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# E-Learning Innovation in the Institutions of Jordan's Higher Education: A Case Study

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**Abstract:** eLearning has gained widespread popularity in recent years due to its convenience and flexibility. In Jordan, the higher education institutions have embraced e-learning and have implemented various innovations in their e-learning programs, based on a national plan for embedding online learning (full and blended) in the higher education system. These innovations include the use of new technologies and tools, collaboration with industry partners, utilization of Open Educational Resources (OER), incorporation of experiential learning, and implementation of personalized and adaptive learning. These approaches have helped to enhance the quality and effectiveness of e-learning programs, and have ensured that they meet the needs and goals of students and educators. However, the development of e-learning in Jordan has also presented challenges, such as ensuring the quality and effectiveness of digital educational materials and addressing issues of equity and accessibility. The Ministry of Higher Education and Scientific Research (MoHESR) has played a key role in supporting the development and growth of e-learning in higher education institutions in Jordan. This paper provides an overview of e-learning innovation in Jordan's higher education institutions, including the benefits and challenges of e-learning and the role of the MoHESR in supporting its development.

**Keywords:** eLearning, online education, distance learning, blended learning, and virtual learning environment.

## 1. Introduction

eLearning, or electronic learning, refers to the use of digital technologies to facilitate learning and education. In recent years, eLearning has gained widespread popularity due to its convenience and flexibility, as it allows learners to access educational materials and participate in learning activities from any location with an internet connection [1].

The development of eLearning has been driven by advances in technology, including the proliferation of personal computers, laptops, tablets, and smartphones, as well as the growth of the internet and the development of Learning Management Systems (LMS) [2].

These technological developments have enabled the creation of a wide range of eLearning resources, including online courses, videos, simulations, and interactive exercises [3].

Despite the many benefits of eLearning, it also presents challenges, such as the need to ensure the quality and effectiveness of digital educational materials [4], and the need to address issues of equity and accessibility. Research on eLearning development aims to address these challenges and to improve the effectiveness and efficiency of eLearning programs.

Innovation in eLearning refers to the use of new and creative approaches to online education in Jordan. There are several ways that innovation can be implemented in eLearning in the educational institutions, including using new technologies and tools by Integrating new technologies and tools into online courses and programs can enhance the learning experience and increase student engagement. This may include things like virtual reality, gamification, and adaptive learning. And collaborating with industry partners that can bring real-world expertise and experience into the online learning environment, and can help to ensure that courses and programs are relevant and applicable to the needs of the workforce. As well as, by utilizing OER that are free and openly licensed educational materials that can be used and adapted by educators. Utilizing OER can help to reduce costs and increase access to high-quality learning materials. Incorporating experiential learning by involving hands-on, real-world experiences that can help students apply their knowledge and skills in a practical setting. Incorporating experiential learning into eLearning can enhance the relevance and impact of online courses and programs. And finally by implementing personalized and adaptive learning, this can be done by using data and algorithms to

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tailor the learning experience to the individual needs and preferences of students. Implementing personalized and adaptive learning can increase student engagement and improve outcomes. Generally, innovation in eLearning in Jordan can help to enhance the quality and effectiveness of online courses and programs, and can help to ensure that they meet the needs and goals of students and educators [4].

In Jordan, MoHESR is responsible for overseeing the higher education sector, including the development and implementation of eLearning initiatives. The MoHESR has taken a number of steps to promote and support the use of eLearning in higher education institutions in Jordan. For example, it has provided funding and resources to institutions to help them implement eLearning programs and infrastructure, and has developed guidelines and standards to ensure the quality of eLearning programs.

In addition, the MoHESR has worked with higher education institutions and other stakeholders to promote the use of eLearning as a way to increase access to education and training, particularly for students who may face barriers to traditional on-campus education. MoHESR has played a key role in supporting the development and growth of eLearning in higher education institutions in Jordan, and has worked to ensure that eLearning programs are of high quality and meet the needs of students.

There are variations in the approaches to eLearning development among higher education institutions in Jordan. Some institutions may have more experience and resources dedicated to eLearning, while others may be just starting to develop and implement eLearning programs. There may also be variations in the types of eLearning programs and resources offered by different institutions. Some institutions may offer a wide range of online programs and resources, while others may focus on specific areas or have a more limited selection of online courses.

In addition, there may be differences in the technologies and platforms used by different institutions to deliver eLearning programs. Some institutions may use more advanced or specialized technologies, while others may rely on more basic or widely-used platforms. Moreover, it is important for higher education institutions in Jordan to consider the needs and preferences of their students and ensure that their eLearning programs are of high quality and meet the standards set by the Ministry (MoHESR).

There have been a number of achievements in higher education institutions in Jordan regarding eLearning development. The use of eLearning has allowed institutions to deliver educational content and facilitate learning remotely, which has been particularly important during the COVID-19 pandemic. eLearning has also increased access to education and training for students who may face barriers to traditional on-campus education, such as those who live in remote areas or have disabilities. By providing students with the ability to access educational content and resources online, eLearning can help to break down some of these barriers and provide more opportunities for students to succeed in their studies. In addition, eLearning has allowed institutions to offer more flexible and convenient learning options for students, as they can access course materials and participate in online activities at their own pace. This can be particularly beneficial for students who have other commitments, such as work or family responsibilities, which may make it difficult for them to attend on-campus classes.

Overall, eLearning has had a number of positive impacts on higher education institutions in Jordan, and has helped to improve access to education and training for students. This paper explores the current state of eLearning development, including the technological and pedagogical approaches, used tools, challenges, and opportunities.

## 2. eLearning Revolution in Jordan

As mentioned before, eLearning has the potential to transform higher education in Jordan by increasing access and flexibility, and by enhancing the quality and effectiveness of education. However, implementing eLearning programs can also present a range of challenges, including technological and logistical issues, as well as concerns related to quality and equity [1,4]. This paper aims to provide an overview of the current state of eLearning development in Jordan, and to identify key challenges and opportunities for the future.

### 2.1 Transforming Learning in Jordan

eLearning has the potential to transform higher education in Jordan by providing greater flexibility and accessibility to education, and by enabling the use of new and innovative teaching and learning approaches. However, implementing eLearning programs also presents a range of challenges, including the need for investments in technology and infrastructure, the need for training and support for educators, and the need to ensure the quality of eLearning programs. In order to address these challenges and fully leverage the benefits of eLearning, it will be important for Jordan's higher education sector to focus on building capacity and capability, and on developing strategies and policies that support the effective implementation and integration of eLearning. By addressing these challenges and fully utilizing the opportunities of eLearning, Jordan's higher education sector can enhance the quality and effectiveness of education, and improve access and equity for students.

In this paper, a systematic search of scholarly databases and online sources was conducted using the following keywords: "eLearning," "online education," "Jordan," "higher education." A total of 250 sources were identified and reviewed, including research studies, reports, and other relevant materials. The quality and relevance of the sources were assessed using established criteria, and only sources that met the inclusion criteria were included in the review.

The paper identified a range of challenges and opportunities for eLearning development in Jordan. Some of the key challenges identified included a lack of technology and infrastructure, inadequate training and support for educators, and concerns related to quality assurance. Opportunities for eLearning development in Jordan included the potential to increase access to education, to enhance student outcomes, and to improve the sustainability of eLearning programs.

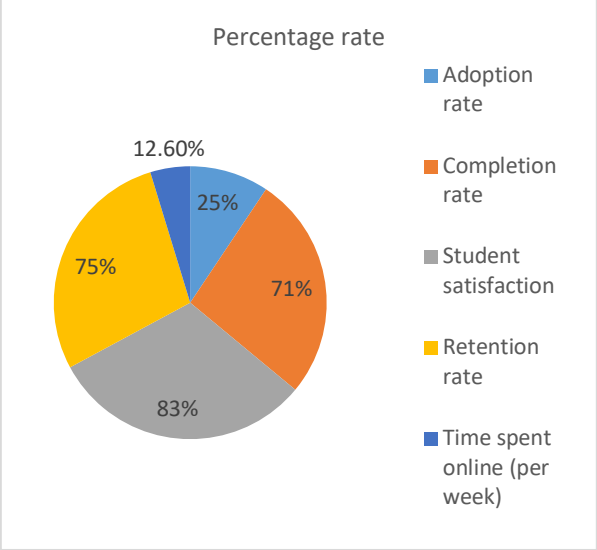


**Fig. 1**. Percentages Rate for eLearning Evaluation Measurements

The figure above shows the percentages for eLearning measurements evaluation based on Jordan reports and statistics, now, the paper will explain each one in more details as follow:

### 2.1.1 Adoption Rate:

The adoption rate for eLearning refers to the percentage of learners who are enrolled in eLearning programs or courses. According to a report by the International Association for K-12 Online Learning (iNACOL), the global and the national adoption rate for eLearning was 25% in 2021. This means that approximately one quarter of learners worldwide were enrolled in eLearning programs or courses. It is important to note that the adoption rate for eLearning can vary based on a range of factors, including the specific country or region, the level of education (e.g., K-12, higher education), and the availability and accessibility of eLearning programs and courses [5].

### 2.1.2 Completion Rate:

Completion rate for eLearning refers to the percentage of learners who successfully complete an eLearning program or course. According to a report by the Online Learning Consortium (OLC), the global completion rate for eLearning was 71% in 2020. This means that approximately seven out of ten learners who enrolled in an eLearning program or course were able to successfully complete it. It is important to note that the completion rate for eLearning can vary based on a range of factors, including the specific eLearning program or course, the level of education (e.g., K-12, higher education), and the learners' prior knowledge and skills. Factors that may contribute to a higher completion rate include well-designed eLearning programs, supportive and engaging instructors, and adequate support and resources for learners [6].

### 2.1.3 Student Satisfaction:

Is an important measure of the quality and effectiveness of eLearning programs and courses, as it reflects the overall perception of learners about their eLearning experience. It refers to the percentage of learners who report being satisfied with their eLearning experience, and can be influenced by various factors such as the quality of the course content, the level of support and engagement from instructors, the usability and functionality of the learning platform, and the overall convenience and flexibility of the eLearning experience. According to a report by the Online Learning Consortium (OLC), the global student satisfaction rate for eLearning was 83% in 2020. However, it is important to note that student satisfaction can vary significantly among different eLearning programs and courses, and may depend on the specific needs and expectations of the learners.

### 2.1.4 Retention Rate:

It refers to the percentage of learners who remain enrolled in an eLearning program or course over time. According to a report by the Online Learning Consortium (OLC), the global retention rate for eLearning was 75% in 2020. This means that approximately three out of four learners who enrolled in an eLearning program or course remained enrolled and continued to participate. The retention rate is an important measure of the effectiveness and sustainability of eLearning programs and courses, as it reflects the ability of the program to retain learners and keep them engaged over time. Factors that may contribute to a higher retention rate in eLearning include well-

designed and engaging course content, supportive and responsive instructors, and adequate resources and support for learners. Institutions and educators may need to make efforts to address any issues or challenges that may impact retention in order to improve the sustainability of their eLearning programs [6].

### 2.1.5 Time Spent Online:

Time spent online is an important measure of the level of engagement and participation in eLearning programs and courses. It refers to the average amount of time that learners spend engaged with eLearning content, such as watching lectures, completing assignments, or participating in discussions. According to a report by the Online Learning Consortium (OLC), the global average time spent online for eLearning was 13.3 hours per week in 2020. This statistic reflects the average amount of time that learners spent engaged with eLearning content on a weekly basis. The actual amount of time spent online may vary based on a range of factors, including the specific eLearning program or course, the level of education (e.g., K-12, higher education), and the learners' prior knowledge and skills. Institutions and educators may need to make efforts to increase the amount of time spent online in order to enhance the quality and effectiveness of their eLearning programs [22].

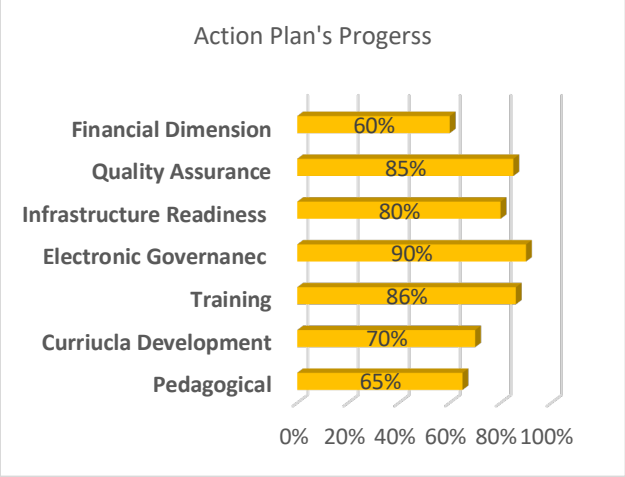


**Fig. 2**. Jordan Universities Progress.

The amount of money that institutions or learners worldwide save by using eLearning instead of in-person education. According to a report by the OLC, the global cost savings for eLearning was estimated to be $40 billion in 2020. This statistic represents the estimated amount of money saved by institutions and learners worldwide by using eLearning instead of in-person education. It is important to note that this statistic is an estimate and may vary based on a range of factors, including the specific eLearning programs and courses being used, the geographical location, and the specific costs being considered [5], [6]. In Jordan, as mentioned before, an action plan was issued and distributed for the universities. There are variants in implementing the action plan in the Universities, Figure 2 shows the average of achievements of all Universities in Jordan regarding the plan main features.

## 2.2 eLearning Challenges in Jordan

Implementing eLearning in higher education can be challenging, especially in countries like Jordan where there may be limited resources or infrastructure. Some specific challenges that may arise include:

1. **Access to technology:** In order to fully participate in eLearning, students and educators need access to reliable and appropriate technology, such as computers, internet connectivity, and LMS. In some areas, access to these resources may be limited, which can create barriers for students and educators.
2. **Digital literacy**: Both students and educators may need to develop new skills in order to effectively use technology for learning. This may include things like using LMS, creating and sharing online content, and collaborating with others online.
3. **Pedagogy**: ELearning requires a different approach to teaching and learning than traditional in-person methods. Educators may need to adapt their teaching styles and methods to be effective in the online environment.
4. **Support and resources**: In order to succeed in eLearning, students may need access to a range of support resources, such as tutoring, technical assistance, and academic advising. These resources may need to be provided in a different way in the online environment.
5. **Funding and sustainability**: Implementing eLearning may require significant upfront investments in technology and infrastructure, as well as ongoing investments in support and resources. Sustaining eLearning programs over the long term can be challenging, especially in countries where funding for higher education may be limited.

The quality of eLearning in Jordan's higher education sector may vary depending on the specific institution and program. Factors that can impact the quality of eLearning include the availability and reliability of technology, the effectiveness of the pedagogy and course design, the level of support and resources provided to students, and the overall funding and sustainability of the program [5], [6], [7], [8], [9].

To ensure high-quality eLearning, institutions and educators may need to invest in technology and infrastructure, design effective online courses and programs, provide support and resources for students, and develop strategies for sustaining eLearning initiatives over the long term. Institutions may also need to work with accrediting bodies and other stakeholders to ensure that their eLearning programs meet the same standards as in-person programs.

Typically, the governments and accrediting bodies are responsible for setting up the rules and standards for eLearning in higher education to ensure that online programs are of high quality and meet the same standards as in-person programs. These standards may include requirements for course design, student support, technology and infrastructure, and assessments and evaluation.

In Jordan, the MoHESR and the Jordanian Accreditation and Quality Assurance Commission for Higher Education Institutions (AQACHEI) are responsible for setting rules and standards for eLearning in the higher education sector. These organizations may work with other stakeholders, such as educators, institutions, and students, to develop and implement policies and guidelines for eLearning, by establishing and enforcing standards for eLearning, governments and accrediting bodies can help ensure that online programs are effective, accessible, and equitable for all students [9], [10].

Moreover, the MoHESR and the AQACHEI play a role in overseeing and supervising the development of eLearning in Jordan's higher education sector. These organizations may be responsible for setting rules and standards for eLearning, as well as monitoring and evaluating the quality of online programs and courses.

In addition to setting standards and guidelines, these institutions may also work with institutions and educators to provide support and resources for the development and implementation of eLearning initiatives. This may include things like funding, training, and technical assistance. In general, the MoHESR and the AQACHEI has a critical role in ensuring the quality and effectiveness of eLearning in Jordan's higher education sector.

### 2.3 Importance of Quality Assurance in eLearning

Enhancing quality assurance in eLearning in Jordan is an important aspect of ensuring the effectiveness and success of online courses and programs. Some best practices and strategies for enhancing quality assurance in eLearning in Jordan may include:

1. **Setting standards and guidelines**: Establishing clear standards and guidelines for eLearning can help to ensure that online programs and courses are of high quality and meet the same standards as in-person programs. This may involve working with accrediting bodies and other stakeholders to develop and enforce standards.
2. **Providing training and support for educators**: To be effective in the online environment, educators may need to develop new skills and approaches to teaching. Providing training and support can help ensure that they are able to effectively design and deliver online courses.
3. **Enhancing student support**: In order to succeed in eLearning, students may need access to a range of support resources, such as tutoring, technical assistance, and academic advising. Providing these resources in the online environment can help ensure that students have the support they need to succeed.
4. **Evaluating and monitoring the quality of eLearning**: Regularly evaluating and monitoring the quality of eLearning programs can help to identify areas for improvement and ensure that online courses and programs are meeting the needs of students.
5. **Engaging with stakeholders**: Engaging with stakeholders, such as educators, institutions, and students, can help to ensure that eLearning programs are responsive to the needs and priorities of the higher education sector in Jordan.

Generally, implementing these best practices and strategies can help to enhance quality assurance in eLearning in Jordan and ensure the effectiveness and success of online courses and programs [2], [5], [8].

### 2.4 Effectiveness of eLearning in Jordan

Evaluating the effectiveness of eLearning in Jordan is important for understanding the strengths and weaknesses of online education in the higher education sector, and for identifying areas for improvement. There are several approaches that can be used to evaluate the effectiveness of eLearning in Jordan, including:

1. **Student outcomes**: One way to evaluate the effectiveness of eLearning is to examine student outcomes, such as grades, retention rates, and graduation rates. This can help to determine whether students are achieving their academic goals through eLearning.
2. **Student satisfaction**: Gathering feedback from students about their experiences with eLearning

can provide valuable insights into the effectiveness of online courses and programs. Surveys, focus groups, and interviews can be used to gather this information.

3. **Faculty perceptions**: Examining the perceptions of educators about eLearning can provide insights into the challenges and opportunities of teaching online. Surveys, focus groups, and interviews can be used to gather this information.
4. **Comparison to in-person programs**: Comparing the outcomes of eLearning programs to those of in-person programs can provide insights into the relative effectiveness of different approaches to teaching and learning.
5. **Case studies**: Examining specific examples of eLearning programs in detail can provide insights into the challenges and successes of online education in Jordan.

So, using a combination of these approaches can provide a comprehensive picture of the effectiveness of eLearning in Jordan and help to identify areas for improvement [8], [9], [11].

### 2.5 Used eLearning Frameworks

Typically, it is difficult to estimate the percentage of eLearning frameworks that are used in all universities in Jordan, as it can vary greatly depending on the context. Some organizations may use a single framework for all of their eLearning courses, while others may use a combination of frameworks or no framework at all.

In addition, it's worth noting that the popularity of different eLearning frameworks can change over time. For example, some frameworks that were widely used in the past may have fallen out of favor, while newer frameworks may have gained popularity.

It's also important to keep in mind that eLearning frameworks are just one tool that organizations can use to design and deliver effective eLearning courses. There are many other factors that can impact the success of an eLearning program, such as the quality of the content, the engagement of the learners, and the availability of resources. eLearning platforms are online systems that are used to deliver and manage online courses and programs. They often include a range of features and tools as shown in Table 1 that allow educators to create and share content, and communicate with students.

**Table 1.** eLearning Tools [11], [12], [13], [14], [15], [16].

| No. | Type of Tool | Description | Examples |
|---|---|---|---|
| **1** | Learning management system (LMS) | A platform specifically designed for delivering and managing online courses. It often includes features such as course calendars, assignment submission, gradebook, and communication tools. | Blackboard, Moodle, Schoology |
| **2** | Video conferencing software | Allows educators and students to connect and interact in real-time through video and audio. | Zoom, Skype, Google Meet |
| **3** | Collaboration tools | Allows teams to work together online. It often includes features such as file sharing, task management, and real-time communication. | Google Docs, Asana, Trello |
| **4** | Content creation tools | Allows educators to create and share online content, such as videos, lectures, and presentations. | Adobe Creative Cloud, Prezi, Canva |
| **5** | Educational games and simulations | Can be used to create interactive and engaging learning experiences for students. | Kahoot, Quizlet, Duolingo |
| **6** | Assessment tools | Software that allows educators to create and grade tests, quizzes, and other assessments. | Blackboard, Moodle, Schoology |
| **7** | Virtual reality (VR) and augmented reality (AR) | Technology that allows users to experience and interact with virtual | - |

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|---|---|---|---|
| | | environments or digital objects in a real-world setting. VR and AR can be used to create immersive learning experiences and can be accessed through devices such as VR headsets and smartphones. | |
| **8** | Adaptive learning platforms | Software that uses artificial intelligence and machine learning to personalize the learning experience for each student. The platform can adjust the content and pacing of the material based on the student's progress and performance. | Knewton, MyLeaningPath |
| **9** | E-book and reading platforms | Software that allows students and educators to access and read digital books and other written materials. | Kindle, Nook, Google Play Books |
| **10** | Classroom management software | Tools that help educators manage and organize their classrooms, including features such as attendance tracking, behavior management, and scheduling. | ClassDojo, Remind |
| **11** | Online tutoring platforms | Allows students to connect with tutors and subject experts online for one-on-one or small group tutoring sessions. | Chegg, Tutor.com, Study.com |
| **12** | MOOCs (massive open online courses) | Online courses that are open to anyone and often have a large number of participants. They can be self-paced or have a set schedule, and may offer certificates of completion. | Coursera, edX, Khan Academy |
| **13** | Learning analytics and data tracking tools | Software that collects and analyzes data on student performance and engagement, often in real-time. This can help educators identify areas where students are struggling and provide targeted support. | Edmodo, GoFormative, Classcraft |
| **14** | Interactive whiteboard software | Allows educators to create interactive presentations and lessons that can be projected onto a whiteboard or screen. | Smart Notebook, Promethean ActivInspire, Google Jamboard |
| **15** | Language learning software | Provides interactive exercises and activities for learning a new language, often including features such as speech recognition and native speaker audio. | Rosetta Stone, Duolingo, Babbel |
| **16** | Online course authoring tools | Allows educators to create and design their own online courses, often with interactive elements such as quizzes and games. | Articulate |

Table 1 represents a sample of some common eLearning tools and their functions. There are many other tools available that can be used to facilitate the delivery and management of online courses and programs. The specific tools used will depend on the needs and goals of the educators and students, as well as the resources and infrastructure available.

eLearning platforms and tools can be used to facilitate a wide range of activities in the online learning environment, such as creating and sharing content, communicating with students and educators, assessing and evaluating student progress, and managing course administration. They can also provide a range of features and tools that can enhance the learning experience, such as interactive activities, multimedia resources, and real-time feedback.

Overall, eLearning platforms and tools play a critical role in the delivery and management of online courses and programs, and can help to ensure that students have a positive and effective learning experience.

### 2.6 Related Works on eLearning in Jordan

An article which presents a case study on the adoption of eLearning in higher education institutions in Jordan, based on a survey of faculty and students at four universities in Jordan is presented by almajali et al, [17]. The study found that eLearning was widely used in the institutions surveyed, but that there were significant barriers to its adoption, including a lack of infrastructure, inadequate training and support for faculty and students, and a lack of standardization and coordination among different eLearning programs.

eLearning has become an increasingly important part of higher education in recent years, with many institutions around the world adopting eLearning programs and resources to support student learning and engagement. A number of studies have been conducted to examine the adoption and impact of eLearning in higher education.

One study that has examined the adoption of eLearning in higher education is presented in [18], a case study of four universities in Jordan was discussed. The study found that eLearning was widely used in the institutions surveyed, but that there were significant barriers to its adoption, including a lack of infrastructure, inadequate training and support for faculty and students, and a lack of standardization and coordination among different eLearning programs. Another study that has looked at the adoption of eLearning in higher education is presented in [19], the paper presents an empirical study of four universities in Jordan. The study found that several factors were associated with the adoption of eLearning, including the availability of resources and infrastructure, the quality and relevance of eLearning materials, and the support and training provided to faculty and students.

Al-Hawari et al, in [20] conducted a study on eLearning readiness in higher education institutions in Jordan, using structural equation modeling to analyze the relationships between eLearning readiness and various factors, such as the availability of resources and infrastructure, the quality and relevance of eLearning materials, and the support and training provided to faculty and students. The study found that eLearning readiness was significantly influenced by these factors.

Other studies have focused on the impact of eLearning on student learning and engagement. For example, Chen, Kinshuk, and Tsai in [21] conducted a meta-analysis of studies on the effectiveness of eLearning in higher education and found that eLearning was generally effective in promoting student learning, with the greatest effects being observed for online discussions and multimedia learning materials.

The technological and pedagogical approaches used in eLearning are presented by the authors in [22], the challenges and opportunities presented by eLearning are presented in [16], and the impact of eLearning on the education sector [1]. The paper will also discuss the future direction of eLearning development, including the potential for the use of artificial intelligence and other emerging technologies [6].

Overall, the existing research suggests that eLearning can be an effective way to support student learning and engagement in higher education, but that its adoption and impact can be influenced by a variety of factors, including the availability of resources and infrastructure, the quality and relevance of eLearning materials, and the support and training provided to faculty and students.

According to the Global ELearning Market Report, the global eLearning market is expected to reach $398.15 billion by 2025, up from $176.12 billion in 2017. This represents a compound annual growth rate of 11.5%. A survey conducted by the Online Learning Consortium found that more than 6 million students in the United States were enrolled in fully online degree programs in 2020. This represents a significant increase from previous years, and suggests that eLearning is becoming an increasingly popular option for higher education [1].

A report by the National Center for Education Statistics found that, as of 2019, more than 50% of public school teachers in the United States had used digital tools to deliver instruction in the past year. This suggests that eLearning is becoming an increasingly common part of the K-12 education landscape [1], [11], [24]. A survey by the

EdTechXGlobal conference found that eLearning has a positive impact on retention rates, with 72% of respondents reporting that their eLearning programs had improved retention [24].

A report by the Distance Education and Training Council found that online students are more likely to complete their studies than students who take traditional in-person courses. In 2017, the completion rate for online students was 67%, compared to just 59% for in-person students [25]. A study by Alqahtani et al [26] found that eLearning was perceived as effective by both faculty and students at universities in Saudi Arabia, but that there were also a number of challenges to the implementation of eLearning, including a lack of institutional support and a lack of technical support.

A study by Al-Anazi et al. [27] found that eLearning was perceived as effective by both faculty and students at universities in Saudi Arabia, but that there were also a number of challenges to the implementation of eLearning, including a lack of institutional support and a lack of technical support.

## 3. Recommendations

There are several recommendations in which eLearning in Jordan's higher education sector could be improved. Some potential strategies include utilizing the usage of new technology in education [28], [29], [30], [31]. the following are some recommendations for the paper:

1. Developing and implementing clear policies and guidelines for eLearning: This could include establishing standards for the development and delivery of online courses, as well as setting expectations for student engagement and learning outcomes.
2. Providing training and support for teachers and students: This could include offering workshops and professional development opportunities for teachers on how to use technology in the classroom, as well as providing technical support for students as they navigate online learning platforms.
3. Improving infrastructure and technological resources: This could involve investing in better hardware and software, as well as upgrading internet connectivity and other technological infrastructure to support online learning.
4. Increasing funding and resources for eLearning: This could include providing financial support for the development and delivery of online courses, as well as investing in research and development to improve the quality of eLearning.
5. Establishing collaboration and partnerships between universities and other stakeholders: This could include working with government agencies, educational organizations, and industry partners to develop and implement eLearning initiatives.

## 4. Conclusion

eLearning has the potential to transform education and learning in Jordan by providing greater flexibility and convenience for learners, increasing access to education and training, and enabling the use of innovative technologies and approaches. However, it is important to carefully consider the unique needs and context of the higher education sector in Jordan in order to effectively implement and utilize eLearning. This may involve addressing issues such as infrastructure and connectivity, as well as ensuring that eLearning programs are of high quality and meet the needs of both students and educators. Additionally, it is important to continue to research and evaluate the impact and effectiveness of eLearning in order to continually improve and optimize the use of digital technologies in education. Generally, the development and innovation of eLearning has the potential to greatly enhance the education and learning experiences of students and educators in Jordan.

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