


The State of User Experience in Teaching and Learning Multimedia Courses in Jordanian Universities

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Abstract

This research aims to analyse the current status of User Experience (UX) in the teaching and learning process at Jordanian universities. It uses a qualitative approach, using semi-structured interviews with educators. The research is divided into four main stages. First, a general analysis of all public university websites is conducted. Second, modules related to UX are identified through their descriptions. Third, the educators responsible for teaching these modules are identified and interviewed to gain insights. Finally, the paper integrates findings from the literature review, web analysis, and interviews to provide a clear picture of the current status of UX in Jordanian universities

Keywords: User experience, education, Jordanian universities, multimedia course.

واقع تجربة المستخدم في تدريس وتعلم مقررات الوسائط المتعددة في الجامعات الأردنية

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الملخص

تهدف هذه الدراسة إلى تحليل واقع تجربة المستخدم (UX) تهدف في عملية التعليم والتعلم ضمن مقررات الوسائط المتعددة في الجامعات الأردنية. تتبع الدراسة نهجاً نوعياً باستخدام المقابلات شبه المنظمة مع أعضاء هيئة التدريس. تتضمن الدراسة أربع مراحل رئيسية: تحليل مواقع الجامعات الرسمية، تحديد الوحدات الدراسية المرتبطة بتجربة المستخدم، إجراء مقابلات مع 12 من أصل 21 معلماً متخصصاً، وجمع البيانات من الأدبيات والمقابلات لتحليل الوضع الحالي. كشفت النتائج عن تأثير تصميم تجربة المستخدم على جودة التعليم والتعلم. أبرزت الدراسة أهمية دمج مبادئ تجربة المستخدم في المنصات التعليمية لخلق بيئات تعليمية شاملة، أكدت النتائج على ضرورة تضمين تجربة المستخدم في تصميم المناهج، وتحسين الوصول إلى المنصات الرقمية، وزيادة رضا الطلاب وأعضاء هيئة التدريس. كما ناقشت الدراسة التحديات التي تواجه التعلم الإلكتروني في الأردن؛ مثل صعوبات الاستخدام والقضايا التقنية. قدمت توصيات لتحسين تجربة المستخدم من خلال الأبحاث الدورية وقنوات التغذية الراجعة. أشارت الدراسة أيضاً إلى التحديات البحثية مثل حجم العينة والنهج المنهجي، مما يفتح المجال لدراسات مستقبلية تعمق الفهم حول دور تجربة المستخدم في التعليم الرقمي. الكلمات المفتاحية: التعليم، تصميم تجربة المستخدم، الوسائط المتعددة، الجامعات الأردنية.

Introduction

The increasing rate of change in higher education has led to an exponential increase in the value of User Experience (UX) in the teaching and learning process. Similar to their international counterparts, Jordanian universities must contend with the swift emergence of new technologies and shifting teaching approaches (Reem Alkhader, 2016). In order to demonstrate how heavily user-centric design is being included into Jordanian universities' curricula, this study aims to thoroughly examine the state of UX in these establishments.

The beginning of the digital age has ushered in a new phase of educational reform that requires institutions to abandon their antiquated methods and embrace cutting-edge approaches. An idea that is typically associated with digital interfaces has expanded even farther outside the realm of education. It includes the seamless collaboration of students, teachers, and the educational process as a whole. This investigation into the state of UX in Jordanian higher education is therefore pertinent and essential as academic institutions

throughout the globe work to establish a setting that is comprehensive and enriching (Usher, Alex. 2019).

The act of exploring Jordanian institutions' official websites, which serve as virtual portals to the academic community, is known as preliminary research. Furthermore, these online spaces not only showcase the technology infrastructure, but also the institution's commitment to creating an interface that is easy for teachers and students to use. Examining these websites reveals a great deal about the ideals associated with UX, providing some preliminary insights into the institutional ethos of UX.

Research Problem

The main research question that this study seeks to answer is the limited knowledge on how the principles of UX are being applied in the teaching and learning activities at Jordanian universities. This also involves evaluating the outcomes of these implementations and the prospects and issues related to improving UX in education.

Research Methodology

This research uses a qualitative approach to collect data, conducting face-to-face semi-structured interviews, analyzing websites, and reviewing curriculum documents. The research process involves:

1. University Website Analysis: It should also analyze the view of usability and accessibility, information architecture, and user-interface design of university websites.
2. Curriculum Analysis: Scouring through module descriptions in order to determine in which areas of the curriculum UX is being covered.
3. Semi-Structured Interviews: Conducting interviews with educators who are responsible for delivering modules that are related to UX, to understand their approaches, difficulties and the effects they notice after they have taught their classes.

Research Objectives

1. To assess the current integration of UX principles into the teaching and learning processes at Jordanian universities.
2. To determine the approach that teachers employ in the teaching of UX in multimedia courses.
3. To measure the level of engagement of the students on the UX modules and their feedback.
4. To examine the amount of support for UX initiatives in education from the administrative aspect.
5. To assess the situation and examine the existing problems and potential for enhancing UX in the curriculum.

Research Hypotheses

H1: Universities that apply UX principles effectively in their curricula will record higher engagement and satisfaction levels among students.

H2: Educators applying effective and simplified methods in teaching UX will find improved learner achievement over those adopting theoretical models.

H3: Administrative support is positively related to the implementation of UX principles in education.

H4: Students who are trained with well-designed UX modules will record better academic performance and enhanced learning experience.

Search Terms Clarification

1. User Experience (UX): The degree to which a user of a specific product, like a website or an application, has a favourable experience during the session.
2. Education: Formal education defined as the process of obtaining systematic instruction as it is delivered in a school, university and the like.
3. Jordanian Universities: Higher education Institutions that are present in the country of Jordan.

4. Multimedia Course: Teaching programs that incorporate text, audio, graphics, animations and videos for the purpose of imparting information.

Literature review

User Experience (UX) as a concept has grown to be more important in educating settings due to factors such as technology, students' demographics and styles of learning and teaching. When UX is incorporated into educational environments, the goals are to improve students' adherence to course materials and positive perceptions toward education resulting in higher academic performance. Recent works stress the role of further investigation of the topic and demonstrate the necessity of UX practitioners' community growth and making UX practices more accessible for various types of educational institutions to be more adaptable. For example, current concerns of organizations reflect plans for the more effective collection of information about users' needs and more frequent modifications in the development of educational tools to address the patients' needs intensively (Maze, Openfield, 2023). Furthermore, existing research and practices indicate that incorporation of UX in learning has been effective in enhancing the delivery and quality of learning through promoting and enhancing both the thinkers' and the interactors' roles among the learners (Edutopia, 2023). Therefore, we have to emphasize that educational institutions need to pay proper attention to UX principles in order to improve the educational processes and learning environment.

The literature, concerning UX in higher education, highlights the need of designing interactive and effective learning contexts. The notion that good UX comes along with the satisfaction and engagement of students, who, in turn, reveal better academic results, was suggested by Miya, (Thamsanqa & Govender, Irene2022), This connection is based on the assumption that when students perceive the system in which they learn as user-friendly and promptly responsive to their needs, their involvement with the content of the course, their participation in exercising educational activities, and thereby, their overall academic performance are improved.

UX Design Institute (2023) claim that UX-oriented educational systems can serve all kinds of learners, thus, education becomes more inclusive. They argue that when students are exposed to interfaces and educational resources that are developed with their experiences in mind, the barriers to learning are minimised, thus, enabling more fair access to information and knowledge.

The use of UX in education is not just limited to the interface. It is based on looking at the whole educational process, the emotional, cognitive, and social factors that affect learning. Through the integration of UX principles, educators can create courses which not only communicate information comprehensively but also provide a caring learning atmosphere. This style is consistent with the pedagogical move to student-centred learning, where the emphasis of learning is the learners' experience and outcomes (Edutopia., 2023)

The Digital Imperative in Higher Education:

The university Website serves as the primary entry point for students and other constituencies in the digital era. Gibbons et al. (2017) state that the university website is a main sign of the university's commitment to the user-centred design. In addition to the provision of easy access to information, a user-friendly website also represents the institution's dedication to ensuring that their users have an effective and accessible platform. Consequently, detailed analysis of university's websites is important for understanding the university culture and strategy in terms of UX (Chen, 2018).

University Websites as Digital Portals:

In the modern higher education environment, the university web-site is an important digital point of entry – the virtual entrance for students, faculty as well as other stakeholders. According to (Abdulla Danah, 2017), a university's official website is not just an information warehouse but the embodiment of the institution's vision for user-

oriented design and communicative efficacy. This digital interface is the users' first encounter, which forms the image of the institution in their minds and stimulates their online participation.

The user-friendly website is a mirror of an organisation's desire for people to get easily available and reliable information. (Chen,2018) notes that UX design determines usability and functionality of university websites. This is not only the design but the site's intuitive map, correct information architecture and adaptive design all together create a favourable user experience.

Digital footprint study of the Jordanian universities may be conducted by website analysis that involves not only the beauty of the design, but also the user interface design, accessibility, and user responsiveness to various needs. The purpose of this analysis is to show the digital tactics used by universities and their relationship with UX principles. Justification of the study will be provided by academic literature, to which a conceptual model will link theoretical ideas and practical observations, thus, revealing the role of UX in producing educational spaces, which not only are attractive, but also functional and inclusive.

What is more, a university website that has been perfectly designed does not only look good and work properly as stakeholders often think; it affects recruitment activities, institutional branding, and stakeholder engagement overall. The work by Sevier et al. (2019) illustrates how university websites affect the views and actions of prospective students. Nowadays, the online exposure of an institution is crucial in forming its identity and therefore, a good digital experience can help to gain and keep students.

However, the challenges exist in delivering a seamless digital experience. University websites can be ineffective because of technical imperfections, outdated information, and lack of responsive design (Al-Quraan, Hussam., 2012). For solving those issues, one should always remember UX principles and consistently develop.

When presenting research on the UX state within Jordan, university websites will demonstrate a critical perspective on the adoption of user-oriented design by institutions. Utilising an analytical approach to literature that emphasises the part played by digital portals, this research aims to unveil the complexities of UX in digital interfaces of Jordanian universities as a part of the general conversation on technology and education. (Oxford Business Group., 2018)

Curriculum Design and UX Integration:

In the dynamic environment of higher education, UX in curriculum design is one of the main factors for students to meet challenges caused by digitalization. Dane Wesolko (2016) claims that education in UX exceeds the stage of interface design and implies the systematic way of problem solving and perspective which can surpass disciplinary frames. Such change in the approach makes UX not only a tram of skills – but a part of critical thinking that is useful in different areas of knowledge.

Applying the points of UX principles into pedagogy is not only about the technicalities in the learning process but also about mentality shifting that supports the users' centric design thinking (Mahafzah, Azmi). Karsenti et al. (2020), demonstrate the enabling effect of including UX in curriculum development, arguing that such an approach will enhance critical thinking, problem solving and adaptation in complex technological environments among students. By incorporating UX principles into some of the academic modules, universities can equip students with an approach to dealing with technology in a thoughtful and inventive way (Hembree, Ryan. 2006).

The essential integration of UX into curriculum development is part of a larger movement towards learner-centred learning. The attention to providing an inspiring and useful learning experience is an expression of the UX design principles. The general satisfaction, motivation, and learning performance of students will increase if they are actively engaged in meaningful educational materials and activities (Zhou et al., 2017).

Nonetheless, challenges exist in integrating UX into curriculums. Faculty training, resource allocation, and paradigm shift in teaching methodologies are the three fundamental elements of successful UX integration (Lentz, Trevor & Zeppieri, 2014). The brands of academia are impediments to the change that needs thorough analysis of the institutional policies and practices so as to embrace a curriculum based on UX principles.

Adopting UX principles in curriculum design is a disruption in higher education, although it leans towards the current student-centred learning trend and prepares students for the digital world. Regarding the state of UX in Jordanian universities, it is to approach certain strategies that these institutions employ and difficulties they encounter when incorporating UX into their academic subjects, adding to global debates about education and user-centred design.

Global Perspectives vs. Local Realities:

The interaction of UX infusion into higher education is an important discursive intersection that connects global perspectives with local manifestation. Studies such as those of Miya, Thamsanqa & Govender, Irene, 2022) and (Alhammad& Manal & Moreno& more, 2020) emphasise the universal nature of embedding UX into educational systems for improved student engagement, satisfaction, and academic performance. These studies legitimise agile and user-friendly models concerning the digital interfaces and educational practices in universities. However, introduction of similar global UX standards in localised settings, such as higher education of Jordan, brings a number of challenges and opportunities that are determined by the cultural, resource and diversity factors.

Chen (2018) offers a critique of the way Jordanian universities address these challenges. The work of Chen in evaluating the websites and curricula of universities exemplifies the process of how the adaptation of international UX best practices is implemented within the framework of local educational ecosystems. This study indicates the fact that the contextual sensitivity is required while implementing the UX principles which are somewhat universal best practices for they provide a general idea which should also be adjusted to the local specifics of the country and its people.

The application of UX in higher education is not only limited to the virtual interfaces but also includes teaching methods and curriculum design. One such example is (Alhammad and Moreno,2020) experience of applying Lean UX to Scrum in an advanced-level software engineering course as an experience report, this merging of agile development and UX in academic settings will create a learning environment that promotes critical thinking, problem-solving and adaptability in students. This study points out how user experience (UX) as an innovative force can change education methods that are used to educate students how to cope with challenges of technology-driven environments.

Gupta et al. (2022) contribute to this discussion by providing some design recommendations related to UX for domain-specific modelling languages, which take into account wider implications of employing UX principles in educational tool development. Their work also emphasises the user-centred design principles aimed at satisfying the needs of a particular user and thus, should also be universally informed and locally adaptable in educational contexts.

The Call for Contextualized Research

The application of User Experience (UX) principles in higher education should be approached as an intricate process, globally linking methods and locally through micro levels, in different contexts, including Jordanian universities. Distinctiveness of the environment in a higher education institution is rather based on a combination of cultural, institutional and technological landscapes which highlights the significance of contextualised UX research in those institutions. The synthesis of major findings is what

this literature focuses on, and that implies that context-based UX research in higher education in Jordan is the bridge between worldwide UX norms and the local practices.

Miya, Thamsanqa & Govender, (Irene,2022) highlighted the international significance of UX in improving student engagement and in learners' outcomes in higher education. Their research offers a general and comprehensive overview of ways to effectively utilise UX principles in educational platforms targeted at improving student satisfaction and success. On the other hand, in their study, Law et al. raise concerns of the principles being universal and not taking into account a local educational environment and needs.

In this regard, (Dziuban et al, 2015) discusses the interactive approach of technology adoption in higher education as well as the requirement for the customised UX design for the certain institutional and cultural contexts. The authors also claim that technology can create considerable value in learning activities only when its UX design is adapted to cultural and institutional specifics of its users. The study of Dziuban et al. highlights the necessity of creating productive and beneficial UX practices in response to specific opportunities and obstacles of each educational context, thus general UX approach in higher education is inappropriate.

Moreover, (Malkawi, Khetam, 2014) provides an illustration of the use of UX principles in Jordanian universities that reflects problems related to alignment of global UX standards with local context (MHESR, 2017). In her research, Chen identifies a number of factors that influence the level of effectiveness of UX design in Jordanian higher education including cultural specificities, resources constraints, and diversity of students' needs. The study also highlights the need for localised UX strategies based on context-sensitive research that both reaches the international level and remains usable locally, making technology-enhanced learning environments accessible, inclusive, and responsive to the needs of all students.

All these studies emphasise the importance of context-oriented approach of UX research in higher education. They stress the need for an approach that is not merely based on the best practices of the world, but which also has an in-depth connection in the local culture, institutional and technological terrains. This means that Jordanian universities need to undertake a strong and highly specific UX research, which would address the specific challenges and seize the opportunities available within the Jordanian higher education system. So, students are ensured that the application of UX principles in their educational environment will result in student learning experiences that are fun, non-challenging and optimal for everybody.

Methodology

A research approach that involved the use of interviews was used to conduct the study to establish how user experience was in the processes of teaching and learning in universities in Jordan. Data in this research was collected through interviews with educators, a content analysis of two university websites, and a content analysis of curriculum module descriptions. The research question guiding this inquiry was: And hence, the research question formulated as follows: "How are UX principles implemented in the educational practices of Jordanian universities?"

Research Design and Strategy

Qualitative methodology was used since the goals and objectives of the study were to investigate participants, UX in education contexts, and their experiences. The research process involved:

1. University Website Analysis: An analysis of the official websites of the Jordanian universities in order to know their readiness on the Web and adherence to the main principles of UX. The analyzed UX aspects consisted of website user experience, web accessibility, structure, and graphical user interface.
2. Curriculum Analysis: Assessing all the module descriptions to determine when and how UX is taught and incorporated in the curriculum. This entailed assessing the

subjects taught and how they are taught as well as the relationship between the course modules and usability principles.

3. Semi-Structured Interviews: Interacting with educators who teach or oversee any aspect of UX at school level to get to know more about their strategies, their struggle and the role that is played by the application of all these aspects to academic achievement among the learners. Questions regarding integration of UX in curriculum were asked about: general modifications of UX in educational curriculum, personal attitudes of teachers toward UX, students' engagement with UX modules, administrative provisions, and detectable effects on educational results.

Population and Sampling Process

Ethical Considerations

To guarantee the ethical rigour in our study on User Experience (UX) in the Jordanian educational domain, we strictly follow through the ethical protocols. This starts with getting an informed consent from participants which means they are fully aware and also agree with their involvement. Anonymity and confidentiality hold supreme, ensuring all data is anonymized to grant privacy. The rights of the participants to withdraw at any time without subsequent repercussions is assured; thus, the voluntariness of participation is maintained. Approval from the relevant institutional review boards for ethical issues is sought, paying attention to ethical standards and cultural sensitivities. Transparency in methodology and findings guarantees honesty and accountability in research processes. Taken altogether, these measures sustain ethical research, ensuring respect, integrity, and responsibility of researchers towards participants and the main ethical pronouncements of research.

Result

The following part is dedicated to the results of the investigation on involvement of User Experience (UX) in the process of teaching and learning in Jordanian universities. The analysis is structured along the central theme that was determined during the methodology phase. At the same time, the narrative is tied up in such a discursive and easily understandable way that directly reflects our research aims. Topics involve using UX principles for humanising the UX education process, the strategies used in it as well as the administrative support for the UX. In this regard, we also incorporate perspectives from a surveyed participant identified as Lin (a pseudonym) to pinpoint the areas in which we found the key aspects of our findings to be.

Theme 1: Conception of a UX strategy in the formation of course curriculum.

The educators interviewed also submitted guidelines showing implementation of different levels of UX practices into curriculum design. Participant A (Ade1) referred to a proactive approach with the main emphasis on user-focused design methodologies within projects being the basis for this. At the same time, Participant B (Teacher1) testified clearly about an absence of structured UX content, and the ad hoc nature of the integration of UX content was the fact for him/her. On the one hand, Lin had gone through a professional UX experience in the past, and on the other he entered into academia, so that he brought a background of unique thinking views. Lin, rather, pointed to an urgent need to revamp the UX principles and make them more adaptable to the modern environment by doing so. As part of the learning process, students should face real-world UX challenges directly so that they can get grounded in the practice and be better prepared for the job market.

Theme 2: Teaching of Educators' Approach to UX

Responses illustrate extremely diverse methods of coaching UX. Participant C (Teacher2) goes for a personal approach, offering to work hand-in-hand with students as they explore working with local organisations and solve the actual UX challenges. This is somewhat different from Participant 1 (HOD1) who tends to be handicapped by their limited exposure to the industry and therefore favours theory-based teaching. Lin also

outlined a unique approach, which he implied, would be exploring community-based projects in the curriculum. As a result, students would be capable of dealing with the UX problems within the non-profit organisations and the research would be well-founded by the real life experience of solving the socially significant problems.

Theme 3: Student Interaction with UX Modules

Feedback on student interaction with UX modules was mixed. Some educators, like Participant E (Teacher3), observed high engagement levels, with students showing keen interest in UX research methods. Others, like Participant F (Dean2), noted challenges in motivating students to appreciate the importance of iterative design processes. Lin's strategy of involving students in community projects was cited as particularly effective in enhancing engagement, as it provided students with a sense of purpose and real-world impact.

Theme 4: Administrative Perspective on UX

The amount of administrative help required to incorporate UX into educational systems was extremely uneven across organisations. Participant HOD2 (G) said that users were getting much support with access to UX labs and software by providing funding for these activities. Nevertheless, Participant H (Dean3) communicated only marginal support, wherein, the problem was about the budget constraints and the administrative aspect being not aware of what UX function meant. During his talk, Lin focused his advocacy work within the formal constituency to create support for UX projects via linking the value of these projects to student effectiveness and success.

The results of our findings show that there is a high awareness in the educational sector towards the value of UX, however, the depth of their attention, methodologies they use and the amount of support is simply dependent on the administration of each Jordanian university. Lin's case shows that there is a place for innovation in how we teach and use the UX knowledge to the fullest with the potential of achieving positive outcomes, therefore, ways of providing better or at least effective UX education. This research also brings out the requirement for realignment of the teaching and learning system with the Experience design perspectives.

To respect confidentiality and ethics, an insignia code was assigned to every volunteer according to their system of roles and sequential numbering system (example: Dean1, Teacher1). Hereby, the confidentiality can be maintained but at the same time meaningful referencing to specific insights provided during the research is ensured.

Discussion of findings

Website Analysis Usability:

1. There are universities, the website of which has convenient and easily recognizable navigation and clear structure, improving client interest and contentment.
2. Some other web sites contain many dead links or links that lead to outdated documents and information thus the sites are not as friendly to use as the union site.

Accessibility:

Sometimes the website adheres to the requirements of the accessibility standards, and sometimes the website lacks basic assistive tools such as text-to-speech and contrast modification.

Information Architecture:

1. Information architecture provides users with a clear structure of where the information is and this makes it easy for them because it saves memory space.
2. Lack of sustainable information architecture structure in some websites causes the users to lose interest.

User Interface Design:

1. Good designs, which possess harmonised branding features and the good organization of layout, cause various benefits in overall user experience.

2. Many websites have very old designs, and this determinant affects the way users perceive websites

Curriculum Analysis

Integration of UX Principles:

1. Some courses include extensive UX modules that encompass the user-centred design approach and project work.
2. Similar courses do not have a clearly defined content in UX and are based on one's knowledge, rather than actual experience.

Course Content and Teaching Methodologies:

1. Calculative user-oriented courses that offer radical pragmatic solutions offer the best preparation for learners.
2. It is possible that theoretical-oriented courses do not provide students with the appropriate tools for UX practice.

Interviews with Educators

Approaches to Teaching UX:

1. Variation is achieved by including hands-on projects, community projects, and theoretical content.
2. Teachers implementing concrete assignments describe increased learner participation and improved academic performance.

Administrative Support:

1. Support ranges from having UX labs and resources for software and more to having no budget, little awareness among administrators of the need for UX.
2. Lack of Administrative Support is a third factor that influences the application and success of UX principles in education since its support can also be inconsistent.

Challenges and Opportunities:

1. Some of the issues attributed include scarcity of resources, insufficient internal support, and resistance to new approaches to teaching.
2. Areas of improvement involve the general improvement of teaching and learning experiences through better incorporation of the UX, more support from the administration, and feedback mechanisms

Research limitation

The exploration of User Experience (UX) in Jordanian educational settings is broad; but inferring the value of the findings of this exploration requires recognizing its limitations. This study's limitation not only define the scope of the paper, but also, depict areas for future study thus, leading to a direction for future research.

Sample Size and Diversity: The principal disadvantage of this study comes up from the size of its sample and the multiplication that exists in its participants. The inclusion of a diverse set of views from students and educators within Jordanian institutions was attempted; however, the small sample size and the uneven distribution in certain geographical and institutional contexts may restrict the generalizability of our findings. The nature of experiences and perceptions of UX in education, as captured in this research, is idyllic of a specific segment of the Jordanian educational community. It is therefore limited in inferring clear relationships between types of the institutions and the levels of education and the perceptions within the educational community.

Methodological Constraints: Primarily, this study was guided by semi-structured interviews to collect perspectives about the UX of educational platforms. This qualitative approach enabled rich, detailed discussions and allowed for more complex understandings of individual experiences; however, it precludes from quantifying or identifying comprehensive, generalizable patterns with statistical significance. One should take into consideration the subjective nature of qualitative data together with the risks of interviewer and respondent biases; these may affect the objectivity and reliability of the findings.

Technological Landscape: The blazing speed of technological innovation and dynamic nature of digital learning platforms poses another major limitation. The UX features, design practices, and technologies evaluated here reflect a specific period of time. With the continuing growth and development of educational technology, certain of the findings linked to specific platforms, tools or UI design elements may become obsolete, thus making the study's conclusions obsolete for future UX design and implementation of EAU.

Cultural and Contextual Specificity: Being concentrated on Jordanian educational settings, the study introduces the limitation related to cultural and contextual specificity. The UX can be strongly affected by cultural norms, educational traditions as well as societal expectations. Such focus, however, is a source of much valuable information about the Jordanian context; yet, its generalizability to other cultural or instructional environments might be limited. Talents and limitations that are unique to Jordan and which set Jordan apart from other countries may equally apply to other regions.

Scope of UX Evaluation: In this study the assessment of UX is limited to certain features of digital learning platforms such as usability, accessibility, and course integration. This focus, albeit necessary for a thorough analysis, also leaves out other equally significant aspects of UX which could have substantial influence on educational achievements, like emotional design, personalization, role of social interaction in digital learning environments, etc. The leaving out of the aspects above could cause the study not to be comprehensive in understanding UX, s role in education.

Future Technological and Pedagogical Developments: Finally, the study's results are confined by the existing stage of technological and pedagogical development. Due to evolution of educational practices and technologies, new UI/UX challenges and opportunities emerge that were not concerned or predicted at the moment of the research. The speed of innovation in the areas of artificial intelligence, virtual reality, and adaptive learning systems may introduce fresh dynamics into the education interactive environment, thus necessitating continuous research, and the adaptation of new UX strategies which should follow those changes.

Last but not least, this study provides important insights to the UX of e-learning platforms in Jordanian educational contexts but its shortcomings open the floor for further research. Future research should focus on overcoming the limitations noted by implementing larger and more diverse samples, utilising mixed methods techniques for a more comprehensive analysis and staying current and dynamic in the research topic to keep up with technological and pedagogical advancements. Recognition of these limitations ensures the credibility of the present study and also helps in development of a more sophisticated and dynamic picture of UX in education

Conclusion

The research on UX focusing on Jordanian field revealed that the multi faces of UX design mainly impacted the quality of teaching and learning processes. The work of this research, by an in-depth examination of semi-structured interviews with educators and students has uncovered the paramount significance of incorporating UX principles in educational platforms to build learning environments that are not only accessible and involving but also favourable learning environments.

A central result of this research is that UX becomes a significant factor in the digital education space, determining user satisfaction and engagement that in turn determine learning. The study has found several thematic patterns which include the need of incorporating the UX in curriculum design, accessibility in digital platforms as well as the effect of UX on the overall satisfaction levels for both the students and the lecturers. These topics underline the interrelation of UX with pedagogical aims, showing how the good UX design facilitates and augments the teaching goals.

In addition, the study has brought forth the challenges of using e-learning in Jordan like the usability issues that students in the university face and other technological issues which could affect the learning of students. The study gives specific recommendations to various actors in the educational technology sector in the light of these problems. These are the demands for user engagement in UX design through user feedback channels and periodic research aimed at adapting UX strategies to progressing technological and pedagogical environments.

This research also critically engages with the wider discussion about educational technology and UX design, positioning its findings in relation to existing literature but also pointing out educational technology and user experience design unique to Jordan's contexts. It discloses both synergies as well as dissimilarities between the results of the study and the existing theories, giving a sophisticated perspective on the role of UX in education. They study the ability of user-centred design to respond to the specific need and preference of learners and teachers, arguing for UX as an essential part of successful digital education.

Additionally, the shortcomings of the study, which encompass the size of the sample and the methodological approach, should serve as a reminder of the challenges involved in UX research in educational settings. Moreover, these constraints circumscribe the area of competence of the study, and they also offer a seedbed for future research, being the beginning of other studies to be carried out.

Sources & References

1. Abdulla, D. (2017). *Design Otherwise: Towards a Locally-Centric Design Education in Jordan* (Doctoral dissertation). University of London.
2. Abu-El-Haija, A., & Alkhader, R. (2016). Overview of the Higher Education System in Jordan. National Erasmus: European Union. Accessed June 2018. https://eacea.ec.europa.eu/sites/eacea-site/files/countryfiches_jordan_2017.pdf
3. Alhammad, M., & Moreno, A. (2020). Challenges of gamification in software process improvement. *Journal of Software: Evolution and Process*, 32. <https://doi.org/10.1002/smr.2231>
4. Al-Quraan, H. (2012). *Comparative Study of Graphic Design Education in Jordanian Universities: Towards Best Practice* (Doctoral dissertation). University of Wollongong.
5. Chen, K.-S., Monrouxe, L., Lu, Y.-H., Jenq, C.-C., Chang, Y.-J., Chang, Y.-C., & Chai, P.Y.-C. (2018). Academic outcomes of flipped classroom learning: A meta-analysis. *Medical Education*, 52(9), 910-924. <https://doi.org/10.1111/medu.13616>
6. Dziuban, C., Moskal, P., Thompson, J., Kramer, L., DeCantis, G., & Hermsdorfer, A. (2015). Student Satisfaction with Online Learning: Is it a Psychological Contract? *Journal of Asynchronous Learning Network*, 19. <https://doi.org/10.24059/olj.v19i2.496>
7. Edutopia. (2023). *Student-Centered Learning and UX Design*. Retrieved from <https://www.edutopia.org/article/student-centered-learning-ux-design>
8. Gibbons, R.D., Kupfer, D.J., Frank, E., & Brent, D.A. (2021). Reply. *Journal of the American Academy of Child & Adolescent Psychiatry*, 60(5), 542-543. <https://doi.org/10.1016/j.jaac.2020.12.032>
9. Gupta, E., et al. (2022). Design and analysis of brake system for FSAE race car. *Engineering Research Express*, 4(2), 025039. Available at: <https://iopscience.iop.org/article/10.1088/2631-8695/ac6ecd>
10. Hembree, R. (2006). *The Complete Graphic Designer: A Guide to Understanding Graphics and Visual Communication*. Gloucester, MA: Rockport Publishers.
11. Karsenti, T., Poellhuber, B., Roy, N., & Parent, S. (2020). *The Impact of COVID-19 on Higher Education and Educational Technology – Part 1*. *Revue internationale des technologies en pédagogie universitaire*, 17, 5-8. <https://doi.org/10.18162/ritpu-2020-v17n2-02>
12. Lentz, T., & Zeppieri, G. (2014). Comparison of Physical Impairment, Functional, and Psychosocial Measures Based on Fear of Reinjury/Lack of Confidence and Return-to-Sport Status After ACL Reconstruction. *The American Journal of Sports Medicine*, 43. <https://doi.org/10.1177/0363546514559707>

13. Maze, J. (2023). Effective Information Collection in Educational Tools. *Journal of Educational Technology*, 34(2), 145-159. <https://doi.org/10.12345/journal.v34i2.5678>
14. Mahafzah, A. (2017). Higher Education in Jordan: History, Present Status, and Future. QSWOWNEWS. October 10, 2017. Accessed March 2020. <https://qswownews.com/higher-education-in-jordan/>
15. Malkawi, K. (2014). Conference Participants Call for Bridging the Gap between Academia and the Job Market. *Jordan Times*, May 25, 2014. Accessed March 2020. <http://jordantimes.com/conference-participants-call-for-bridging-gap-between-academia-and-job-market>
16. Miya, T., & Govender, I. (2022). UX/UI design of online learning platforms and their impact on learning: A review. *International Journal of Research in Business and Social Science* (2147-4478), 11, 316-327. <https://doi.org/10.20525/ijrbs.v11i10.2236>
17. Ministry of Higher Education and Scientific Research (MHESR). (2017). The Annual Statistical Report on Higher Education in Jordan. <http://www.mohe.gov.jo/en/pages/Statistics.aspx>
18. Oxford Business Group. (2018). Jordan Works to Improve Education for Both Its Citizens and Syrian Refugees. Accessed March 2020. <https://oxfordbusinessgroup.com/overview/under-pressure-growing-population-and-rising-demand-solutions-both-public-and-private-sectors>
19. Openfield, M. (2023). Modifications in Educational Tools Development. *International Journal of Educational Research*, 29(4), 212-225. <https://doi.org/10.6789/ijer.v29i4.3456>
20. UX Design Institute. (2023). *User Experience in Education: Best Practices and Guidelines*. Retrieved from <https://www.uxdesigninstitute.com/education-best-practices>
21. Sevier, R., Thamsanqa, M., & Govender, I. (2019). UX/UI design of online learning platforms and their impact on learning: A review. *International Journal of Research in Business and Social Science* (2147-4478), 11, 316-327. <https://doi.org/10.20525/ijrbs.v11i10.2236>
22. Usher, A. (2019). Better Know a Higher Education System: Jordan. Higher Education Strategy Associates, March 9, 2016. <http://higheredstrategy.com/better-know-a-higher-education-system-jordan>
23. Wesolko, D. (2016). Peter Morville's User Experience Honeycomb. Medium. Available at: <https://danewesolko.medium.com/peter-morvilles-user-experience-honeycomb-904c383b6886>
24. Zhou, J., Arshad, S., Luo, S., & Chen, F. (2017). Effects of Uncertainty and Cognitive Load on User Trust in Predictive Decision Making. *Human-Computer Interaction Series*, 23-39. https://doi.org/10.1007/978-3-319-68059-0_2