



No (37), Part 1, December. 2025, PP 27 - 54

Exploring Students' Perceptions of Faculty Competencies in Online Education

Ву

DR. Atekah Alshuaibi,

Collage of Education, Imam
Abdulrahman bin Faisal University

Exploring Students' Perceptions of Faculty Competencies in Online Education

Dr. Atekah Alshuaibi 🕏

$\mathbf{Abstract} igsim$

This study examines students' perceptions of faculty competencies in online teaching at the Saudi Electronic University (SEU). While online learning has rapidly expanded, many institutions continue to face challenges in ensuring instructional quality and faculty readiness. A total of 226 SEU students participated in an online survey designed to assess essential teaching competencies and to explore variations in perception by gender. Data were analyzed using independent-sample t-tests via SPSS. Findings revealed that the most valued competencies were related to interaction, timely feedback, and effective communication between instructors and students. Significant gender-based differences were observed in six of seven competency areas. The results emphasize the importance of continuous faculty development and digital pedagogy training to sustain the quality of online instruction and align with evolving higher education models. This study contributes to the growing body of knowledge on learner-centered online education within developing and digitally transforming contexts.

Keywords: Online education, online instructor, online student, teaching competencies.

^(*) Collage of Education, Imam Abdulrahman bin Faisal University.

استكشاف تصورات الطلاب حول كفاءات أعضاء هيئة التدريس في التعليـم عبــر الإنتــرنــت

د/عاتكة الشعيبي

ملخـــص

تتتاول هذه الدراسة تصورات الطلاب لكفاءات أعضاء هيئة التدريس في التدريس عبر الإنترنت توسعًا الإنترنت في الجامعة السعودية الإلكترونية .(SEU) في حين يشهد التعلم عبر الإنترنت توسعًا سريعًا، لا تزال العديد من المؤسسات تواجه تحديات في ضمان جودة التدريس وجاهزية أعضاء هيئة التدريس. شارك ٢٢٦ طالبًا من طلاب الجامعة السعودية الإلكترونية في استطلاع رأي عبر الإنترنت ضمم لتقييم كفاءات التدريس الأساسية واستكشاف الاختلافات في التصورات حسب الجنس. خُللت البيانات باستخدام اختبارات t لعينات مستقلة عبر برنامج .SPSS كشفت النتائج أن الكفاءات الأكثر قيمة كانت مرتبطة بالتفاعل، وتقديم التغذية الراجعة في الوقت المناسب، والتواصل الفعال بين الأساتذة والطلاب. ولوحظت فروق جوهرية بين الجنسين في ستة من مجالات الكفاءات السبعة. تؤكد النتائج على أهمية التطوير المستمر لأعضاء هيئة التدريس والتدريب على أصول التدريس الرقمية للحفاظ على جودة التدريس عبر الإنترنت الذي يركز على المتعلم في سياقات التطور الرقمي.

الكلمات الفتاحية: التعليم عبر الإنترنت، المعلم عبر الإنترنت، الطالب عبر الإنترنت، كفاءات التدريس.

Introduction:

The advancement of information and communication technology has significantly transformed education, giving rise to online and digital learning. E-learning—also referred to as virtual or web-based learning—employs digital platforms to deliver instruction remotely, continuing a tradition of distance education that dates back to correspondence courses in the 19th century (Carut & Caruth, 2013; Bergman, 2001). With the emergence of the Internet, online education spread globally and reached Saudi Arabia in the 1990s. Since then, it has become an integral part of higher education, with universities reporting massive enrollments in E-learning programs. The flexibility of online learning has made it particularly suitable for students balancing work, home responsibilities, or geographical limitations.

However, despite its growth, online education presents significant pedagogical and technical challenges. Many educators initially assumed that face-to-face methods could be directly transferred to online environments, overlooking the need for new strategies emphasizing digital communication, interactivity, and learner engagement. Recent research underscores that online teaching requires distinct competencies, including digital pedagogy, course design, and facilitation skills (Biber et al., 2023; Schmidt et al., 2013; Trevisan et al., 2023). These shifts highlight the need for continuous professional development and institutional support (Oanh et al., 2023).

Faculty competencies are central to effective online learning. Instructors must master both subject expertise and technological literacy while maintaining strong communication with learners. As emphasized by Yan et al. (2024), successful online educators integrate instructional

design principles with empathy and responsiveness to sustain student motivation and persistence. Faculty development programs thus play a vital role in building these capacities and ensuring teaching quality (Trevisan et al., 2023).

Globally, online education has experienced rapid institutional development, supported by expanding digital infrastructure and the growing acceptance of hybrid learning models. Universities worldwide—including those in the Middle East—have enhanced their online programs with new platforms, accreditation frameworks, and quality-assurance mechanisms (Basahel & Basahel, 2018; SEU, n.d.). Although early studies identified challenges such as faculty readiness and limited institutional support, many of these issues have been mitigated through structured training, digital transformation strategies, and policy innovation (Khoalenyane & Ajani, 2023). Online education today is evolving toward more flexible and student-centered ecosystems guided by evidence-based best practices (Biber et al., 2023; Oanh et al., 2023).

Faculty development continues to be a cornerstone of this transformation. Many higher-education systems have introduced national centers, continuous certification, and incentive structures to strengthen teaching competencies in digital contexts (NELC, n.d.). Such initiatives demonstrate a sustained international commitment to advancing the quality of online learning while aligning with broader goals of lifelong learning and human-capital development (Yan et al., 2024).

Despite these global advances, the literature still reveals a gap in understanding online teaching competencies from the students' perspective, which remains a critical yet underrepresented viewpoint (Khoalenyane & Ajani, 2023). While previous studies often examine

faculty self-perceptions or administrative frameworks, limited attention has been paid to how students evaluate instructional effectiveness in virtual settings. Considering that learner engagement, feedback, and instructor presence are strong predictors of satisfaction and success (Biber et al., 2023; Yan et al., 2024), incorporating student voices is essential for designing meaningful professional-development models.

The present study aims to identify the competencies necessary for effective online teaching from the perspective of SEU students and to examine whether these perceptions differ according to gender. Specifically, the study seeks to answer the following research questions:

What are the perceived competencies required for faculty members to effectively conduct online classes from the perspectives of SEU students?

Do SEU students' perceptions of faculty competencies in online classes differ based on gender?

Understanding these dynamics can help universities refine professional development programs, enhance teaching practices, and strengthen quality-assurance frameworks to ensure alignment with international standards in online education.

This topic is particularly timely as the higher-education landscape continues to evolve in the post-COVID-19 era. The pandemic accelerated digital transformation and demonstrated the long-term value of flexible, technology-enhanced learning. Many universities have since institutionalized blended learning and digital credentials, supported by regulatory bodies such as national e-learning centers that ensure accreditation and standardization (Ministry of Education, n.d.). As highlighted by Oanh et al. (2023) and Trevisan et al. (2023), such systemic integration marks a paradigm shift in teaching and learning worldwide.

Ultimately, identifying and nurturing the competencies valued most by students—such as timely feedback, interactive communication, and adaptive pedagogy—will enhance teaching effectiveness and promote sustainable innovation. These competencies not only strengthen faculty performance but also align with broader educational reforms emphasizing lifelong learning, digital readiness, and human-capability development envisioned in national and global education strategies.

Review of literature:

Competencies for Online Teaching: Definition, Importance and Frameworks

In the rapidly evolving landscape of higher education, online teaching has emerged not only as an alternative mode of delivery but as a mainstay of academic practice. For instructors to thrive in this environment, it is essential to understand what competencies are required, why possessing them matters, and how they are structured. In this section, I integrate the definition of competencies, their importance in online teaching, and the actual frameworks of online-teaching competencies into one cohesive discussion.

Defining Competency in the Online Teaching Context Competency in the context of online teaching refers to the amalgamation of knowledge, skills, and attitudes that instructors need to function effectively in digital learning environments. It is not simply proficiency with technology; rather, it encompasses pedagogical insight, digital literacy, facilitation skills, and the capacity to engage learners, design courses, assess learning outcomes, and manage technological and administrative demands. In higher-education research, competencies are

viewed as the "what one can do" in performance situations (e.g., designing interactive activities, giving timely feedback, maintaining presence) rather than solely "what one knows" (Trevisan et al., 2023). Moreover, recent work emphasises how online instructor roles shift—from the traditional 'sage on the stage' to the 'guide on the side'—reflecting a change in mindset as much as skill (Koh & Ling, 2024).

Why Possessing Online Teaching Competencies Matters The importance of possessing robust online-teaching competencies has been thrown into stark relief by the COVID-19 pandemic, which accelerated the shift to virtual delivery and exposed competency gaps among many instructors (Pham, Pham & Luong, 2024). Without strong competencies, instructors risk reduced student engagement, lower satisfaction, and sub-optimal learning outcomes. Conversely, instructors who skilfully orchestrate digital pedagogy, facilitate active interaction, provide timely feedback, and design inclusive online experiences contribute significantly to student success (Tawafak et al., 2023). For example, Dang (2024) demonstrated a strong positive correlation between lecturers' digital competence and student-reported learning value: when instructors were more competent, students perceived higher learning gains. Thus, online-teaching competencies are not optional add-ons—they are foundational to quality teaching in virtual or hybrid formats.

Frameworks and Dimensions of Online Teaching Competencies Empirical research over the last few years has identified multiple frameworks that categorize and structure the competencies required for online teaching. A systematic review by Chaharbashloo, Talebzadeh, Hosseini Largani & Amirian (2024) identified 106 distinct

competencies across seven overarching dimensions for higher-education instructors teaching online. These include:

- Technical/technological competence (e.g., mastery of LMS, video conferencing tools)
- Pedagogical/design competence (e.g., course design, aligning outcomes, creating engaging learning activities)
- Facilitation/communication competence (e.g., moderating discussions, prompt feedback, online presence)
- Social/interpersonal competence (e.g., building community, supporting diverse learners)
- Assessment/evaluation competence (e.g., designing valid online assessments, using analytics)
- Administrative/management competence (e.g., organizing modules, tracking participation)
- Reflective/professional development competence (e.g., ongoing improvement, adapting to emerging technologies)

Another study focusing on instructors in Turkey (Biber, 2022) found that instructors rated themselves high in pedagogy (M = 4.68) and technology (M = 4.19) but lower in course administration (M = 3.26). This underscores that the administrative dimension is often overlooked or under-developed in faculty preparation (Biber, 2022). Trevisan et al. (2023) examined factors shaping faculty competencies—internal factors like motivation and self-efficacy, and external supports like institutional training and technical infrastructure—and found that these factors

significantly influence competence development. A more practice-oriented study by Oanh (2023) developed an "Online Teaching Competence Framework" for university lecturers in Vietnam, designed to guide professional development by pooling local pedagogical demands with global research findings.

Integrating Definition, **Competencies Importance** and Putting it all together, we can see that competency in online teaching is a multi-faceted construct bridging what instructors must be able to do (e.g., design interactive modules, give timely feedback), be able to know (e.g., pedagogical models, digital tools), and be able to adapt (e.g., to new technologies, diverse student needs). The reason these competencies matter is clear: quality online teaching cannot be achieved simply by transplanting face-to-face practices into a virtual environment; it requires deliberate, informed, and context-specific competencies (Koh & Ling, 2024). The frameworks provide structure and clarity for what these competencies entail and how institutions can support faculty in developing them. As such, for any higher-education institution aiming to deliver effective online education, competency development must be central: instructors need to be trained not just in technology but in pedagogy, facilitation, assessment, student engagement, and reflective practice.

In summary, competencies for online teaching bring together definition ("what is competency"), importance ("why it matters"), and frameworks ("what the competencies are"). For instructors to succeed in online environments, institutions must focus on developing these competencies via training, support, and ongoing professional growth.

Methodology

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).

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 1 presents the populations (SEU, n.d.). 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 (1)

Population Characteristics of the Undergraduate Students

Enrolled at the SEU According to their College

Years	College	Saudi		non-Saudi		Total		Total
100.3		Male	Female	Male	Female	Male	Female	70.01
2019-	College of							
2020	Administrative	1579	1467	96	128	1675	1595	3270
	and Financial	1373						3270
	Sciences							
	College of							
	Computing and	1050	596	136	92	1186	688	1874
	Informatics							
	College of							
	Health	632	751	11	121	643	872	1515
	Sciences							
	College of							
	Science and	1153	472	30	52	1183	524	1707
	theoretical	1100	7,2		32	1105	02 4	1707
	studies							
	Common First Year	7005	5588	207	259	7212	5847	13059
	Total	11419	8874	480	652	11899	9526	21425

Sample

For this study, the participants were selected randomly using simple random sampling (probabilistic). 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.

Instrument

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. 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). In this study, the researcher examined the reliability of the survey items based on Cronbach's Alpha. The Cronbach Alpha value was α = 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). 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.

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 describing the demographic variables. There were questions regarding the participant's gender, age group, college, and the number of times he/she experienced online courses. 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.

General Characteristics of the Sample of Respondents

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 a representative sample of the population of this study as shown in table 2

Table (2)

General Characteristics of the Sample of Respondents

Variables	Frequency	Percentage
Gender		
Male	116	51.3
Female	110	48.7
Age group		
18–20	82	36.3
21–23	89	39.4
23+	55	24.3
College		
The College of Administrative and Financial	43	19.0
Sciences		
College of Health Sciences	49	21.7
College of Science and Theoretical Studies	45	19.9
College of Computing and Informatics	46	20.4
Not decided yet (Preparatory year)	43	19.0

How many online classes have you taken?

1	7	3.1
2	10	4.4
3	26	11.5
4	41	18.1
5	58	25.7
6	63	27.9
7+	21	9.3

Findings

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 (3)

Mean Ratings of Online Teaching Competencies

Competency	Item	Mean	Std. Deviation
Active Teaching	3.2 The instructor provides clear feedback on	6.19	.995
	assignments that enhances		
	the learning experience.		
Active Teaching	3.3 The instructor care that	6.17	1.042
	students are learning the		
	course content.		
Active Teaching	3.5 The instructor uses	6.14	1.021
	appropriate strategies to		
	manage the online		
	workload.		
Active Teaching	3.4 The instructor helps	6.11	1.098
	keep the course		
Active Teaching	participants on task. 3.1 The instructor provides	6.10	1.030
Active reaching	helpful feedback on	0.10	1.030
	assignments that enhances		
	learning.		
Technological	6.2 The instructor is	6.06	1.067
Competence	confident with the		
	technology used in the		
	course.		
Policy Enforcement	7.1 The instructor monitors	6.05	1.065
	students' adherence to		
<u> </u>	policies on plagiarism.		4.004
Multimedia Technology	4.2 The instructor uses	6.03	1.024
	multimedia technologies		
	that are appropriate for the		

Competency	Item	Mean	Std.
			Deviation
	learning activities.		
Policy Enforcement	7.2 The instructor monitors	6.00	1.058
	students' adherence to		
	policies and procedures of		
	academic integrity.		
Active Learning	1.10 The instructor shows	5.99	1.062
	respect to students in his		
	communications with them.		
Classroom Decorum	5.4 The instructor identifies	5.99	1.123
	areas of potential conflict		
	within the course.		
Technological	6.1 The instructor is	5.99	1.109
Competence	proficient with the		
	technologies used in the		
	online classroom.		
Administration/Leadership	2.4 The instructor	5.97	.986
	integrates the use of		
	technology that is		
	meaningful to students.		
Multimedia Technology	4.1 The instructor uses a	5.95	1.159
	variety of multimedia		
	technologies to achieve		
	course objectives.		
Classroom Decorum	5.3 The instructor can	5.94	1.092
	effectively manage the		
	course communications by		
	providing a good model of		
	expected behavior.		
Classroom Decorum	5.2 The instructor resolves	5.93	1.060
	conflicts when they arise in		
	teamwork assignments.		
Administration/Leadership	2.3 The instructor is	5.91	1.063
	proficient in the chosen		
	course management		
	system	ļ	
Administration/Leadership	2.1 The instructor makes	5.86	1.066
	grading visible for student		
	tracking purposes.		
Administration/Leadership	2.2 The instructor clearly	5.85	1.150
	explains expected student		
	behaviors.	<u> </u>	

Competency	Item	Mean	Std. Deviation
Active Learning	1.8 The instructor makes learning activities that help students construct solutions.	5.81	1.108
Classroom Decorum	5.1 The instructor helps students resolve conflicts that arise in collaborative teamwork.	5.79	1.213
Active Learning	1.5 The instructor provides opportunities for hands-on practice so that students can apply learning.	5.69	1.115
Active Learning	1.6 The instructor provides additional resources that encourage students to go deeper into the content of the course.	5.69	1.108
Active Learning	1.3 The instructor encourages students to share their knowledge with the learning community.	5.66	1.125
Active Learning	1.7 The instructor encourages student-generated content, as appropriate.	5.66	1.056
Active Learning	1.4 The instructor encourages students to participate in discussion forums.	5.62	1.192
Active Learning	1.9 The instructor uses peer assessment in his assessment of student work.	5.61	1.200
Active Learning	1.2 The instructor includes group/team assignments, where appropriate.	5.50	1.283
Active Learning	1.1 The instructor encourages students to inter act with each other by assigning team tasks and projects.	5.27	1.200

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 3). The second high-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 3, 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 4 presents the results of the independent samples t-test that was run to answer the question.

Table (4)

Mean Rating of Competencies by Gender

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

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 active the seven competencies; 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.

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). Recent studies have reaffirmed this finding, emphasizing that communication remains a critical competency in distance and digital teaching environments (Massouti, 2023; Sukardi, Wastawa, & Mantra, 2025; Dello Stritto & Aguiar, 2024). For instance, interpersonal

communication and teacher–student interaction are identified as strong predictors of effective online teaching and meaningful learning experiences (Zhang et al., 2024; Koh, 2024). It is encouraging to have an agreement on what constitutes necessary teaching competencies that can result in successful online teaching.

Further, a 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. Similarly, recent global analyses have also confirmed that strong communication competencies enhance online learning engagement and performance across various contexts (Massouti, 2023; Sukardi et al., 2025).

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; Tsai & Tsai, 2010). More recent findings confirm this gendered distinction, indicating that female learners tend to display higher satisfaction, motivation, and self-regulated learning behaviors in online environments (Li et al., 2021; Yu & Deng, 2022; Getenet, 2024). 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. Furthermore, newer meta-analyses indicate that although global differences are small, females in certain regions (e.g., Spain and the UK) maintain more positive attitudes toward online learning, while males report greater digital confidence (Yu & Deng, 2022; Shan et al., 2025).

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 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. Recent evidence suggests that while this digital divide still exists, the gap is gradually narrowing as online instruction becomes more accessible and inclusive (Getenet, 2024; Shan et al., 2025).

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. The findings indicated a difference between males and females in six out of the seven competencies. This study has opened the door for future research on online teaching field.

References

- Albert, L. J., & Johnson, C. S. (2011). Socioeconomic status and gender-based differences in students' perceptions of e-learning systems. Decision Sciences Journal of Innovative Education, 9(3), 421–436.
- Ashong, C. Y., & Commander, N. E. (2012). Ethnicity, gender, and perceptions of online learning in higher education. *Journal of Online Learning and Teaching*, 8(2), 98–110.*
- Basahel, S., & Basahel, A. (2018). Barriers to e-learning in higher education institutions in Saudi Arabia. *International Journal of Technology Enhanced Learning*, 10(2), 85–100.*
- Bergman, B. (2001). The history of distance education. *Open Learning Journal*, 16(2), 115–130.*
- Biber, T. (2022). Instructors' self-assessment of online teaching competencies in Turkish higher education. *International Journal of Educational Technology in Higher Education*, *19*(1), 113–127. https://doi.org/10.1186/s41239-022-00370-9
- Biber, T., Mafuraga, M., & Yilmaz, R. (2023). The instructors' competencies and experiences in online teaching. *Journal of Education and Practice*, *14*(8), 33–45.*
- Bigatel, P. M., Ragan, L. C., Kennan, S., May, J., & Redmond, B. F. (2012). The identification of competencies for online teaching success. *Journal of Asynchronous Learning Networks*, 16(1).*
- Borg, W. R., & Gall, M. D. (1989). *Educational research: An introduction* (5th ed.). Longman.
- Carut, J., & Caruth, G. (2013). Distance education: Historical perspectives. *The Turkish Online Journal of Distance Education*, 14(2), 27–34.*

- Chaharbashloo, A., Talebzadeh, N., Hosseini Largani, M., & Amirian, S. (2024). A systematic review of online teaching competency frameworks in higher education. *Education and Information Technologies*, 29(5), 8931–8954. https://doi.org/10.1007/s10639-024-12653-7
- Chang, C.-S., Liu, E. Z.-F., Sung, H.-Y., Lin, C.-H., Chen, N.-S., & Cheng, S.-S. (2014). Effects of online college student's Internet self-efficacy on learning motivation and performance. *Innovations in Education & Teaching International*, *51*(4), 366–377.*
- Creswell, J. W. (2012). Educational research: Planning, conducting, and evaluating quantitative and qualitative research (4th ed.). Pearson.*
- Creswell, J. W. (2013). Research design: Qualitative, quantitative, and mixed methods approaches (4th ed.). SAGE.*
- Cuadrado-García, M., Ruiz-Molina, M.-E., & Montoro-Pons, J. D. (2010). Are there gender differences in e-learning use and assessment? *Procedia—Social and Behavioral Sciences*, 2(2), 367–371.*
- Dang, Q. (2024). The impact of lecturers' digital competencies on students' perceived learning in online environments. *Education and Information Technologies*, 29(3), 2151–2170. https://doi.org/10.1007/s10639-023-12281-1
- Dello Stritto, C., & Aguiar, J. (2024). Skills needed for success in online teaching: A qualitative study of experienced instructors. *ResearchGate*.
- Field, A. (2009). *Discovering statistics using SPSS* (3rd ed.). Sage Publications.*
- Gay, L. R., Mills, G. E., & Airasian, P. (2008). *Educational research:* Competencies for analysis and applications. Pearson Merrill.*

- Getenet, S. (2024). Bridging the digital divide: Gender and learning mode in pre-service teachers' digital literacy. *Irish Educational Studies*, 43(2), 185–201.
 - https://doi.org/10.1080/03323315.2024.2359694
- González-Gómez, F., Guardiola, J., Rodriguez, Ó. M., & Alonso, M. Á. M. (2012). Gender differences in e-learning satisfaction. *Computers & Education*, 58(1), 283–290.*
- Khoalenyane, M., & Ajani, T. (2023). Exploring student perceptions of engagement in online learning within higher education institutions. *International Journal of Social Science Research and Review*, 6(8), 44–57.*
- Koh, J. (2024). Online teaching dexterity—Implications for post-pandemic higher education. *Teaching in Higher Education*, 29(1), 112–130. https://doi.org/10.1080/14703297.2023.2297022
- Koh, J. H. L., & Ling, C. (2024). From 'sage on the stage' to 'guide on the side': Reimagining online teaching competencies in post-pandemic higher education. *Teaching in Higher Education*, 29(5), 621–637. https://doi.org/10.1080/13562517.2023.2297055
- Li, C., & Lalani, F. (2020). The COVID-19 pandemic has changed education forever. *World Economic Forum*.
- Li, X., Zhao, J., & Huang, H. (2021). Gender differences in self-regulated online learning during the COVID-19 lockdown. Frontiers in Psychology, 12, 752131.

 https://doi.org/10.3389/fpsyg.2021.752131
- Liaw, S. S., Huang, H. M., & Chen, G. D. (2007). Surveying instructor and learner attitudes toward e-learning. *Computers & Education*, 49(4), 1066–1080. https://doi.org/10.1016/j.compedu.2006.01.001

- Massouti, A. (2023). Reviewing teachers' competency for distance learning: The role of online communication. *International Journal of Education and Literacy Studies*, 11(3), 45–53.*
- NELC. (n.d.). National eLearning Center initiatives for faculty development and digital transformation in Saudi higher education. Riyadh: National eLearning Center. https://nelc.gov.sa
- Oanh, P., Pham, T., & Doan, K. (2023). Development of an online teaching competence framework for university lecturers in Vietnam. *Cogent Education*, 10(1), 2264034.*
- O'Keefe, L., Rafferty, J., Gunder, A., & Vignare, K. (2020, May 18).

 Delivering high-quality instruction online in response to COVID19: Faculty playbook. *Every Learner Everywhere*.

 http://www.everylearnereverywhere.org/resources
- Pallant, J. (2007). SPSS survival manual: A step-by-step guide to data analysis using SPSS for Windows (3rd ed.). McGraw-Hill Education.*
- Pham, T., Pham, H., & Luong, M. (2024). Developing digital pedagogy competencies for higher education teachers after COVID-19. *Journal of Educational Technology Development and Exchange*, 17(2), 45–62. https://doi.org/10.18785/jetde.1702.04
- Rovai, A. P., & Baker, J. D. (2005). Gender differences in online learning: Sense of community, perceived learning and interpersonal interactions. *Quarterly Review of Distance Education*, 6(1), 31–44.*
- Schmidt, S., Tschida, C., & Hsu, P. (2013). Preparing teachers for online instruction. *TechTrends*, *57*(1), 18–25.*
- SEU (Saudi Electronic University). (n.d.). *Annual enrollment report*. SEU Publications.*
- Shan, X., Huang, L., & Xu, D. (2025). Gender disparities in the impact of online instruction. *IZA Discussion Paper No. 18011*.

- Sukardi, N. W., Wastawa, I. W., & Mantra, I. B. N. (2025). Interpersonal communication skills of teachers and students: Building a foundation for meaningful learning. *International Journal of Multidisciplinary Approach Research and Science*, *3*(2), 625–634. https://doi.org/10.59653/ijmars.v3i02.1643
- Trevisan, D., Guerriero, M., & Milanese, C. (2023). Factors shaping faculty online teaching competencies. *Educational Technology Research and Development*, 71(4), 1703–1725.*
- Tsai, M.-J., & Tsai, C.-C. (2010). Junior high school students' internet usage and self-efficacy: A re-examination of the gender gap. *Computers & Education*, *54*(4), 1182–1192.*
- Xu, D., & Jaggars, S. S. (2013). Adaptability to online learning: Differences across types of students and academic subject areas (CCRC Working Paper No. 54). Community College Research Center, Columbia University.
- Yan, S., Chen, H., & Li, X. (2024). Faculty and student perspectives on online learning in higher education. *Education Sciences*, 14(8), 801.*
- Yu, Z., & Deng, X. (2022). A meta-analysis of gender differences in elearners' self-efficacy, satisfaction, motivation, attitude, and performance across the world. *Frontiers in Psychology*, *13*, 897327. https://doi.org/10.3389/fpsyg.2022.897327
- Zhang, S., Wang, Y., & Luo, H. (2024). Interpersonal communication skills as anthropomorphic cue of AI instructors and its effect on learning experiences. *International Journal of Educational Technology in Higher Education*, 21(1). https://doi.org/10.1186/s41239-024-00465-2
- Zhao, C., & Mei, Z. (2016). A case study of American and Chinese college students' motivation differences in online learning environment. *Journal of Education and Learning*, 5(4), 104–112.*