>
</tr>
<tr>
<td>Active Learning</td>
<td>1.9 The instructor uses peer assessment in his assessment of student work.</td>
<td>5.61</td>
<td>1.200</td>
</tr>
<tr>
<td>Active Learning</td>
<td>1.2 The instructor includes group/team assignments, where appropriate.</td>
<td>5.50</td>
<td>1.283</td>
</tr>
<tr>
<td>Active Learning</td>
<td>1.1 The instructor encourages students to interact with each other by assigning team tasks and projects.</td>
<td>5.27</td>
<td>1.200</td>
</tr>
</tbody>
</table>

The highest-rated item was “the instructor provides clear feedback on assignments that enhances the learning experience” (M = 6.19, s.d. = 0.995, Table 6). The second highest-rated item was “the instructor shows caring that students are learning the course content” (M = 6.17 and s.d. = 1.04). In third highest-rated item was “the instructor uses appropriate strategies to manage the online workload, where appropriate” (M = 6.14, s.d. = 1.02). The fourth highest-rated item was for the two items “the instructor helps keep the course participants on task” (M = 6.11, s.d. =1.09). In the fifth place was “the instructor provides helpful feedback on assignments that enhances learning” (M = 6.10, s.d. = 1.03). These high-rated items were from the (active teaching) competency, which focuses on the interaction between instructor and students through feedback and communication.

The lowest rated item was “the instructor encourages students to interact with each other by assigning team tasks and projects, where appropriate” (M = 5.27, s.d. = 1.20). The
second lowest-rated item was “the instructor includes group/team assignments, where appropriate,” (M = 5.50, s.d. = 1.28). Both items belonged to the first competency—Active Learning. However, both items still have relatively high means, which indicates that the survey participants thought all of the items were of relative importance and needed in the online class. It also should be considered that the variability is quite low overall. The difference between the top and the bottom items is less than 1 point on the Likert scale.

When comparing the means organized into competencies in Table 6, the emerging patterns correspond with earlier research on effective teaching practices. The top five high-rated items are affiliated with the active teaching competency, which can be related to various communication aspects. Behaviors in this competency depend on aspects of responsiveness and the quality of feedback. The instructor must be active, visible, and reacting to students in order to support their learning progress. The competency is also associated with the classroom’s communication methods and social aspects of the learning experience.

The other five competencies vary in terms of the rating. The competencies of technological competence, policy enforcement, multimedia technology, classroom decorum, and administration/leadership have recorded high means, which indicated a wide range of instructor practices that are critical for successful course completion.

The active learning competency has occupied the last eight places in the importance of online teaching competencies. Bigatel et al. (2012) proposed that active learning is a student-centered teaching and has been considered a strategy to increase student engagement and motivation by numerous activities. For example, open-ended and problem-based questions involve critical thinking, simulations, role play, and team/group activities. It also includes tasks such as constructing hands-on practice, student-generated content, team tasks, and peer assessment, which were mentioned in the literature regarding active learning (Bigatel et al., 2012).
Q2. Do the SEU students' perspectives of the competencies for the faculty member in online classes differ due to the students' gender?

In order to investigate if gender plays a critical role in students’ perspectives, Table 7 presents the results of the independent samples t-test that was run to answer the question and examine the hypotheses. The following is the hypothesis for this question:

There is a statistically significant difference in SEU students’ perspectives regarding the competencies of faculty members teaching online classes due to gender.

Table 7

Mean Rating of Competencies by Gender

<table>
<thead>
<tr>
<th>Competency</th>
<th>Male M</th>
<th>Male Sd</th>
<th>Female M</th>
<th>Female Sd</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
<th>95% Confidence Interval of the Difference Lower</th>
<th>95% Confidence Interval of the Difference Upper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active Learning</td>
<td>5.7836</td>
<td>0.60173</td>
<td>5.5327</td>
<td>0.92688</td>
<td>2.400</td>
<td>185.459</td>
<td>0.017</td>
<td>0.25089</td>
<td>0.10455</td>
</tr>
<tr>
<td>Administration/Leadership</td>
<td>6.0797</td>
<td>0.72051</td>
<td>5.7023</td>
<td>1.01112</td>
<td>3.217</td>
<td>196.139</td>
<td>0.002</td>
<td>0.37747</td>
<td>0.11734</td>
</tr>
<tr>
<td>Active Teaching</td>
<td>6.2672</td>
<td>0.70917</td>
<td>6.0036</td>
<td>1.03693</td>
<td>2.219</td>
<td>191.439</td>
<td>0.028</td>
<td>0.26361</td>
<td>0.11879</td>
</tr>
<tr>
<td>Multimedia Technology</td>
<td>6.0991</td>
<td>0.78358</td>
<td>5.8636</td>
<td>1.13313</td>
<td>1.808</td>
<td>192.709</td>
<td>0.072</td>
<td>0.23550</td>
<td>0.13025</td>
</tr>
<tr>
<td>Classroom Decorum</td>
<td>6.0496</td>
<td>0.74544</td>
<td>5.7568</td>
<td>1.12543</td>
<td>2.293</td>
<td>187.758</td>
<td>0.023</td>
<td>0.29275</td>
<td>0.12769</td>
</tr>
<tr>
<td>Technological Competencies</td>
<td>6.2328</td>
<td>0.78417</td>
<td>5.8091</td>
<td>1.20203</td>
<td>3.120</td>
<td>186.016</td>
<td>0.002</td>
<td>0.42367</td>
<td>0.13578</td>
</tr>
<tr>
<td>Policy Enforcement</td>
<td>6.1810</td>
<td>0.74424</td>
<td>5.8864</td>
<td>1.14271</td>
<td>2.284</td>
<td>185.828</td>
<td>0.024</td>
<td>0.29467</td>
<td>0.12902</td>
</tr>
</tbody>
</table>

The first part of the t-test presented the results of the Levene’s Test for Equality of Variances. It tests whether the variance of scores the two groups (male and female) is the same. If the variances for the two groups are equal (i.e., Sig. > 0.05), the researcher must use the output in the *Equal variances assumed* row. However, if the variances for the two groups are significantly different (i.e., Sig. < 0.05), the researcher must use the output in the *Equal variances not assumed* row. In this case the Sig values were equal and less than .05. Thus, the
variances of the two groups were not equal, and therefore the output in the Equal variances not assumed row must be used (Pallant, 2007).

The t-test revealed a significant difference between males and females in all the seven competencies. The t-test revealed a difference in the $p < 0.05$ level of significance between males and females for six of the seven competencies; active learning ($p = 0.017$); administration/leadership ($p = 0.002$), active teaching ($p = 0.028$), classroom decorum ($p = 0.023$), technical competencies ($p = 0.002$), and policy enforcement ($p = 0.024$). While there was no significant difference between males and females in the fourth competency (multimedia technology) $p = 0.072$, the table shows that the means for males were higher than the means for females. Male participants ascribed more importance to these competencies in online classroom than females.

**Q3. Do the perspectives of SEU students regarding the competencies of faculty members in online classes differ due to the students’ academic discipline?**

Earlier studies have documented a difference between students in dealing with online learning due to disciplinary differences (Lam et al., 2014; Pektas and Gürels, 2014; Smith et al., 2008). Numerous studies have classified disciplines based on Biglan’s model (1973), who sorted the different disciplines by distinguishing between hard and soft learning fields. He classified the natural sciences, medicine, and technology as hard fields, and the humanities, and most of the social sciences as soft fields. The following is the corresponding hypothesis for this question:

- There is a statistically significant difference in the perspectives of SEU students regarding the competencies of faculty members in teaching online classes on account of academic discipline.
For this study, a one-way between-groups ANOVA was performed to determine if students’ perspectives regarding online competencies for faculty varied by discipline. The subjects were divided into five groups according to their colleges, which are listed below:

- The College of Administrative and Financial Sciences.
- The College of Computing and Informatics.
- The College of Health Sciences.
- The College of Science and Theoretical Studies.
- Common First Year (Preparatory year).

The one-way ANOVA test (see table 8) revealed no significant differences in students’ perspectives across the five academic categories. The p-value for the active learning competency was \( F(1.773), p = 0.135 \); administration/leadership competency \( F(0.314), p = 0.868 \); active teaching competency \( F(0.476), p = 0.753 \); multimedia technology competency \( F(0.334), p = 0.855 \); classroom decorum competency \( F(0.389), p = 0.816 \); technological competency \( F(0.985), p = 0.417 \); and policy enforcement competency \( F(0.167), p = 0.955 \). The data does not support the research hypothesis that there is a difference in perceptions of the competencies due to academic discipline.

**Table 8**

*Mean Rating of Competencies by Academic Discipline*

<table>
<thead>
<tr>
<th>Competency</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active Learning</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>4.302</td>
<td>4</td>
<td>1.076</td>
<td>1.773</td>
<td>.135</td>
</tr>
<tr>
<td>Within Groups</td>
<td>134.103</td>
<td>221</td>
<td>.607</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>138.405</td>
<td>225</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administration/Leadership</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>1.009</td>
<td>4</td>
<td>.252</td>
<td>.314</td>
<td>.868</td>
</tr>
<tr>
<td>Within Groups</td>
<td>177.422</td>
<td>221</td>
<td>.803</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>178.431</td>
<td>225</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Active Teaching</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>1.537</td>
<td>4</td>
<td>.384</td>
<td>.476</td>
<td>.753</td>
</tr>
<tr>
<td>Within Groups</td>
<td>178.332</td>
<td>221</td>
<td>.807</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>179.869</td>
<td>225</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multimedia Technology</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>1.299</td>
<td>4</td>
<td>.325</td>
<td>.334</td>
<td>.855</td>
</tr>
<tr>
<td>Within Groups</td>
<td>214.924</td>
<td>221</td>
<td>.973</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
An additional T-test was conducted to test if there is any significant difference in students’ perspectives based on their academic field on the basis of Biglan’s model (1973). Biglan classified academic fields into soft/hard and pure/applied fields. The results revealed that there is no significant difference in students’ perspectives on account of their chosen academic field (see Table 9).

### Table 9

**Mean Rating of Competencies Based on Biglan’s Model of Discipline**

<table>
<thead>
<tr>
<th></th>
<th>Soft</th>
<th></th>
<th>Hard</th>
<th></th>
<th>95% Confidence Interval of the Difference</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>Sd</td>
<td>M</td>
<td>Sd</td>
<td>t</td>
<td>Df</td>
</tr>
<tr>
<td>Active Learning</td>
<td>5.5795</td>
<td>0.66387</td>
<td>5.7432</td>
<td>0.70116</td>
<td>-1.618</td>
<td>181</td>
</tr>
<tr>
<td>Administration/Leadership</td>
<td>5.9261</td>
<td>0.79434</td>
<td>5.8474</td>
<td>0.84133</td>
<td>0.650</td>
<td>181</td>
</tr>
<tr>
<td>Active Teaching</td>
<td>6.1364</td>
<td>0.73691</td>
<td>6.1768</td>
<td>0.82403</td>
<td>-0.349</td>
<td>181</td>
</tr>
<tr>
<td>Multimedia Technology</td>
<td>6.0511</td>
<td>0.81311</td>
<td>5.9632</td>
<td>0.95995</td>
<td>0.666</td>
<td>181</td>
</tr>
<tr>
<td>Classroom Decorum</td>
<td>5.9091</td>
<td>0.84093</td>
<td>5.9816</td>
<td>0.91037</td>
<td>-0.558</td>
<td>181</td>
</tr>
<tr>
<td>Technological Competencies</td>
<td>6.0341</td>
<td>0.88016</td>
<td>5.9895</td>
<td>1.06186</td>
<td>0.308</td>
<td>181</td>
</tr>
<tr>
<td>Policy Enforcement</td>
<td>6.0852</td>
<td>0.79590</td>
<td>5.9895</td>
<td>0.95086</td>
<td>0.736</td>
<td>181</td>
</tr>
</tbody>
</table>

In addition, a two-way ANOVA was conducted to determine if there is an interaction effect on the seven competencies between gender and discipline groups based on Biglan’s model (1973). The two-way ANOVA indicated that the interaction effect of the academic discipline group with gender on the students’ perceptions for the seven
competencies was not significant (refer to Appendix E). A different sample was used in the two-way ANOVA, where the two-way ANOVA excluded students in preparatory college. The sample was obtained from the following four main colleges:

- The College of Administrative and Financial Sciences
- The College of Computing and Informatics
- The College of Health Sciences
- The College of Science and Theoretical Studies

The analysis indicated that there was only a significant main effect for the gender (F = 7.157, p = 0.008) in the sixth competency—the technological competencies.

Table 10

<table>
<thead>
<tr>
<th>College</th>
<th>Classification Based on Biglan’s Model</th>
<th>Participants</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>College of Administrative and Financial Sciences</td>
<td>Soft</td>
<td></td>
<td>22</td>
<td>22</td>
</tr>
<tr>
<td>College of Computing and Informatics</td>
<td>Hard</td>
<td></td>
<td>32</td>
<td>25</td>
</tr>
<tr>
<td>College of Health Sciences</td>
<td>Soft</td>
<td></td>
<td>23</td>
<td>22</td>
</tr>
<tr>
<td>College of Science and Theoretical Studies</td>
<td>Hard</td>
<td></td>
<td>27</td>
<td>22</td>
</tr>
</tbody>
</table>

Summary

This study aimed to determine the competencies of faculty members in online classes from the perspectives of SEU students. This chapter attempted to answer the research question guiding this study. The findings presented in this chapter provide a statistical analysis of the impact of requisite competencies in online classrooms, students’ gender, and academic discipline on the perspectives of students. The results demonstrated how students ranked online competencies. The finding also indicated a significant difference in students’ perceptions due to their gender. The means of male students were higher than the means of
female students in all the seven competencies, except the multimedia technologies competency, which implies that male participants ascribed more importance to faculty competencies in an online classroom than females. In addition, there was no significant difference due to academic discipline. There also was no significant difference in students’ perspectives due to their academic fields based on Biglan’s model (1973). The statistics also indicated there was no interaction effect between gender and discipline group in all the seven competencies. Chapter 5 presents the conclusions of these findings, provides implications of this study, and suggestions for further research.
CHAPTER FIVE

Summary, Conclusions, and Implications

The purpose of this study was to contribute to the literature by determining competencies for online faculty from the perspectives of students in Saudi Arabia. The current position of online education in Saudi Arabia is still ambiguous. Since 2017, the Ministry of Education closed all the online degree-granting programs, except those belonging to the SEU, due to inefficient outcomes, quality of education concerns, and accreditation issues. Then, the COVID-19 pandemic impacted the entire world. All educational institutions in Saudi Arabia have to move entirely to virtual learning. The need for this study results is more than ever before. The study’s findings provide valuable content that can be included in development programs to prepare instructors for online teaching.

Summary of Results

The sample in this study came from the SEU in Saudi Arabia. A total of 235 students were responded to determine the required competencies for faculty in an online classroom. Participants were asked to rate 29 items from 1 (not important) to 7 (very important) on a seven-point Likert scale. The mean for all items was 5.87 and the standard deviation was (SD = 0.74). The results proved that communication could be considered one of the essential competencies faculty has to consider. The highest-rated item was “the instructor provides clear feedback on assignments that enhances the learning experience.” The second high-rated item was “the instructor shows caring that students are learning the course content.” In the third place was the item “the instructor uses appropriate strategies to manage the online workload, where appropriate.” In general, the top five high-rated items belonged to the (active teaching) competency, which focuses on the interaction between instructor and students through feedback and communication.
The lowest rated item was “the instructor encourages students to interact with each other by assigning the team with tasks and projects, where appropriate.” The second lowest-rated item was “the instructor includes group/team assignments, where appropriate.” These lowest rated items were from the (active learning) competency. However, the means between items were only minimally different and less than 1. These results correspond with previous literature that indicated the interpersonal communication as the most critical competency in online classrooms (Alubthne, 2018; Strandberg & Campbell, 2014; Young, 2006; Duncan, 2005; Thach & Murphy, 1995).

Despite the argument between student and faculty perceptions regarding the requisite skills in the online classroom, the results demonstrate a consensus of communication and interpersonal skills as essential competencies to online teaching success. This suggests that communication in the online learning environment is perceived as very important, which is aligned with previously published research that utilized the same instrument (Bigatel et al., 2012). It is encouraging to have an agreement on what constitutes necessary teaching competencies that can result in successful online teaching.

Further, a recent study conducted by The National Center for E-Learning (O'Keefe et al., 2020) has shown consistency in participants’ responses where communication emerged as a strong trend from the perceptions of all stakeholder groups. However, there were discrepancies between the perceptions of students and faculty. Faculty continuously expressed an apparent desire for more involvement in decision-making for online teaching and learning at all levels, including administration (strategy, policies) and development (training programs) and online learning delivery (curriculum, evaluation, class management). In addition, Vesely et al. (2007) indicated that while most students and instructors both determined the same elements for building an online community, there were significant ranking differences. Most striking among the differences was that students ranked instructor
modeling as the most critical element in building an online community, while instructors ranked it fourth. Therefore, this study contributes to the Saudi higher education system by highlighting the perspectives of students that appear to be left out of the conversation on the requisite element to succeed in online education. Student voice must be considered in designing faculty training programs. Program designers must consider a balance between faculty and students’ perceptions of online teaching competencies.

The results for Q2 revealed that males and females were different in terms of their perceptions in six out of seven online competencies. These results are consistent with what previous research has found that males and females have different perceptions of online education (Zhao & Mei, 2016; Chang et al., 2014; Xu & Columbia University, 2013; Tanner et al., 2009; Tsai & Tsai, 2010; Womble, 2008). To illustrate, a few earlier studies reported that there were somewhat more positive attitudes from females than males in E-learning (Albert & Johnson, 2011; Ashong & Commander, 2012; Cuadrado-García et al., 2010; Zhao & Mei, 2016). Rovai and Baker (2005) reported that female students tend to find online learning more social and beneficial than male students do. The study found that females present higher satisfaction than male students with online learning (González-Gómez et al., 2012). These results are consistent with previous research that confirms that females are more communication-oriented in an online environment and seek interaction with others (Tsai & Tsai, 2010). González-Gómez et al. (2012) further report that females display a higher degree of satisfaction with online learning.

However, prior studies also indicated that males were more comfortable with and interested in computers than females. They also showed higher self-efficacy and experience in using the Internet than females. This result was also confirmed by Kay (2009) and Tsai and Tsai (2010), who found that male participants are largely more efficient with computers than females and that males have substantially higher internet use than females.
The initial results from Q3 indicated no significant differences in the participants’ perspectives across the five colleges. This contradicts with numerous studies. Studies found differences among students in various academic fields in terms of using technology more often (Lam et al., 2014; Pektas and Gürels, 2014; Smith et al., 2008). The additional t-test analysis indicated that there was no significant difference in the perspectives of participants due to their academic field based on Biglan’s model (1973).

Biglan (1973) sorted the different disciplines by distinguishing between hard and soft fields of learning. He framed hard fields to include natural sciences, medicine, and technology; the soft fields included the humanities and most social sciences. Biglan’s taxonomy (1973) also categorized academic disciplines based on whether a discipline has a concentration on an application or includes real-world problem-solving (applied) or places more attention on knowledge acquisition (pure). Further, two-way ANOVA showed no interaction effect between gender and discipline group on the students’ perceptions; there was only a significant main effect for gender (Sig. = 0.008) in the sixth competency—the technological competencies. The analysis excluded the students in preparatory college and only tested the students from the four main colleges. It also indicated that there is a significant main effect for gender, but no significant main effect for the academic discipline group. This implies that males and females differ in terms of their perceptions regarding the requisite competencies for online courses, but they do not differ in term of their academic discipline fields.

**Limitations of the Study**

The limitations of this study may provide insights that can better facilitate faculty development for online teaching. The first limitation is related to the survey, as it only includes closed questions. Open-ended questions could provide more valuable insight regarding students’ perceptions. Students can explain more about their experiences in online
courses. They can also expand on why they rated an item with a certain score, which can introduce new topic areas that have not been previously considered.

In addition, the findings of my study are limited to only the results obtained from the data. The study is based on the reflection of respondent students from the SEU and, therefore, does not reflect all undergraduate students or faculty. Due to the small sample, the external validity of the results is limited. It does not produce generalizable data. A dataset that consists of the entire undergraduate student population in Saudi Arabia could provide more valuable insight. Moreover, the instrument ignored a few other critical factors that must be considered in an online classroom, such as class size and students’ privacy.

Finally, participants revealed their colleges, but only 18% reported their academic major. Listing all the academic majors instead of asking participants to write them could increase the response rate of future surveys. The existing limitations can provide opportunities for future research in higher education.

**Implications of the Study**

Legislation requires higher education institutions to develop and expand emergency preparedness and response plans. The current situation due to COVID-19 forced numerous educational institutions worldwide to move to online instruction. Therefore, universities’ policies regarding online teaching have to be more adjustable in the context of the impact of the pandemic. Further, the study findings revealed the requisite competencies in teaching in the online environment. By following suggested guidelines and best practices, faculty and institutions can take advantage of this study’s findings to improve the online delivery of Saudi universities if they wish to stand out in a competitive higher education landscape. For example, development programs must teach faculty more forms of communication with students.
Initially, faculty must be aware of the importance of communication with students. They should be advised regarding how ongoing communication is a critical factor to ensure the success of the learning process. For example, instructors must frequently use discussion to encourage students to share their ideas and answer all students’ questions. Students could also propose their thoughts and receive constructive comments from peers or instructors through social media applications. Further, WhatsApp and Facebook groups can help students to communicate with each other or with their instructors 24/7. This would allow students to become more engaged and have a significant impact on their academic outcomes. Faculty must also be technologically prepared. They need to be familiar with most of the virtual platforms that promote contact with students.

This study may also inform that institutions that do not have specific development programs for faculty who are engaged in teaching online courses to consider adopting or developing up-to-date programs. By doing so, Saudi institutions can set clear online education guidelines, such as faculty qualification and training.

In the practice area, online instructors must take advantage of these circumstances. In the absence of face-to-face interaction, instructors must expand online communicating with students. This study found that the highest priority for students in the online classroom is communication and interaction with the instructor. Therefore, instructional designers and administrators must consider students perspectives by enhancing the content of development programs. They need to be more specific in the detailed behavioral tasks that are necessary for teaching success. As is expected, the findings of this study support the emphasis on the training of communication-related teaching strategies and techniques—this essential aspect of online instructor skills is identified as a critical dimension of teaching and education success.

A statistically significant difference was found between genders in terms of requisite competencies in the online classroom. The male students ascribed greater importance to six
of the seven competencies; active learning, administration/leadership, active teaching, multimedia technology, classroom decorum, technical competencies, and policy enforcement. These findings are consistent with studies that cultural factors impact online learning in Saudi universities (Al-Jarf, 2007; Al-Jarf, 2005). The implications of this in practice is to consider such influences in the classroom— instructors must focus on online discussion rather than audio discussion as well as divide team work based on gender.

Although communication skills are indeed critical for online teaching success, this study reveals other essential areas for skill development as well. The findings indicate that almost all the items for teaching competencies were highly rated, thereby suggesting that participants believed that all the stated items were of relative importance and necessary in online learning. Therefore, the online instructor’s training skills must contain immersion in terms of including all areas of teaching skills as well as establishing acceptable practice and refinement of these skills. The providers of professional development must carefully consider implanting and demonstrating the best practices for employing all teaching techniques.

Further, it is important to note that because of the impact of COVID-19, online education will continue to affect teaching and learning. However, online environments are not sufficient and cannot succeed without considering the needs and priorities of students. Online learning courses must be carefully designed to maximize students’ satisfaction with these environments.

**Suggestions for Future Research**

This study highlights the need for continued investigation into all instructional aspects of online environments, moving beyond the current research focus on teaching competencies. The research findings in this study validated the importance of the communication, interaction, technical, and learning competencies of the online instructor from the perspective of the student. Institutions of higher education must utilize the results of this research to
improve training programs for online education. The identified competencies of online instructors could be used as a guide in the content of professional development programs.

Online learning professionals must give specific attention to adopt the competencies identified in this research, since students identified these areas as essential to effective performance. Thus, there is a significant need to conduct qualitative studies to understand students’ perceptions in greater depth and document their experiences in detail. According to the research knowledge, there has been no qualitative study in this area.

Future research must investigate instructors’ perspectives regarding online teaching, particularly in times of COVID-19: the sudden transition to online education, how they understood their roles as facilitators and designers, the required skills in the online classroom, and the training programs they require to develop their teaching tools.

Moreover, further research is needed to examine if there is any relationship between students’ class size and their perspectives of the competencies of online instructors; this must be investigated further to find if larger class size affects the level of participation and interaction among students and what skills the instructor is demanded to have in order to facilitate online learning.

In addition to contributing to the literature, comparisons between instructors and students must made in the Saudi context to determine if there is a difference in perspective that could be made.

The study findings revealed no significant difference between students’ perspectives in accordance with academic discipline. However, the study merely focused on students’ college. Thus, further research is needed to clarify if there is any difference among students across academic programs. Moreover, further research must be conducted to examine on-campus students in online courses.
This study identified the competencies of online instructors in a public institution from the perspectives of students. It is recommended that further research be done to identify different competencies of online instructors that are needed for other sorts of higher education institutions and for various instructional delivery models. Thus, this study must be expanded to include students’ perspectives in different universities in Saudi Arabia.

In addition, further research is needed to widen the investigation on online instructor competencies. The researcher believes that further qualitative research using various methods (e.g., interview) must be conducted to identify what skills an online instructor must have to facilitate and enhance Web-based learning. For example, interviewing faculty and students would be a significant source of obtaining a deep understanding of the competencies required to teach in an online classroom.

Due to the rate of change in the entire world because of COVID-19, it is recommended to conduct additional studies to identify the impact of COVID-19 on online teaching instruments. This dissertation has helped bridge the literature gap by providing a comprehensive list of critical competencies of online instructors from the perspectives of students.

**Conclusion**

This study attempts to contribute to the literature, particularly in the Saudi context, by identifying faculty competencies in online classes from the perspectives of students. A quantitative study among undergraduate students in the SEU was employed to determine the requisite competencies for the online environment. The study also aimed to identify any difference in students’ perspectives due to gender or academic discipline. The findings indicated a difference between males and females in six out of the seven competencies, but found no significant difference across their academic disciplines. This study has opened the door for future research on online teaching field.
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Appendix A: The Study Survey

Competencies for online education

Q1 Gender
   o Male
   o Female

Q2 Age group
   o 18–20
   o 21–23
   o 23+

Q3 Your Collage
   o The College of Administrative and Financial Sciences
   o College of Health Sciences
   o College of Science and Theoretical Studies
   o College of Computing and Informatics
   o Not decided yet (Preparatory year)

Q4 Your Major
   ....................

Q5 How many online classes have you take?
   o 1
   o 2
   o 3
   o 4
   o 5
   o 6
   o 7+

Based on your experience, please rank how important each element is for online teaching:

Active Learning
1.1 Instructor encourages students to interact with each other by assigning team tasks and projects.
   o 1 Not important
   o 2
   o 3
   o 4
   o 5
   o 6
   o 7 Very important

1.2 The instructor includes group/team assignments, where appropriate.
   o 1 Not important
   o 2
1.3 The instructor encourages students to share their knowledge with the learning community.
   o 1 Not important
   o 2
   o 3
   o 4
   o 5
   o 6
   o 7 Very important

1.4 The instructor encourages students to participate in discussion forums.
   o 1 Not important
   o 2
   o 3
   o 4
   o 5
   o 6
   o 7 Very important

1.5 The instructor provides opportunities for hands-on practice so that students can apply learned knowledge to the real-world.
   o 1 Not important
   o 2
   o 3
   o 4
   o 5
   o 6
   o 7 Very important

1.6 The instructor provides additional resources that encourage students to go deeper into the content of the course.
   o 1 Not important
   o 2
   o 3
   o 4
   o 5
   o 6
   o 7 Very important

1.7 The instructor encourages student-generated content, as appropriate.
   o 1 Not important
   o 2
   o 3
   o 4
   o 5
   o 6
   o 7 Very important

1.8 The instructor makes learning activities that help students construct solutions.
   o 1 Not important
1.9 The instructor uses peer assessment in his assessment of student work.
   o 1 Not important
   o 2
   o 3
   o 4
   o 5
   o 6
   o 7 Very important

1.10 The instructor shows respect to students in his communications with them.
   o 1 Not important
   o 2
   o 3
   o 4
   o 5
   o 6
   o 7 Very important

Administration/Leadership skills
2.1 The instructor makes grading visible for student tracking purposes.
   o 1 Not important
   o 2
   o 3
   o 4
   o 5
   o 6
   o 7 Very important

2.2 The instructor clearly explains expected student behaviors
   o 1 Not important
   o 2
   o 3
   o 4
   o 5
   o 6
   o 7 Very important

2.3 The instructor is proficient in the chosen course management system
   o 1 Not important
   o 2
   o 3
   o 4
   o 5
   o 6
   o 7 Very important

2.4 The instructor integrates the use of technology that is meaningful to students.
   o 1 Not important
Active Teaching

3.1 The instructor provides helpful feedback on assignments that enhances learning.
   - 1 Not important
   - 2
   - 3
   - 4
   - 5
   - 6
   - 7 Very important

3.2 The instructor provides clear feedback on assignments that enhances the learning experience.
   - 1 Not important
   - 2
   - 3
   - 4
   - 5
   - 6
   - 7 Very important

3.3 The instructor shows concern that students are learning the course content.
   - 1 Not important
   - 2
   - 3
   - 4
   - 5
   - 6
   - 7 Very important

3.4 The instructor helps keep the course participants on task.
   - 1 Not important
   - 2
   - 3
   - 4
   - 5
   - 6
   - 7 Very important

3.5 The instructor uses appropriate strategies to manage the online workload.
   - 1 Not important
   - 2
   - 3
   - 4
   - 5
   - 6
   - 7 Very important

Multimedia Technology

4.1 The instructor uses a variety of multimedia technologies to achieve course objectives.
4.2 The instructor uses multimedia technologies that are appropriate for the learning activities

Classroom Decorum
5.1 The instructor helps students resolve conflicts that arise in collaborative teamwork

5.2 The instructor resolves conflicts when they arise in teamwork assignments.

5.3 The instructor can effectively manage the course communications by providing a good model of expected behavior.

5.4 The instructor identifies areas of potential conflict within the course

Technological competencies
6.1 The instructor is proficient with the technologies used in the online classroom.
   o 1 Not important
   o 2
   o 3
   o 4
   o 5
   o 6
   o 7 Very important

6.2 The instructor is confident with the technology used in the course
   o 1 Not important
   o 2
   o 3
   o 4
   o 5
   o 6
   o 7 Very important

Policy Enforcement

7.1 The instructor monitors students’ adherence to policies on plagiarism.
   o 1 Not important
   o 2
   o 3
   o 4
   o 5
   o 6
   o 7 Very important

7.2 The instructor monitors students’ adherence to Academic Integrity policies and procedures.
   o 1 Not important
   o 2
   o 3
   o 4
   o 5
   o 6
   o 7 Very important
Appendix B: Approval from the Survey Author

Thursday, September 26th, 2019

Dear Dr. Ragan,

I am a doctoral student from The Higher Education Leadership, Management, and Policy at Seton Hall University, writing my dissertation tentatively titled: Core competencies of faculty members in online courses, under the direction of my dissertation committee chaired by Dr. Martin J Finkelstein. I would like your permission to reproduce to use survey instrument that has been used in: The Identification of Competencies for Online Teaching Success. I would like to use and print your survey under the following conditions:

- I will use this survey only for my research and I will not sell or use it with any compensated or curriculum development activities.
- I will include the copyright statement on all copies of the instrument.
- I will send my research study and one copy of reports, articles, and the like that make the use of this survey data promptly to your attention.

If these are acceptable terms and conditions, please indicate so by sign in one copy of this letter and return it to me either through postal mail or email:

alshuaat@shu.edu

Sincerely,

Atekah Alshuaibi
Doctoral Candidate
Seton Hall University

Expected date of completion: Summer/Fall 2020

Approvals (Signatures):

---------------------------------------------------------------
Appendix C: Approval from the IRB of Seton Hall University

June 17, 2020

Re: Study ID# 2020-081

Dear Ms. Alshaubi,

The Research Ethics Committee of the Seton Hall University Institutional Review Board reviewed and approved your research proposal entitled “The Competencies of Faculty in Online Courses from Perspectives of Saudi Electronic University’s Students” as resubmitted. This memo serves as official notice of the aforementioned study’s approval as exempt. Enclosed for your records are the stamped original Consent Form and recruitment flyer. You can make copies of these forms for your use.

The Institutional Review Board approval of your research is valid for a one-year period from the date of this letter. During this time, any changes to the research protocol, informed consent form or study team must be reviewed and approved by the IRB prior to their implementation.

You will receive a communication from the Institutional Review Board at least 1 month prior to your expiration date requesting that you submit an Annual Progress Report to keep the study active, or a Final Review of Human Subjects Research form to close the study. In all future correspondence with the Institutional Review Board, please reference the ID# listed above.

Thank you for your cooperation

Sincerely,

[Signature]

Mara Poole, PhD, OTR
Associate Professor
Co-Chair, Institutional Review Board
Appendix D: Approval from the SEU to Survey the Student

The competencies for faculty in online classes from perspectives of Saudi Electronic University’s students

Save
Appendix E

Interaction Effect Between Gender and Discipline Group

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Two-way ANOVA

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Dependent Variable: Policy Enforcement

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