



E-learning at Higher Education in Jordan: Systematic Review and Meta-Analysis

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Abstract

This Report Reviews The Evaluation Of Recent Studies And Findings On ELearning Satisfaction Among College Students And Instructors In The Gordanian Context, With an Emphasis on The Research Investigations That Focus on The Challenges of Online Courses. The Quantitative Descriptive Approach Was Utilized in The Current Study. The Study Discussed (31) Articles That Were Peer-Reviewed in International Journals During the COVID Pandemic 2020-2022. The Articles Were Obtained From Google Scholar and ERIC Databases. The Results Showed That Twenty-Three Articles out of 31 Unveiled Students' Attitudes Satisfaction, and Perceptions Towards ELearning, While 11 Articles Revealed Educators' Perceptions. Several Advantages And Drawbacks Of ELearning Were Affirmed in Many Studies. Further Research Was Recommended.

Keywords: ELearning, Higher Education, Gordan, Systematic Review, Meta-Analysis



Introduction

Many Nations Have Recently Imposed Security Restrictions In Response To The New Coronavirus (COVID-19) Epidemic, Which Tends To Range From partial To Total lockdowns. Correspondingly, Many Educational Institutions Had To Function Under Unusual Conditions And Switch To Online And Remote Teaching. Worldwide Educational Institutions Were Compelled To Temporarily Close And Switch From Face-To-Face Instruction To ELearning Due To The Crisis. Higher Education Institutions Were Obligated To look for Substitutes That Might Be Used To Ensure Educational Sustainability. In Reaction To The Shutdown Of Institutions, UNESCO Suggested Using Web-Based learning Tools and Platforms That Would Allow Educators and Campuses To Stay in Touch With Students And Monitor Their Educational Progress (UNESCO, 2020). Karasneh et al.(2021)cross-sectional, and descriptive study. A web-based survey was distributed to all university professors and lecturers in public universities across Jordan. Results A total of 508 educators responded to this study. Males (67.5%, n=343 Stated That Normally, Such Amove Would Need Months Of Planning and Training, But It Now Happens Instantly. As A result, Questions About How Well Institutions and Faculty Members are Equipped To Give High-quality Distant Education May Come Up Again. It Was Difficult For Educators And Students To Transition Education To Be Completely Online in Anation Where The Majority Of Educational Institutions Utilize Traditional Teaching Techniques.

A new Method Of Learning and Communicating, E-learning Makes Use of Cutting-Edge Computing Technology And High-Speed Connectivity. It Makes It Easier To learn Remotely, Acquire New Skills, And Engage Internationally. The Procedures And Contexts Related To learning Have Changed And Developed as Aresult Of These Emergent Technologies. E-learning Is Defined as Being Much More Than Mere Technology, Taking Into Account Four key Categories: "Technology, Delivery Systems, Communication, And Educational Paradigms." (Obeidat et al., 2020). E-learning Is a System That Offers Individuals To Adapt Their Learning To Their lives and

Provides The Option To Exchange Content In Avariety Of Multimedia Formats And Papers (Bari, Djouab, & Hoa, 2018).

We cannot overlook the importance of online learning, and many of our colleagues' scholars have written about its advantages (Naidu, 2019; Jaradat & Ajlouni, 2021; Altawalbeh & A Al-Ajlouni, 2022; Al-Khataybeh, 2022). Nevertheless, there are some difficulties with eLearning that have been addressed in numerous studies, such as the lack of technical expertise on the part of either instructors or students, or the absence of life and social interactions between students that may cause them to feel alone or disappointed.

Since COVID-19, several studies have been carried out to examine the newly emerging teaching experience in educational institutions, notably in higher education, from the viewpoints of instructors and students. The goal of the current study is to examine how eLearning has been used in colleges during the epidemic. The difficulties that both students and instructors endured, and the benefits and drawbacks of such a fresh experience. This paper reviews current findings in higher education institutions of students' and educators' satisfaction and perceptions with online learning, during the COVID epidemic. The analysis only includes research that outlines aspects of eLearning courses that affect students' learning satisfaction.

Questions of the Study

In this review the following research questions are addressed:

- 1- What are the students' perceptions of e-learning?
- 2- What are the faculty members' perceptions of e-learning?
- 3- What are the pros and cons of implementing e-Learning?

Significance of the study

This study updates the corpus of academic research done in the Jordanian context. Thus, in many respects, our project establishes the groundwork for doing more research. It gives academic members feedback to highlight their strengths and faults in terms of how much they use

enthusiasm approaches for e-learning. Also, it helps by supplying information to various education institutions' decision-makers so they can understand it and fix its shortcomings. In addition, this research would shed light on the overall challenges of eLearning in higher education institutions in Jordan.

Methodology

In this research, the basic steps that Khan et al. recommended are used (2003). Khan suggested carrying out a systematic literature review using these five processes: 1) Formulating review questions. 2) Finding pertinent work. 3) Evaluating the caliber of research. 4) Recapitulating the proof 5) Explaining the results.

This review article's purpose is to evaluate studies on e-learning at universities in Jordan published during the COVID crisis. The Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA) approach by Moher (2009) was used, which can be seen in Fig. 1.

The subsequent keywords were employed: eLearning, online learning, higher education, and Jordan. The following requirements were checked against titles and abstracts before articles were included: 1) addressed eLearning on higher education in Jordan. 2) examined students' and educators' perspectives. 3) discussed challenges of eLearning 4) in English. 5) the number of articles utilized was restricted to just three years 2020-2022. See Table 1 for filtering criteria.

Table 1. Filtering Criteria in ERIC and Google Scholar

Topic	E-learning
Document Type	Journal article
Location	Jordan
Publication date	Since 2020
Educational level	Higher education

A database search for pertinent studies was conducted, their abstracts were reviewed to determine those that were suitable, full-text articles were retrieved and evaluated, and a final list of chosen studies was created. The search was conducted by two reviewers in parallel and

autonomously, with the supervisor resolving any differences of opinion. Any search which was not meet the keywords was excluded. The ultimate decision was made to include a total of 31 articles in this review. Data from the articles were taken out and organized into topics.

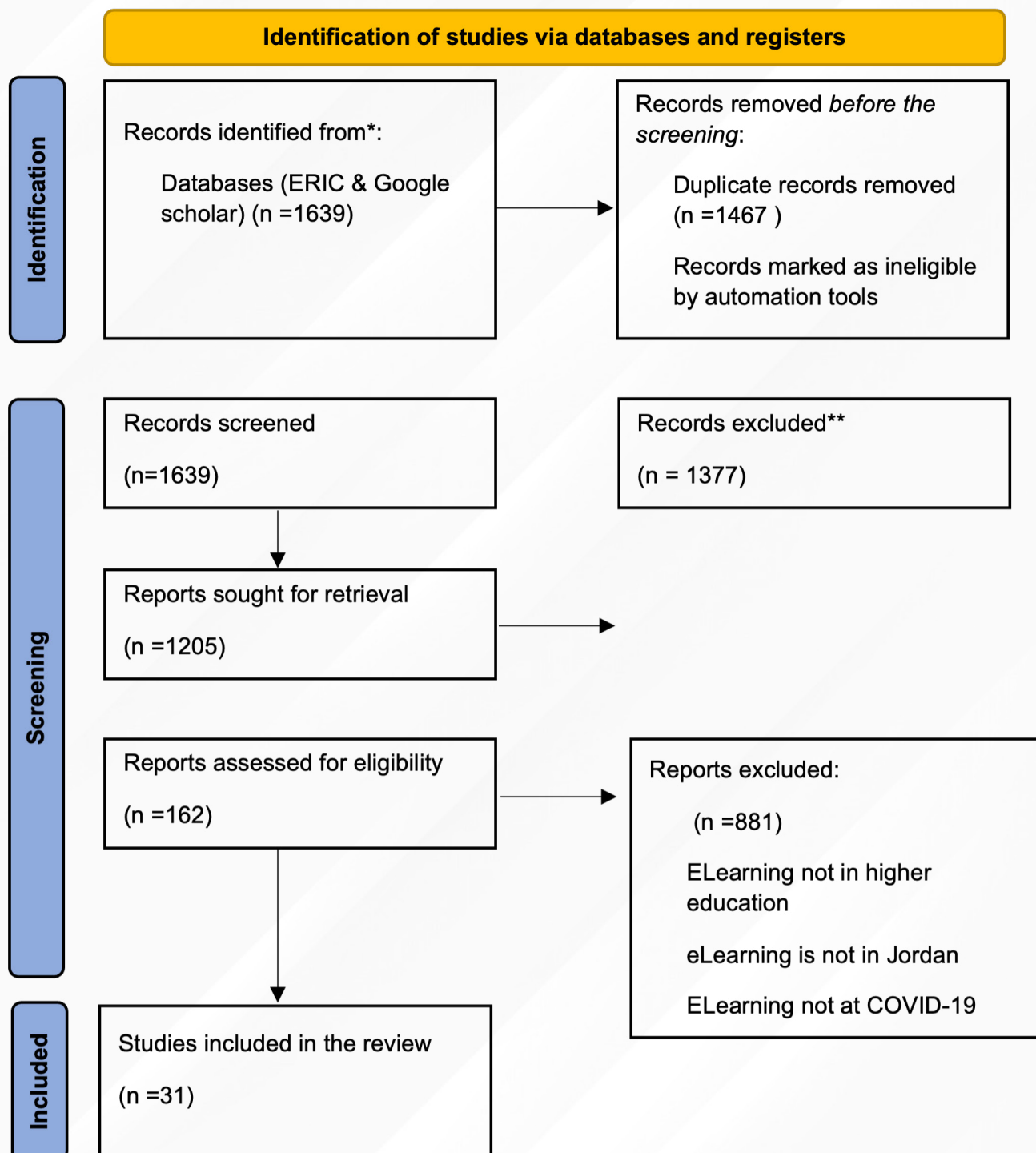


Fig. 1

From: Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. BMJ 2021;372: n71. DOI: 10.1136/bmj.n71

For more information, visit: <http://www.prisma-statement.org/>

Table 2. Studies Included in the Systematic Review

Author/year	Aim of the study	Approach	Sample Size	instrument	Results & Future studies
2020					
(Alameri et al., 2020) .1	examines students' perceptions of e-learning examines students' knowledge about Moodle, Microsoft teams, and Zoom platforms and how it contributes to self-study and academic performance	Qualitative & quantitative	450 students University of Jordan	questionnaire	the advantages and drawbacks of e-learning in the quality content analysis were detected e-learning connections is excellent The disposition of learners who have prior computer experience The usage of e-platforms greatly impacted self-studying and academic achievement

(Almaiah et al., 2020)	.2	Explore the critical challenges that face the current e-learning systems and investigate the main factors that support the usage of e-learning systems during COVID-19 pandemic	interview method using thematic analysis through NVivo software	students 30 and 31 experts in e-learning From 5 public universities	a semi-structured interview method	<p>The essential elements that should be considered by universities while making preparations for e-learning systems were: (1) technological factors, (2) e-learning system quality factors, (3) cultural aspects, (4) self-efficacy factors, and (5) trust factors</p> <p>the challenges that -impede the usage of e-learning systems: (1) change management issues, (2) technical issues, and (3) financial support issues</p>
(Al-Husban, 2020)	.3	investigated critical thinking indicators of students' postings on the asynchronous online discussion forums on the learning management system	Content analysis	students 19 case study Arab Open University		<p>Participants learn the fundamentals of critical thinking, but they must concentrate on .higher-order abilities</p> <p>More investigation should be done utilizing various course topics to teach students the critical thinking skills they require in higher .education</p>

Haider & S Al-Salman,) (2020)	.4	the reactions of university-level faculty members in Jordan towards their experience with COVID-19's emergency online learning model investigates- the advantages of switching to online learning, challenges faced, and suggestions for improving the teaching-learning process	Question-naire	in- 432 structors in six Jordanian public and private universities	structured open-ended questionnaire: challenges, advantages, and suggestions for improvement	the benefits: e-learning allowed teachers to employ innovative, efficient teaching methods and pick up new abilities. The difficulties included those linked to technology and the Internet, evaluation, engagement, and a lack of restrictions by lawmakers. Teachers recommended enhancing technological assistance, integrating online and conventional learning, delivering additional training, enhancing evaluation tools, and developing .new ones
(Alqudah et al., 2020)	.5	evaluate the e-Learning experience among Jordanian academic ophthalmologists during the coronavirus disease	questionnaire	academ- 23 ic	questionnaire	The key benefit of e-Learning was its flexibility with regard to time and location, but the main disadvantage was a lack of necessary skills. Participants (86.4%) expressed dissatisfaction with using e-Learning as the exclusive mode of instruction for undergraduates. In order to enhance the initial two-week on-campus ophthalmology course, (54.5%) recommended including e-Learning into the curriculum, (13.6%) favored lengthening the training duration, and (31.8%) said that their busy schedule does not provide for .extra activities

(Obeidat et al., 2020)	.6	assess students' perceptions of the effectiveness of the e-learning during the COVID-19 pandemic at the Hashemite University	qualitative	stu- 399 dents	survey	<p>The majority of students gave their online learning experiences good reviews</p> <p>students encountered difficulties with the technological aspects of their e-learning experiences (e.g., lack of a viable internet network, lack of laptops, etc)</p> <p>The platform that students favored for online learning was Microsoft Teams. Most students used cellphones to access the instructional content. Only the students' gender and academic specialty were significantly associated with how effectively they felt the e-learning system worked</p>
(Al-Okaily et al., 2020)	.7	Acceptance of e-learning System among Universities Students under the COVID-19 Pandemic Conditions		stu- 587 dents	survey	<p>Positive impact variables on the student's intention to use the e-learning system</p> <p>usefulness and simplicity of use</p>

S. A. Jaradat & Ajlouni,) (2020)	.8	investigated the levels of social presence, online learning self-efficacy, and student satisfaction among undergraduate students taking online courses from the School of Educational Sciences at the University of Jordan during the COVID-19 pandemic	qualitative	435 students University of Jordan	questionnaire	<p>moderate levels of social engagement and learning satisfaction along with high levels of self-efficacy .for online learning</p> <p>a strong correlation between social presence, student pleasure, and self-efficacy</p> <p>social presence - and online learning self-efficacy have a substantial influence on and predict student happiness in .such contexts</p>
2021						
Alsoud & Harasis,) (2021)	.9	the student's e-learning experience in Jordanian Universities as well as e-learning readiness during the pandemic		stu- 463 dents in private and public universities	A structural online questionnaire	<p>lack of technology - accessibility, shoddy internet connectivity, and challenging learning settings were the major difficulties</p> <p>The majority of the - students had never taken an online course prior to the .outbreak</p> <p>less than half of - them said they studied less than they did .before the pandemic</p> <p>more funding and - backup plans are required to create a robust educational system that enables online and remote learning throughout .Jordan</p> <p>further studies about-how the faculty members felt about teaching throughout .the epidemic</p>

Soub, T. F. Al; Al-) .10 (sarayreh, R.; Amarin, 2021	assess students' satisfaction with distance education of chemistry courses during the COVID-19	Descriptive analytical	126 students at Aqaba University	survey	a high level of general contentment. In particular, interactions with e-learning and approaches exhibit high levels of pleasure, but guidelines and website enhancement exhibit medium levels of happiness
Almahasees et al.,) .11 (2021	faculty's and Students' perception of the learning process	Qualitative and descriptive	faculty 50 members and another 280 students	surveys 2	online education is-beneficial, according to both educators and .students efficacy is less-efficient than in-person instruction and .learning challenges include-adjusting to online learning, particularly for deaf and hard-of-hearing students, a lack of contact and motivation, problems with technology and the Internet, data protection, and technical .difficulties the key advantages - being self-learning, affordability, practicality, and adapt-ability
Halalsheh et al., 2021)) .12 the study sample consists of 94 faculty members at the University of Jordan, numbering (94	attitudes of faculty members at the University of Jordan towards using blended learning in teaching and its difficulties in light of the COVID19 pandemic		faculty 94 members at the University of Jordan	survey	The item with the greatest mean is ranked first and says "The reality of utilizing the e-learning management system for blended learning courses," whereas the item with the lowest mean says "The reality of the e-learning management system for blended learning courses at the University of Jordan"

(Al-Fodeh et al., 2021)	.13	evaluate the quality and effectiveness of online dental .education	A cross-sectional exploratory study	stu- 314 dents	28-question online survey	<p>Almost 90% of respondents said that clinical and practical training couldn't be .delivered online</p> <p>Compared to 72% - of preclinical students, the majority of clinical students (83%) favored a mix of conventional and virtual instruction (p 0.05). Students in the clinical year were more receptive to connecting online with their peers and .teachers</p> <p>Compared to men, - women (65.8%) preferred conventional .tests</p>
(Bani Hani et al., 2021)	.14	assess the medical students' satisfaction and knowledge attainment through distant learning during the COVID-19 pandemic	a cross-sectional, self-reported, questionnaire-based study at JU	1000students	questionnaire	<p>There was a substantial correlation between student comfort and knowledge achievement and the preparation of the students, professors, and the .medical school</p> <p>Students were generally pleased with the e-learning experience and the .knowledge gained</p>
(Alkhalil et al., 2021)	.15	investigate how engineering students are coping with the e-learning methods adopted by Al- Zaytoonah University of Jordan during the pandemic	Qualitative & descriptive	en- 470 gineering students	survey	students are satisfied with the online teaching and learning

Karasneh et al., 2021)) .16 cross-sectional, and descrip- tive study. A web-based survey was distributed to all university professors and lecturers in public universities across Jordan. Results A total of 508 educators respond- ed to this study. Males (67.5%, n=343	assess the online learn- ing experience during the pandemic and recognize its perceived bar- riers according to university professors in .Jordan	a question- naire-based, cross-sec- tional, and descriptive study	educa- 508 tors	survey	positive perspectives- about online educa- tion ease using internet - .channels organizational - support for online learning seems to .have risen Poor internet - connections were an impediment to online .instruction drawbacks of- outdated learning resources (such as uploading capability) .and a familial setting Participants ac-- knowledgeed having computer and techno- .logical abilities Future research on- the online resources utilized by educators is advised to inform the development of effective online .learning resources
S. Jaradat & Ajlouni,) .17 (2021	students' perspectives of online learning at the Univer- sity of Jordan and determine the challenges	a quantitative approach	stu- 398 dents	questionnaire	Students enjoyed- learning online in the .past Tension and- stress-related con- cerns, inconsistent internet service, sluggish e-learn- ing platforms and services, a shortage of information and communication tech- nology skills, poor organizational skills, and diversions were some of the difficul- ties students faced



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(Alomyan, 2021)	.19	the impact of the sudden transition from face-to-face learning to distance learning on students' psychology and .learning	qualitative	401 students University ,of Petra	questionnaire	<p>negative psycholog-ical consequences of distant education on both participants' psyche and learning during the Covid-19 .epidemic</p> <p>first and second-year-students, as well as those with poorer computer abilities, experienced the most unfavorable emotion-al impact (i.e., feel-ing anxious, bored, (and nervous</p> <p>first-year students-and those with lower computer skill levels reported a negative impact on learning (i.e., experiencing lethargy and laziness when taking online lectures, poor focus, and the inability to be self-reliant when learning) by online .classes</p>
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Abdelraziq et al., 2021)) .20 the study attempts to find out whether universities are prepared for online assessment during the lockdown and to probe feasible solutions to the challenges that hinder proper assessment in a virtual learning environment (VLE	delineate the observations of instructors at Princess Sumaya University for Technology (PSUT) in Jordan with regards to online assessment of their students during the time of the Corona-virus probe feasible - solutions to the challenges that hinder proper assessment in a virtual learning environment		eighty-three faculty member		During the shut--down, institutions quickly turned to e-classes, but they were not fully prepared for an effective evaluation in an .online context teachers were-suspicious about the efficacy of remote evaluation of their .pupils faculty members believed that there was still a long way to go in terms of (1) the lack of trustworthy apps to prevent academic misconduct; (2) some teaching staff inability to evaluate their educators in VLE because it was their first experience; and (3) formative assessment not receiving adequate .consideration
Alkhawaja, M.I. , Mutia) .21 (S. A., Afthanorhan, 2021	investigated the moderating impact of technology anxiety on the relationship between the instructor's self-efficacy and the e-learning system's actual use to contribute to solving the problem		in- 468 structor	survey	a direct favorable-influence of self-effi-cacy on actual use the amount of tech-nological concern mitigated the association. Instructors with relatively inefficient anxiety used e-learning systems more frequently than those .with high anxiety

(Mahasneh et al., 2021)	.22	exploring the forms, benefits, and obstacles of distance education during the COVID-19 pandemic		uni- 377 versity students	questionnaire	During the-COVID-19 era, synchronous e-learning and the utilization of social media platforms became the most often employed methods of delivering instructional material students claimed-that the most important advantages of distant learning were cost savings and improved academic achievement
Hijazi & Alnatour,) (2021)	.23	carried out on students who joined EFL English-99 and English-101 courses that enforced online learning during the 2019/2020 summer semester at Yarmouk University	A quantitative approach	stu- 1200 dent YU		The intensity of the problems was as follows: instructional techniques, social factors, architecture, computer abilities, and collaboration all presented a high level of difficulty assessment methods, motivation and willingness presented a moderate level of difficulty
2022						

Sakka & Namaziandost,) 2022)as online distance learning was imposed on students in higher education in Jordan, and there were no other available alternatives; therefore, the study investigates the drivers for intentions. This study also attempted to extend the theory, which does not underestimate the robustness and validity of the proposed framework. It was seen vital to cope with the consequences of the COVID-19 pandemic, which has become a strong influencer when considering the subject of this study. Two additional factors were suggested by the study, namely: perceived value and expected cost. The quantitative deductive exploratory methods, structural equation modelling, smart partial least squares (v.3.3	student's acceptance of distance learning i	quantitative deductive exploratory methods, structural equation modeling, smart partial least squares, and path analysis	stu- 178 dents	conceptual framework ((UTAUT scale	Students were-ignorant of the advantages of distance learning, such as less effort and higher .performance The impact of on- - line courses on learners must be studied in multicenter contexts with a large number .of participants
(Al-Salman et al., 2022) .25	depict and probe into the building tension, stress, and depression to which Jordanian university students have been vulnerable after the compulsory shift to online learning and their prolonged use of digital tools	qualitative	stu- 775 dents from public & private universities	a five-construct questionnaire, namely, use of digital tools in e-learning, sleeping habits, social interaction, psychological reactions, and academic performance	Extended use of digital tools, a loss of face-to-face connection, and a high workload have resulted in anxiety, changes in sleeping patterns, distraction, and a stressful atmosphere, perhaps leading to depression - The extended and increasing social, psychological, and loss of attachment circumstances, as well as the worsening economic situations, have raised the number of psychological illnesses and resulted in a reduction in individuals' educational .outcomes

(Ababneh, 2022)	.26	identifying the quality of using blended learning within COVID-19 pandemics in teaching some postgraduate courses at the University of Jordan from the students' perspectives	Descriptive approach	student 130	survey	Learners were- extremely happy with the use of integrated teaching in the key areas: elements of blended learning, student roles, instructor roles, and blended learning resources -students responded moderately to the e-learning system
(Ayasrah et al., 2022)	.27	students were highly satisfied with using blended teaching in the following areas, aspects of blended learning, the role of students, the role of teachers, and the blended learning materials. However, students showed medium responses to the e-learning system's	descriptive	teachers 69 and 201 outstanding students	surveys 2	instructors' and- excellent students' attitudes toward blended learning .were ordinary there were no statistically meaningful variations in the perspectives of instructors and exceptional students regarding Blended learning in context of the expansion of the Covid-19 epidemic owing to gender. -The grade level demonstrated an adverse association and a poor degree between the instructors' predisposition toward Blended learning based on teaching experience, according to the best .student

Shahroury & Shahroury,) (2022	.28	analyses the application of e-learning in the engineering faculty at Princess Sumaya University for Technology (PSUT) in Jordan	analysis			<p>The implementation of the flipped classroom strategy assisted in overcoming the problems linked with the Electronics II course's e-learning and maintaining an overall performance</p> <p>some obstacles related to poor infrastructure, students' inability to access required software, and fear of public appearance on e-learning platforms due to some societal norms that restrict involvement in the flipped classroom approach</p>
Altawalbeh & A Al-) (Ajlouni, 2022	.29	explore the impact of distance learning in science education at Jordan University of Science and Technology (JUST) during the COVID-19 pandemic	Qualitative and quantitative	faculty 28 members	Survey	<p>Distance education has had a tremendous influence on science education. Many barriers and difficulties were noted by the respondents, notably network connection troubles and an absence of experience with new technologies and instructional methodologies</p> <p>of participants -75% felt that technological issues were the primary major barrier. This study also looked at the benefits of distant learning; participants reported learning new approaches and teaching abilities</p>

(Almoussa et al., 2022)	.30	identify the degree to which faculty members practice excitement styles during distance learning	descriptive	stu- 298 students Amman Arab University		There were no statistically significant variations in practicing enthusiasm techniques owing to gender, instructor, or academic program factors
(Al-Khataybeh, 2022)	.31	investigates the effect of the abrupt switch to online teaching on the written production of the curriculum and instruction of postgraduate students' research writing for the academic year 2020 due to the COVID-19	quantitative	Ph.D. 53 and Post-Graduate students at Mut'ah University	close-ended questionnaire	that students and university authorities have swiftly acclimated to the new developments, with observable positive views among Ph.D. and Post-Graduate students about the virtual activities used in teaching and learning writing

Results and Discussion

Table 2 showed that despite the obstacles and problems, practically both public and private colleges attempt to confront eLearning. The following section will discuss results for students' satisfaction, and perceptions, faculty members' perceptions, and the advantages and disadvantages of eLearning.

1. Students' Satisfaction and Perceptions

Table 2 showed that many studies investigated students' perceptions about online learning. The articles assessed the satisfaction of students (Soub et al., 2021, Al; Alsarayreh, Amarin, 2021; Bani Hani et al., 2021; Ayasrah et al., 2022; Alkhalil et al., 2021; Karasneh et al. 2021), in harmony with (Kaur Gill et al., 2022) study in which the students found eLearning effective. In the study of Jaradat & Ajlouni (2020) the average score for student satisfaction indicated a moderate overall level of student satisfaction. While Soub et al. paper (2021) showed a high level of satisfaction. According to this study, increased student satisfaction will be the outcome of placing a

focus on students' social presence and online learning self-efficacy.

Many studies showed positive students' attitudes toward e-learning (Alameri et al, 2020; Al-okaily et al., 2020; Obeidat et al., 2020; Soub et al., 2021) in Bani Hani et al. study (2021) and Karasneh et al. 2021. Inconsistent with the study of Alqudah et al. (2020) participants (86.4%) were not satisfied with e-Learning. The satisfaction may be attributed to the pleasure of the students. In addition, the degree of student happiness improved as reported socialization grew.

A total of twenty-three out of thirty-one articles investigated students' perceptions of eLearning. Most studies discussed students' perspectives and attitudes towards eLearning during the pandemic for education. And they show students' positive attitudes regarding eLearning, e.g. (Alameri et al., 2020; Obeidat et al., 2020; Alameri et al., 2020; Obeidat et al., 2020; Al-Okaily et al., 2020; Jaradat & Ajlouni, 2020; Alsoud & Harasis, 2021; Alshaboul et al., 2021; Alomyan, 2021; Jaradat & Ajlouni, 2021; Ababneh, 2022). Almahasees et al., 2021 found Elearning less effective than conventional education. Overall, the majority of research supported the use of formal education during the pandemic that used electronic learning.

2. Faculty members' Perceptions

A total of 11 studies out of 31 types of research examined the educators' impression of eLearning. (Almousa et al., 2022) found the degree to which faculty members practice excitement styles during distance learning was medium. While other articles examined faculty members' points of view on online learning e.g. ((Haider & Al-Salman, 2020; Alshaboul et al., 2021; Abdelraziq et al., 2021; Halalsheh et al., 2021; Alkhawaja, M.I., Mutia S. A., Afthanorhan, 2021; Karasneh et al., 2021; Shahrouy & Shahrouy, 2022; Altawalbeh & Al-Ajlouni, 2022; Almousa et al., 2022). Also, many investigations revealed the pros and cons of implementing online learning during the epidemic.

3. Advantages and Disadvantages of eLearning

Most studies of the aforementioned articles outlined the merits and demerits of eLearning (Alameri et al., 2020; Almaiah et al., 2020; Haider & Al-Salman, 2020; Alqudah et al., 2020; Obeidat

et al., 2020; Al-Okaily et al., 2020; Alsoud & Harasis, 2021; Almahasees et al., 2021; Karasneh et al., 2021; Jaradat & Ajlouni, 2021; Abdelraziq et al., 2021; Mahasneh et al., 2021; Hijazi & Alnatour, 2021; Sakka & Namaziandost, 2022; Al-Salman et al., 2022; Shahroury & Shahroury, 2022; Altawalbeh & Al-Ajlouni, 2022).

The flexibility of time and place were the most significant advantages of e-learning (Altawalbeh and Al-Ajlouni, 2022; Al-Khataybeh, 2022). Participants concluded that it could not take the place of the traditional teaching style. Instead, to improve students' productivity, they suggested incorporating e-learning techniques into the original curriculum. And in (Jaradat & Ajlouni, 2021) study students can adapt to new learning and found that eLearning is useful.

While the lack of e-learning expertise was the primary concern of the majority (Karasneh et al., 2021; Hijazi & Alnatour, 2021; Al-Khataybeh, 2022; Altawalbeh and Al-Ajlouni, 2022). Besides, financial difficulties, internet connectivity, e-learning platform services, hardware, and software availability, mental health, motivation, focus, time management skills, technological skills, technical orientation and guidance, technophobia, isolation, instructors interaction, teaching strategy, learning material quality, assessment, and evaluation all these challenges reported by (Jaradat & Ajlouni, 2021). While Hijazi & Alnatour (2021) asserted that teaching methods, social aspects, poor infrastructure, infrastructure computer skills, and coordination are the challenges of learning. In line with (Alkhawaja, M.I., Mutia S. A., Afthanorhan, 2021,) uncovered that the most common elearning challenges students cited were poor Internet connection, expensive Internet services, and difficulties keeping up with practical courses. To build a solid infrastructure for online learning, a huge cost and a lot of planning are needed. (Almoussa et al., 2022) affirmed the need for greater educational institution readiness and preparation, and provision of all necessary equipment and services for eLearning. Showcasing and offering top-notch training courses intended at enhancing teaching abilities to attain successful learning.

Abdelraziq et al. (2021) the study attempts to find out whether universities are prepared for online assessment during the lockdown and to probe feasible solutions to the challenges that hinder proper assessment in a virtual learning environment (VLE detected that the lack of dependable

software to prevent academic misconduct, the inability of certain teachers to evaluate their students in eLearning since it was their first time, and the neglect of formative assessment were all highlighted by the research. All the previous challenges are in line with (Kombe & Mtonga, 2021) study which identified that students with limited resources faced a variety of eLearning-related difficulties, which were grouped into the following interconnected themes: technological, environmental, psychological, sociocultural, financial, and material issues. The most significant obstacles to eLearning were a lack of ICT facilities and equipment (laptops, cellphones, tablets, and desktops), internet, electricity, and support systems. These results may be clarified by that the transition to e-learning has been difficult, nonetheless, as a result of several obstacles that have been identified from prior experiences. These obstacles to online learning can be divided into four basic categories: abilities, materials, institutional tactics, and perspectives.

Conclusion and Recommendations

This study focuses on the research of eLearning and how they impact students' and educators' satisfaction with their learning experiences when face-to-face courses are swiftly converted to online during the COVID-19 epidemic e.g. (Alameri et al., 2020; Obeidat et al., 2020; Al-Okaily et al., 2020; Jaradat & Ajlouni, 2020; Alsoud & Harasis, 2021; Soub et al., 2021; Almahasees et al., 2021; Jaradat & Ajlouni, 2021). the peak publication was in 2021 according to the current study.

Reflecting on the e-learning implementation experiences of several institutions, it is discovered that many fundamental factors must be taken into account while creating and implementing e-learning. Even though the included research on e-learning was mostly geared toward higher education facilities, other educational establishments might gain from this study. A series of suggestions were made in light of the results:

- Choose an e-learning strategy thoughtfully which is best for the university.
- Before creating an e-learning course, properly analyze the institution's outcomes and provision of infrastructure.
- The provision of ongoing training for academic staff, including teachers and staff members, on the competencies required to carry out the program and continually im-

prove delivery effectiveness.

- Establishing a networking mechanism for lecturers to discuss concepts and/or success factors will motivate them to collaborate.
- Enhance the methodologies for e-learning in Jordanian higher education institutions, promote university students' connection to the Web, and improve Jordan's internet access and services.

Limitations and Future Research

Only the most recent papers on the impression of e-learning during COVID-19 are covered in this study. Due to the pandemic-related nature of the issue, articles were still inadequate to offer a clear picture of E-learning consumers as a whole. Also the articles about eLearning in Jordan. Articles were obtained from two databases ERIC and Google scholar, so there is a chance that articles on the subject will be accessible via other databases. Only articles are included in this study. In other studies, other academic studies may be analyzed, assessed, or incorporated.

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