

EVALUATION OF MICROSOFT TEAMS AS AN ONLINE LEARNING PLATFORM: INVESTIGATING USER EXPERIENCE (UX)

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Abstract

User Experience (UX) has a significant impact on business and management in a variety of ways, including customer satisfaction, enhancement of client retention, in addition to the preservation of the employees and organization's success. When developing information systems for educational institutions, usability must be prioritized. This is because it is the only method to ensure that educational and learning processes are fully exploited and that interactions between students and instructors are perfected. Despite the fact that usable system design is of the utmost importance, it has frequently been neglected in colleges and universities located in Arab Gulf nations, and there has been very little research conducted in this field. Furthermore, a significant number of usability studies have failed to appropriately include the feedback and user experience (UX) of students and instructors into the evaluation and development of these systems. The purpose of this study is to evaluate the User Experience (UX) for Microsoft Teams as a learning tool used by instructors and students at the Public Authority for Applied Education and Training (PAAET) in Kuwait. A quantitative methodology was utilized, and the participants included 675 instructors and students from PAAET. Attractiveness, efficiency, perspicuity, stimulation, dependability, and novelty are the six dimensions of UX that are investigated in this inquiry on user experience. The results of the survey showed that the respondents' user experiences were positive. The analysis revealed that statistically significant differences were found between males and females, with the males benefiting more, and significant differences were found between students and instructors, with the benefit of these variances going to the students. In comparison to the remaining four UX areas, Attractiveness and Efficiency obtained slightly higher scores. Despite this, the interpretation could vary based on the specific survey question or criterion used for measurement.

Keywords: User experience, Usability, Ms Teams, User Interface, Human Computer Interaction, Customer satisfaction.

1. Introduction

Within an organization, tools, software, and products with good UX contribute to increased efficiency and productivity (Soluntech, 2023; Yu & Kong, 2016). users can perform tasks more

effectively and with fewer errors when using well-designed systems. Similarly, a focus on user experience encourages a user-centric approach to product development. User feedback and insights drive innovation, ensuring that products meet the actual needs and preferences of the target audience. In addition, positive user experiences can attract new users through word-of-mouth recommendations and positive online reviews (Agarwal, 2019; Chen, Drennan, Andrews, & Hollebeek, 2018). Retaining existing users is equally important, and a good UX plays a vital role in preventing churn, while a poor user experience can lead to negative reviews, customer dissatisfaction, and even legal issues. Proactive management of UX helps mitigate these risks and ensures compliance with user expectations and industry standards (AIContentfy, 2023). In addition, Information systems and tools that prioritize user experience contribute to employee satisfaction in organizations (Panchev, 2020). Satisfied employees are generally more productive and engaged in their work (Chen, Drennan, Andrews, & Hollebeek, 2018).

To improve the application's effectiveness and efficiency and enhance the user's experience, it is essential to conduct a UX evaluation that measures the application's usability and user satisfaction. The feedback from this evaluation can guide further system enhancements (Saleh, Al-Badareen, & Enaizan, 2020). To ensure a positive user experience, UX design tasks should be incorporated throughout the development process and beyond. Continuous exploration of user needs can lead to ongoing improvements in usability and satisfaction. Inadequate interface design in a learning system can lead to user frustration and disengagement (Al-Sharhan S. , Al-Hunaiyyan, Alhajri, & Al-Huwail, 2020; Al-Hunaiyyan, Al-Sharhan, & Al-Hajri, 2020). Conversely, if a learning application aligns with users' expectations and needs, they are more likely to continue using it, leading to increased productivity and value (Al-Hunaiyyan, Alhajri, Alghannam, & Al-Shaher, 2021A). The usability and UX of a system have a significant impact on users' usage behavior and retention. The focus of user application development has shifted from a technology-centric to a user-centric approach. To enhance the user experience, developers conduct UX research. However, the user experience can differ depending on the application type and the platform/device it is being run on. To meet the users' requirements, developers and system analysts employ various techniques such as personas, empathy maps, wireframes, and prototypes (Sriarunrasmee & Anutariya, 2020; Alzayed & Al-Hunaiyyan, 2021). In order to enhance the effectiveness and efficiency of an application and improve the user experience, it is important to conduct a UX evaluation to measure usability and user satisfaction. The feedback obtained from this evaluation can then be used to make necessary improvements to the application (Saleh, Al-Badareen, & Enaizan, 2020).

In essence, user experience is intertwined with every stage of software development, from conceptualization to implementation and beyond (Agarwal, 2019). Prioritizing UX ensures that software not only meets functional requirements but also delights users and addresses their needs effectively (Nielsen, 1990; Panchev, 2020). This, in turn, leads to increased user satisfaction, adoption, and long-term success in the competitive software landscape (Agarwal, 2019; Bringula, 2016). MS Teams provides a range of features and resources that are essential for academic settings. However, the effectiveness of MS Teams in these tasks needs to be evaluated to enhance their usability. The main objective of this study is to address technology-related issues, enabling

students, instructors, and administrators to make optimal use of MS Teams while also improving the system's usability and user experience. This study aims to provide an in-depth understanding of the advantages, disadvantages, and procedures involved in the usage of electronic services offered by the PAAET, an academic institution in Kuwait, with a focus on MS Teams. As there is limited research on this topic in Kuwait, it is anticipated that this study is the first of its kind, thereby making a valuable contribution to the field. The findings of this study will be invaluable to the system's development team at PAAET as they strive to improve the system in the future. By configuring the system based on the study results, future versions of MS Teams will meet the needs of stakeholders, including system developers, administrators, faculty members, and parents.

This article is organized into sections. Section 2 outline the research objectives, while Section 3 reviews the relevant literature, section 4 explains the methodology. The results and a discussion thereof are presented in section 5, and section 6 draws conclusions and explores future directions.

2. Research Objectives

The objective of this study is to examine the user experience (UX) of students and instructors who interact with MS Teams at PAAET. As there is a lack of research on this topic, particularly in the context of the Kuwaiti educational system, this study is of great significance. Its primary goal is to provide system designers with useful insights for future iterations, not only to enhance the system's functionality and attractiveness but also to improve user interactions and their experiences with the system and its associated features (Almas & Machumu, 2021). The specific objectives are:

1. Investigate students' and instructors' perceptions and user experience (UX) towards MS Teams at PAAET as well as usability issues.
2. Comprehend statistical differences among user demographics.
3. Provide insights that are helpful to improve and configure current system.

3. Literature Review

Due to technological improvements, online learning has become increasingly popular in both conventional and non-conventional educational environments. Developers have been able to construct learning management systems that facilitate collaborative student development and meaningful learning experiences due to these developments development (Al-Sharhan S. , Al-Hunaiyyan, Alhajri, & Al-Huwail, 2020; Al-Sharhan & Al-Hunaiyyan, 2012). In developing countries like Kuwait, businesses need to use good human resource management (HRM) techniques to deal with crises like the COVID-19 (Alainati, Al-Hunaiyyan, & Alkhatib, 2023B; Al-Hunaiyyan, Alhajri, Al-Sharhan, & Al-Ghannam, 2021C; Al-Hunaiyyan, Al-Hajri, & Bimba, 2021E). Because of the pandemic, schools at all levels have had to switch from traditional to online learning. It is especially hard for developing countries like Kuwait to make the switch to e-learning (Alainati, Al-Hammad, & Alhajri, 2023A; Alainati, 2021). In virtual learning settings, educators are in charge of assisting and directing students' educational journey, offering criticism and

assistance, and assessing students' progress (Alhajri, Al-Hunaiyyan, & Almousa, 2017; Al-Hunaiyyan, Al-Sharhan, Alhajri, & Bimba, An Integrated Implementation Framework for an Efficient Transformation to Online Education, 2021B). In order to enhance student-instructor interactions and ensure optimal utilization of educational and learning materials, it is vital that usability be a top priority during the construction of information systems (Alainati, Alshawi, & Al-Karaghoul, 2011). Usability analysis is regrettably neglected frequently throughout the development process (Al-Hunaiyyan, 2000).

UX and usability are frequently conflated. According to Berezhnoi (2019), usability primarily pertains to the operational aspects of a system, whereas user experience (UX) encompasses the emotional and mental states of users as they interact with the system. In the same way, according to Morville (2014), UX is preoccupied with comprehending the requirements, interests, strengths, and weaknesses of users. She emphasizes that UX research enhances the engagement of users with the system and elevates their perspectives (Morville, 2014). Usability is a term used to denote the extent to which users accept a given system (Nielsen, 1990). User experience (UX) has attracted increasing attention among scholars and industry practitioners in recent times as it has been found to directly correlate with the extent to which a given product is successful (Hinderks, Schrepp, Mayo, Escalona, & Thomaschewski, 2019). According to Norman and Nielsen, UX represents a fundamental aspect of the design and delivery of products and services (Norman & Nielsen, 2020). As such, arguably, educational establishments that leverage UX design activities in their system development activities are able to access a range of advantages that serve to enhance user satisfaction. According to (Alenjeng, Lindblom, Cort, & Ziemke, 2017), a successful UX cannot be achieved by chance and must be evaluated systematically. Several frameworks and models have been proposed for designing and evaluating UX (Tasoudis & Perry, 2018). Hinderks et al, 2019 created a User Experience Questionnaire (UEQ) that assesses UX. The questionnaire comprises six scales that measure six aspects of usability, thereby providing a comprehensive representation of UX. These dimensions are as follows: *attractiveness*, "the system should appear appealing, enjoyable, friendly, and pleasurable."; *efficiency*, "the user should be able to complete tasks with the product quickly, efficiently, and pragmatically."; *perspicuity*, "it should be simple to grasp, straightforward, and simple to learn."; *dependability*, "the engagement should be predictable, secure, and satisfy my expectations."; *stimulation*, "it should be fun, interesting, and inspiring to use."; *novelty*, "the design should be inventive, innovative, and creative." (Hinderks, Schrepp, & Thomaschewski, 2019; Al-Sharhan, Al-Hunaiyyan, & Gueaieb, 2006).

An informative study aimed to identify the utilization of LMS among instructors based in HE institutions in Malaysia (Azlim, Husain, Hussin, & Zulisman, 2014). Using a quantitative methodology, the researchers distributed a questionnaire to 93 instructors that aimed to examine their perceptions of the Groups, Chat, Discussions, Exercises, Announcements, and Documents features and tools in the LMS. While instructors had a positive view of the benefits and advantages of LMS, the research uncovered that only a small percentage of instructors actually utilized the LMS (Al-Hunaiyyan, Al-Sharhan, & Al-Hajri, 2020). Another study by (Alghamdi & Bayaga,

2016) investigated 222 professors from six Saudi Arabian universities to understand their attitudes towards the tools and features of their learning management system. The survey discovered that older instructors tended to use LMS features more regularly than their younger counterparts, and that the majority of courses did not actively employ LMS tools and applications. The utilization of LMSs in higher education is a topic that has garnered much attention in recent years. However, despite the numerous advantages that these systems offer, there are still certain obstacles that prevent their widespread adoption (Al-Sharhan, Al-Hunaiyyan, & Al-Sharrah, 2010). Usage anxiety is one such obstacle that has been identified in previous research. Additionally, studies have shown that users are most satisfied with basic LMS functions, while more advanced features related to collaboration and engagement are less satisfying (Dahlstrom, Brooks, & Bichsel, 2014). Nonetheless, the potential for flexible cooperation and discussion between students and instructors through LMS functions and tools has been noted (Azlim, Husain, Hussin, & Zulisman, 2014; Al-Doub, Goodwin, & Al-Hunaiyyan, 2008).

MS Teams Recently, Pal and Vanijja (2020) evaluated Microsoft Teams using the Technology Acceptance Model (TAM) and the System Usability Scale (SUS), which are both based on Human-Computer Interaction (HCI) theory (Al-Hunaiyyan, Alhajri, Al-Sharhan, & Bimba, 2021D). The large-scale survey of university students found that the Perceived Ease of Use (PEOU) construct of TAM was more similar to SUS than other methods. This indicates that the PEOU construct can be used to evaluate the usability of MS Teams effectively. The outcomes revealed that there was no correlation between consumption and usability aspect (Pal & Vanijja, 2020). Academic institutions must assess how usable their systems are from the standpoint of human-computer interaction. Developers ought to concentrate on producing more functional and improved systems by considering the social and cultural background of their intended users (Alhajri, Al-Sharhan, Al-Hunaiyyan, & Alothman, 2011; Al-Hunaiyyan & Al-Sharhan, 2009); their respective differences (Al-Huwail, Al-Sharhan, & Al-Hunaiyyan, 2007); and gender differences (Al-hunaiyyan, Al-Sharhan, & Alhajri, 2017).

Anisha Nath (2020) conducted a UX analysis for Ms-Teams to understand how user friendly it is compared with other tools such as SLACK, CISCO WEBEX, and ZOOM. The author found that the majority of the competitors, according to the author, offer comparable characteristics and applications. Every company, however, had a unique interface. Slack is easier to use and navigate than Microsoft Teams, although Teams has a more structured UX overall. At first, users find Teams difficult to use, but it becomes simple after you become used to the platform. In addition, conducted a SWAT analysis identifying the strength, weaknesses, opportunities, and threats of MS-Teams (Nath, 2020). Furthermore, according to (Raju, 2023) improving the end user experience of Microsoft Teams is crucial for boosting output and encouraging smooth cooperation. To get the most out of the platform, he looked at a number of methods to improve the end user experience with Microsoft Teams. He provided a list of sixteen UX design suggestions to improve teamwork and efficiency.

4. Research Methodology

The research used a quantitative approach to gather students and instructors' opinions and experience of the use of Ms-teams. The methodology includes system selection, research instruments, and data analysis.

4.1. System Selection

For this study, Microsoft Teams was chosen as the standard online learning platform for a number of reasons. First, all faculty, staff, and students at PAAET colleges had access to an enterprise edition of Microsoft Teams via the "Office 365 Education" plan, which allowed for instantaneous IT help. Second, Moodle-based solutions can't match or be surpassed by Microsoft Teams' feature-rich teaching and learning environment. Since every college has a different learning management system in place, Microsoft Teams offers a complete solution to meet the demands of the quick pandemic reaction.

One of the advantages of Microsoft Teams as a learning management system is its ability to facilitate both synchronous and asynchronous learning. Live online classes can be held at scheduled times, similar to traditional classrooms, while instructors can also record and post videos for student benefit (Alainati, Al-Hunaiyyan, Alhajri, Alahmad, & Alkhatib, Perceptions of Online Learning Among Instructors: How to Maximize Instructors' Competencies in Virtual and Blended Learning., 2023C). Additionally, file sharing and testing capabilities are available, including both objective and subjective types of assessments. Social networking elements are also included through private and public group chat options, as well as multi-party video conferencing. The availability of mobile and web versions further enhances the accessibility of the platform. As such, Microsoft Teams provides a strong foundation for online-only learning and supports the continued delivery of quality education.

4.2. Questionnaire Design

A quantitative approach, comprising the creation and distribution of a questionnaire, was employed to collect the perspectives of instructors and students and investigate the potential and difficulties associated with MS Teams at PAAET. The purpose of the questionnaire was to collect information from a sample of PAAET instructors and students. To ensure the validity of the questionnaire, it was modified from the one that developed by (Hinderks, Schrepp, & Thomaschewski, 2019) for evaluating the user experience of interactive systems. The questionnaire's scales provide a comprehensive evaluation of the user experience, including traditional usability factors and user experience features, which measures usability spanning six different domains: *Attractiveness*; *Efficiency*; *Perspicuity*; *Dependability*; *Stimulation*; and *Novelty*.

The questionnaire comprises of seven sections. The first section gathers demographic data. Sections two to seven evaluate the usability of MS Teams and explore the six UX domains outlined by Hinderks et al. (2019). A five-point Likert scale is used in the questionnaire: 1 denotes Strongly Disagree, 2 disagree, 3 neutral, 4 agree, and 5 strongly agree. A pilot study was carried out to

assess the survey's **adequacy** and feasibility as well as to confirm the preliminary findings. Following the surveying of thirty students, the internal consistency of the questionnaire was confirmed using the correlations between each theme and the overall score. The researchers used SPSS to calculate the correlation coefficients. Strong internal consistency and construction integrity were shown by the high ($p < 0.01$) correlations between the various dimensions and the overall score, which varied from 0.799 to 0.912. In a similar vein, the reliability of the questionnaire was determined by using SPSS to calculate each dimension's Cronbach's alpha (Table 1). The questionnaire's dimensions demonstrated a good level of reliability, as indicated by coefficients ranging from 0.79 to 0.91. With a total Cronbach's alpha of 0.98, the questionnaire was deemed to be both dependable and broadly applicable.

Dimension	No. of Items	Cronbach's Alpha
Attractiveness	3	0.84
Efficiency	3	0.82
Perspicuity	5	0.79
Dependability	4	0.88
Stimulation	3	0.91
Novelty	4	0.91
Total Score		0.98

Table 1. Cronbach's alpha of each UX dimension

4.3. Data Analysis

A number of statistical methods were applied, including frequency, percentage, mean, independent-sample t-tests, and standard deviation (SD). A significance level of 0.05 will be used.

4.4. Research Sample

This study included 675 participants, 514 student and 161 instructor, 296 male and 379 female. Table 2 presents the demographic data of the study sample.

Characteristic	Categories	Frequency (N)	Percentage (%)
Gender	Male	296	43.9
	Female	379	56.1
Status	Student	514	76.1
	Instructor	161	23.9

Table 2. Study sample's demographics (n = 675)

5. Results and Discussions

This section explores the findings of the investigation into the perspectives of both students and instructors regarding the MS-Teams. There is a total of 22 item that are arranged in the following six **dimensions: attractiveness, efficiency, perspicuity, dependability, stimulation, and novelty**. These tables are numbered from 3 to 8. The tables that are shown in the subsequent sub-sections display the percentages, means, standard deviations (SD) for each item for both students and instructors.

5.1. Attractiveness

Attractiveness relates to whether the system appears appealing and enjoyable to the user. The three items used to study the attractiveness dimension are listed in Table 3. Item A1 had a high mean value, indicating that MS Teams screen was exciting (mean = 4.16 for students and 3.63 for instructors). Item A2, "MS Teams is interesting," came in second (mean = 4.21 for students and 3.69 for instructors), while question A3, "MS Teams interface is attractive," came in last (mean = 3.89 for students and 3.60 for instructors). Visual design is one of the non-functional factors of interface design that adds appeal to any given system (Ngadiman, Sulaiman, & Wan Kadir, 2015; Phillips, 2015). The examination of student and instructor answers, summarized in Table 3, demonstrated that the attraction of MS Teams is acknowledged. The mean value for all items is more than 3.6 on a scale of 5, it generally indicates that the average rating is above the midpoint of the scale. In a 5-point scale, where 5 is the highest and 1 is the lowest, a mean value above 3.5 suggests that most responses or ratings are on the positive side. This could be interpreted as a positive outcome, indicating that attractiveness is generally well-received among users. Average mean value of attractiveness is 4.15.

No.	Item		Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree		Mean	SD
			N	%	N	%	N	%	N	%	N	%		
A1	The screen of MS Team is exciting	Student	8	1.6	10	1.9	69	13.4	231	44.9	196	38.1	4.16	0.842
		Instructor	1	0.6	19	11.8	37	23.0	85	52.8	19	11.8	3.63	0.864
A2	MS Team is an interesting system	Student	2	0.4	16	3.1	61	11.9	228	44.4	207	40.3	4.21	0.799
		Instructor	3	1.9	15	9.3	39	24.2	76	47.2	28	17.4	3.69	0.930
A3	MS Team interface is attractive	Student	11	2.1	49	9.5	94	18.3	192	37.4	168	32.7	3.89	1.036
		Instructor	4	2.5	18	11.2	37	23.0	81	50.3	21	13.0	3.60	0.937
Average Mean Value of Attractiveness												4.15		

Table 3. Students' perceptions of the MS-Teams' "Attractiveness"

Aesthetics is a collection of ideas that relate to the beauty of a design. Consistency, color, association, pattern, scale, contour, and visual weight are all aspects of visual design. It engages consumers by assisting them in performing the proper system functionality smoothly (Alhajri & Al-Hunaiyyan, 2016; Yu & Kong, 2016). System designers should employ aesthetics to improve the usability, innovation, and attractiveness of their designs (Fagerholm, et al., 2018; Al-Hunaiyyan, 2000; Agarwal, 2019). Visual design is an important success aspect; nonetheless, its significance has shifted over time. Kumar (2015) studies the dynamics of the importance and attractiveness dimensions of software product features, as well as their impact on user happiness. The study gave valuable insight into the trade-offs between the attractiveness and importance

dimensions, as well as information on which aspects should be prioritized in evolving software solutions (Kumar, 2015).

5.2. Efficiency

Three questions were used to examine the efficiency of MS Teams (Table 4). Efficiency refers to the capacity of users to execute their tasks expeditiously and without excessive exertion. As for students and instructors' responses, item E3 "I think MS Teams is practical and effective" was ranked highest with (mean = 4.16 for students and 3.63 for instructors). In addition, item E3 "I believe that MS Teams meets my requirements" also showed that MS Teams is effective showing mean value for students 4.29 and for 3.96 for instructors. Similarly, item E1 "All system commands are executed quickly" (mean = 4.27 for students and 4.07 for instructors) indicating a positive response. This suggests that most responses or ratings are on the positive side. This could be interpreted as that attractiveness is generally well-received among users. Efficiency is a metric that assesses the speed at which users are able to complete tasks; hence, efficiency has a positive effect on system quality (Kaur, Grover, & Dixit, 2019; Agarwal, 2019). A user experience that prioritizes efficiency contributes to increased user satisfaction, productivity, and overall effectiveness in interacting with a product or system. As such, designers and developers should strive to create interfaces that not only look appealing but also prioritize the efficient achievement of user goals (Saleh, Al-Badareen, & Enaizan, 2020; Berezhnoi, 2019). Average mean value of efficiency is 4.15.

No.	Item		Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree		Mean	SD
			N	%	N	%	N	%	N	%	N	%		
E1	All system commands in MS-Team are executed quickly.	Student	3	0.6	17	3.3	55	10.7	200	38.9	239	46.5	4.27	0.826
		Instructor	2	1.2	7	4.3	26	16.1	69	42.9	57	35.4	4.07	0.895
E2	I believe that MS Teams meets my requirements.	Student	7	1.4	8	1.6	54	10.5	203	39.5	242	47.1	4.29	0.822
		Instructor	2	1.2	11	6.8	23	14.3	81	50.3	44	27.3	3.96	0.897
E3	I think MS Teams is practical and effective.	Student	4	0.8	9	1.8	42	8.2	213	41.4	246	47.9	4.34	0.766
		Instructor	2	1.2	16	9.9	21	13.0	68	42.2	54	33.5	3.97	0.990
Average Mean Value of Efficiency												4.15		

Table 4. Students' perceptions of the MS-Teams' "Efficiency"

5.3. Perspicuity

In User Experience, perspicuity, which relates to the clarity or transparency of communication, is vital. User experience and perspicuity are crucial components in the development of interfaces and

interactions that are intuitive and simple to navigate. The greatest mean score achieved by students was 4.32 for item 5, which said that "MS-Team is an easy-to-use tool" whilst instructors obtained 3.96. Conversely, instructors obtained the highest mean score of 4.15 for item 2, which stated "An explanation of how to use MS-Teams is important." It is evident that the mean values for all items for both students and instructors exceed 3.5 on a scale of 5. This indicates that the Perspicuity of the MS Teams was recognized, suggesting that the system is generally favorable received by users. Average mean value of perspicuity is 3.97.

No.	Item		Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree		Mean	SD
			N	%	N	%	N	%	N	%	N	%		
E1	I got enough training on how to use MS- Teams	Student	16	3.1	24	4.7	78	15.2	202	39.3	194	37.7	4.04	0.998
		Instructor	4	2.5	22	13.7	28	17.4	82	50.9	25	15.5	3.63	0.985
E2	It is necessary to get explanation of how to use MS- Teams	Student	2	0.4	25	4.9	79	15.4	201	39.1	207	40.3	4.14	0.876
		Instructor	2	1.2	6	3.7	20	12.4	71	44.1	62	38.5	4.15	0.868
E3	MS- Team can be used without the help of others.	Student	9	1.8	34	6.6	96	18.7	184	35.8	191	37.2	4.00	0.991
		Instructor	4	2.5	27	16.8	39	24.2	60	37.3	31	19.3	3.54	1.061
E4	MS- Team commands and links are clear and understandable.	Student	8	1.6	12	2.3	75	14.6	209	40.7	210	40.9	4.17	0.872
		Instructor	2	1.2	15	9.3	37	23.0	79	49.1	28	17.4	3.72	0.903
E5	MS- Team is an easy-to-use program.	Student	4	0.8	10	1.9	49	9.5	204	39.7	247	48.1	4.32	0.788
		Instructor	12	7.5	26	16.1	79	49.1	44	27.3	161	100.0	3.96	0.858
Average Mean Value of Perspicuity												3.97		

Table 5. Students' perceptions of the MS-Teams' "Perspicuity"

Learnability of a system is determined by the degree of simplicity with which users acquire proficiency in operating it (Batchu, 2019). Learnability is one of the five quality characteristics of usability, according to Joyce (2019); the others are efficiency, memorability, contentment, and error (Joyce, 2019). As stated by Batchu (2019), the duration of training required to utilize a system is negatively correlated with its usability and intuitiveness. Prioritizing design enhances usability and facilitates comprehension by enabling users to rapidly grasp the interface without the need for formal training (Batchu, 2019; Al-Hunaiyyan, Al-Sharhan, Alainati, & Al-Duaij, 2023). Furthermore, interface design consistency facilitates the organization and use of the system's

menus and actions, whereas inconsistencies can lead to systems being perplexing (Alhajri, Al-Sharhan, Al-Hunaiyyan, & Alothman, 2011). Perspicuity in UX design is about creating interfaces that communicate information clearly, allowing users to easily understand, navigate, and interact with digital products (Harrison, Flood, & Duce, 2013). By prioritizing clarity and transparency, designers contribute to a positive user experience that fosters comprehension and usability.

5.4. Dependability

Dependability pertains to the extent to which the user perceives a sense of agency in the system and the predictability of the system's interactions. Four items utilized to assess dependability are presented in Table 6: security, expectation, dependability, and accuracy. The students provided good responses to all items, with mean values scores exceeding 4. However, instructors assigned typical scores between 3.5 and 4, which fell short of the standards set by the students. In general, users' responses suggest that users consider Ms. Teams to be dependable. Average mean value of dependability is 3.90.

No.	Item		Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree		Mean	SD
			N	%	N	%	N	%	N	%	N	%		
D1	MS- Teams supports the learning process	Student	3	0.6	7	1.4	54	10.5	199	38.7	251	48.8	4.34	0.766
		Instructor	6	3.7	23	14.3	32	19.9	72	44.7	28	17.4	3.58	1.053
D2	MS-Teams is reliable	Student	11	2.1	18	3.5	74	14.4	180	35.0	231	44.9	4.17	0.948
		Instructor	4	2.5	22	13.7	29	18.0	72	44.7	34	21.1	3.68	1.033
D3	MS- Team meets my expectations	Student	7	1.4	18	3.5	75	14.6	201	39.1	213	41.4	4.16	0.894
		Instructor	6	3.7	15	9.3	33	20.5	75	46.6	32	19.9	3.70	1.013
D4	MS- Team is secured.	Student	12	2.3	27	5.3	84	16.3	196	38.1	195	37.9	4.04	0.981
		Instructor	6	3.7	18	11.2	48	29.8	58	36.0	31	19.3	3.56	1.042
Average Mean Value of Dependability												3.9		

Table 6. Students' perceptions of the MS-Teams' "Dependability"

Dependability is a non-functional characteristic of a system that is predominantly determined by the level of trust that users place in the system. Another notion that further enhances dependability is the capacity to prevent system breakdowns that occur with an unacceptable degree of frequency and severity (Alkaraawi, 2017). Numerous characteristics include dependability, including the system's security, availability, durability, precision, and dependability (Kumar, 2015). Software designers want to place significant importance on this aspect, as users frequently commend and endorse dependable software (AIContentfy, 2023).

5.5. Stimulation

Stimulation queries whether the system is exciting, motivating, and fun to use. The four items in Table 7 show that MS Teams was moderately stimulating. The scenario in stimulation is similar to the previous section with dependability in which the students' responses to all items positively which they scored a mean value more than 4. However, instructors scored mean values between 3.5 and 4 which is lower than students. Overall responses indicates that Ms Teams is stimulating by users. In the early phases of the design process, persuasive components should be carefully evaluated in relation to the behavior the application aims to influence. This will ensure a successful design that both benefits the user and accomplishes the business objective. The following are some of the motivating factors for system developers that (Zichermann, 2020; Almonawer, et al., 2023) outlined: "gathering, connecting, achievement, feedback, reciprocity, and happy productivity". These drivers can be applied to any application. An emerging paradigm in the field of user experience (UX) is the growing significance attributed to personalization. Average mean value of stimulation is 3.87.

No.	Item		Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree		Mean	SD
			N	%	N	%	N	%	N	%	N	%		
S1	MS- Teams is stimulating	Student	6	1.2	24	4.7	79	15.4	211	41.1	194	37.7	4.10	0.903
		Instructor	3	1.9	20	12.4	51	31.7	56	34.8	31	19.3	3.57	0.998
S2	MS-Teams motivated me to perform better in my courses	Student	12	2.3	15	2.9	75	14.6	189	36.8	223	43.4	4.16	0.940
		Instructor	4	2.5	24	14.9	36	22.4	67	41.6	30	18.6	3.59	1.034
S3	MS- Team is an interesting system	Student	4	0.8	20	3.9	63	12.3	215	41.8	212	41.2	4.19	0.852
		Instructor	5	3.1	12	7.5	51	31.7	62	38.5	31	19.3	3.63	0.979
Average Mean Value of Stimulation												3.87		

Table 7. Students' perceptions of the MS-Teams' "Stimulation"

5.6. Novelty

The degree to which a system is inventive and progressive is demonstrated by its novelty. Table 8 presents four items that pertain to the investigation of novelty. The students gave good reactions to every item, with a mean score exceeding 4. However, instructors assigned typical scores between 3.5 and 4, which fell short of the standards set by the students. In general, the responses suggest that MS Teams is just moderately novel. The user may be intrigued by novelty, which (Qualls, 2015) defines as "the characteristic of being novel, unique, or unusual." Although software uniqueness can aid in distinguishing one system or application from another, in order to do this, the system must also provide practical value to consumers. According to (AIContentfy, 2023), creation, innovation, and invention are further facets of novelty that contribute to UX. Positive

novelty can enhance user engagement, delight, and overall satisfaction (Alenljung, Lindblom, Cort, & Ziemke, 2017). However, it's essential to consider usability, user needs, and the potential for resistance to change to ensure that novelty contributes positively to the overall user experience. Creating a great user experience (UX) requires innovation, detail, and a thorough grasp of user wants and preferences. Businesses can use various best practices to build a UX that boosts client happiness and growth. A great practice is simplicity and ease of use (Mehta, 2023). Average mean value of stimulation is 3.94.

No.	Item		Strongly Disagree		Disagree		Neutral		Agree		Strongly Agree		Mean	SD
			N	%	N	%	N	%	N	%	N	%		
D1	Ms Teams is an innovative system.	Student	9	1.8	15	2.9	73	14.2	223	43.4	194	37.7	4.12	0.883
		Instructor	3	1.9	20	12.4	42	26.1	65	40.4	31	19.3	3.63	0.993
D2	Ms Teams is a creative system.	Student	6	1.2	15	2.9	70	13.6	219	42.6	204	39.7	4.17	0.853
		Instructor	3	1.9	16	9.9	56	34.8	56	34.8	30	18.6	3.58	0.965
D3	Ms Teams is technically advanced	Student	8	1.6	9	1.8	47	9.1	210	40.9	240	46.7	4.29	0.827
		Instructor	2	1.2	13	8.1	25	15.5	84	52.2	37	23.0	3.88	0.900
D4	Ms Teams is an innovative system	Student	6	1.2	17	3.3	63	12.3	225	43.8	203	39.5	4.17	0.853
		Instructor	2	1.2	14	8.7	47	29.2	64	39.8	34	21.1	3.71	0.940
Average Mean Value of Novelty												3.94		

Table 8. Students' perceptions of the MS-Teams' "Novelty"

5.7. Comparison of UX Dimensions

According to the findings of the investigation, both instructors and students held a favorable opinion of MS Teams. A comparison of the six dimensions of UX based on the averages of their respective mean values is depicted in Figure 1. Means: 4.15 for Attractiveness, 4.15 for Efficiency, 3.97 for Perspicuity, 3.90 for Dependability, 3.94 for Novelty, and 3.87 for Stimulation. The average averages for the six dimensions varied between 3.87 and 4.15, with an average mean of 4.00. When the mean value for user satisfaction of systems, product performance, or any other metric is denoted as 4.0 on a 5-point scale, it generally signifies that participants are largely in agreement or enthusiastic. However, depending on the particular survey question or measuring parameters, the interpretation may differ.

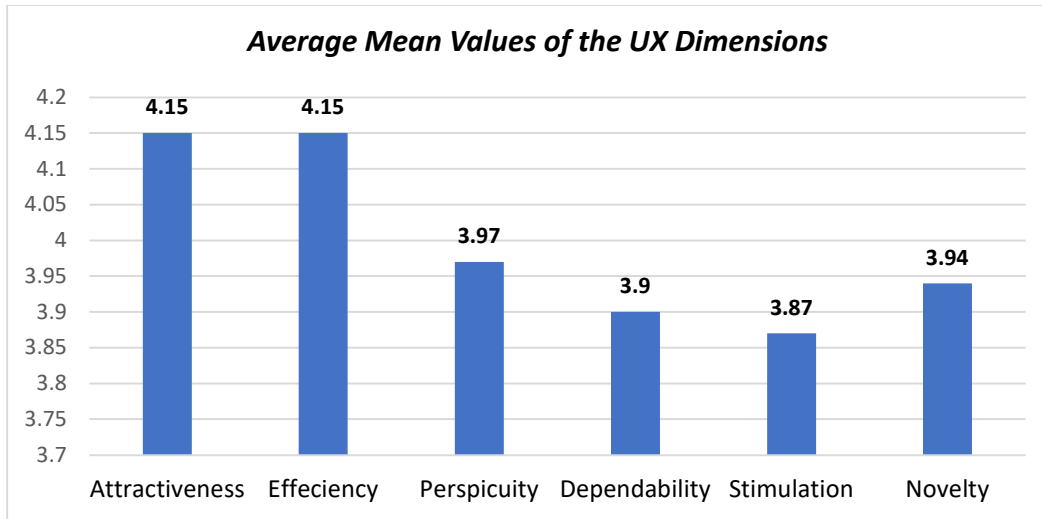


Figure 1. Average Mean Values of the UX Dimensions

5.8. Differences According to Gender (Male Vs Female)

The Third objective of this study is to identify statistical differences between user demographics. This section examines *gender* disparities in instructors' and students' user experience (UX) of the MS teams utilized at PAAET. The data shown in Table (9) indicate, through the use of a t-test, that there are statistically significant differences between male and female respondents in favor of *males* across all six dimensions of their user experience (degree of significance: (t-test) $p < 0.05$).

Dimension	Gender	F.	Mean	Std. Deviation	t	df	Sig. (2-tailed)
Attractiveness	Male	296	4.06	0.836	2.208	673	0.03
	Female	379	3.92	0.766			
Efficiency	Male	296	4.34	0.735	3.440	673	0.00
	Female	379	4.15	0.712			
Perspicuity	Male	296	4.12	0.699	2.304	673	0.02
	Female	379	4.00	0.663			
Dependability	Male	296	4.20	0.837	4.253	673	0.00
	Female	379	3.93	0.793			
Stimulation	Male	296	4.10	0.926	2.165	673	0.03
	Female	379	3.95	0.829			
Novelty	Male	296	4.17	0.830	2.848	673	0.00
	Female	379	4.00	0.763			

Table 9. Significant Differences among users (Male Vs Female)

5.9. Differences According to Position (Student Vs Instructor)

The Third objective of this study is to identify statistical differences between user demographics. This section examines differences in *instructors and students'* user experience (UX) of the MS teams utilized at PAAET. The data shown in Table (10) indicates, using a t-test, that there are statistically significant differences between students and instructors in favor of *Students* across all six dimensions of their user experience (degree of significance: (t-test) $p < 0.05$).

Dimension		F.	Mean	Std. Deviation	t	df	Sig. (2-tailed)
Attractiveness	Student	514	4.09	0.763	6.338	673	0.00
	Instructor	161	3.64	0.823			
Efficiency	Student	514	4.30	0.679	4.700	673	0.00
	Instructor	161	4.00	0.828			
Perspicuity	Student	514	4.13	0.658	5.529	673	0.00
	Instructor	161	3.80	0.694			
Dependability	Student	514	4.18	0.747	7.690	673	0.00
	Instructor	161	3.63	0.913			
Stimulation	Student	514	4.15	0.812	7.209	673	0.00
	Instructor	161	3.60	0.940			
Novelty	Student	514	4.19	0.740	7.053	673	0.00
	Instructor	161	3.70	0.858			

Table 10. Significant Differences among users (Students Vs Instructors)

6. Conclusions and Future Directions

By assessing students' perspectives, the current study evaluated the UX of MS Teams, a critical platform for the operation of PAAET. Under the auspices of six dimensions, the merits and demerits of the design, usability, and user experience of the system presently in operation were assessed. A quantitative approach was employed to conduct a survey of 675 PAAET instructors and students. Based on the poll results, it can be concluded that the participants held a favorable perception of MS Teams. In relation to UX dimensions, the results indicated that Attractiveness and Efficiency received somewhat higher ratings compared to the remaining four UX domains (perspicuity, stimulation, dependability, and novelty). The averages for the six dimensions varied between 3.87 and 4.15, with an average mean of 4.00. When the mean value for user satisfaction of systems, product performance, or any other metric is denoted as 4.0 on a 5-point scale, it generally signifies that participants are largely in agreement or enthusiastic. However, depending on the particular survey question or measuring parameters, the interpretation may differ.

The findings of this study highlight the importance of ongoing assessment of MS Teams and a comprehensive research agenda in order to create inventive systems equipped with intelligent capabilities to facilitate unique endeavors. These characteristics increase the engagement and productivity of both students and instructors, hence promoting their academic achievement. The

ongoing significance of mobile devices cannot be disregarded. In order to ensure that systems and products remain accessible and functional across a variety of platforms, organizations must prioritize mobile-first design and responsive interfaces, given that mobile devices currently account for the bulk of internet traffic. The future of user experience (UX) is multifaceted and perpetually changing, hence presenting enterprises with a range of obstacles and prospects. By investing in the design and functioning of their goods and anticipating trends, businesses can position themselves for success in the digital era and guarantee the highest quality user experience possible. This study's findings attract usability specialists and those investigating user behavior and interactive system use. MS Teams and other systems can frustrate users with inadequate user interfaces, mobile experiences, and service availability. However, a good UX engages people and boosts productivity. This study sheds light on PAAET's MS Teams and emphasizes the need for educational institutions to conduct frequent UX evaluations for all systems to generate context-specific recommendations.

Future work should be devoted to the development and execution of intelligent learning management systems. Intelligent services that employ knowledge-based, adaptive feedback generate a customized experience that caters to the unique requirements of each user. Furthermore, cutting-edge tools offer students and instructors insights, monitor trends in student data, do what-if scenario analyses, and showcase academic progress. Furthermore, it is crucial that the mobile experience with MS Teams be dependable, given the nascent importance of this interface and the adverse experiences that a few students encountered while utilizing PAAET's systems on their mobile devices. Additionally, an overhaul of the system incorporating novel and inventive methodologies, coupled with the implementation of a more aesthetically pleasing design infused with futuristic tools and stimulating elements that enhance the user experience, would not only improve the appearance, and feel of MS Teams but also its functionality and effectiveness.

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