

Assessing the Use of e-Learning for Higher Education: A Cross-sectional Study of Nigerian Students’ Perspectives

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Abstract

The architecture of a learning system implies a heavy task for e-learning to be integrated into a complicated system that is flexible, time scalable, and capable of lasting, even when there are many diverse tools. Currently, higher education in Nigeria is experiencing a major transformation, considering increased accessibility. Therefore, this study aimed to identify the advantages and disadvantages of e-learning in higher education in Nigeria. A cross-sectional study design deploying both quantitative and qualitative approaches was used to randomly select samples from students of both the College of Education, Moro and the affiliated Ambrose Alli University, Ekpoma located on the Foreign Links Campus, Moro, Ife North, Osun State, Nigeria. The two groups of students were enrolled for the 2021/2022 academic year. A close-ended structured questionnaire was constructed to collect quantitative data while two interview questions were used to collect qualitative data. Descriptive statistics were used to analyse the data collected. Eighty-one percent of the students stated that e-learning provided scientific materials in an interesting way, while 80% responded that e-learning increased the possibility of contacts between students among themselves and between the students and their lecturers. Seventy three percent of the students indicated that due to increasing social isolation, they spent more time in front of the technical means for social interaction account and face to face with others. Seventy percent of the subjects indicated that there was a presence of electronic illiteracy among parents, which reduced their abilities to follow their children electronically. It is essential for potential e-learners to understand the differences between an e-learning classroom setting and a conventional classroom setting as there are advantages and disadvantages of e-learning in the two

environments that could probably influence their overall performances as students.

Keywords: E-learning, higher education, distance learning, learning management system

1. Introduction

Electronic Learning or e-learning is used to offer instructional programs to distant learners (Arkorful & Abaidoo, 2015). It is an on-line learning platform that emerges in a formal context and utilises a variety of multimedia technologies. Electronic hardware and software support this system either off line or on-line. A personal computer is a device meant for the purpose of providing tutoring in the area of computer-based instructions and electronic learning (Samsuri et al., 2014). Other information technologies deliver knowledge based on coaching, distance learning and instructions that are electronically delivered (Kattoua et al., 2016). They are based on technology for improving classroom engagement through positive environment, where students are deliberately engaged in on-line tutorials for completing a task assigned to them.

E-Learning ensures that students are completely involved as learning takes place together with texts, videos, sounds, collaborative sharing and interactive graphics. It may enhance the quality of teaching and learning (Abu-Naser et al., 2011). The incorporation of Information Technology as electronic learning has brought about the availability of high quality and cost-effective instruction to learners (Songkram, 2015). The implication is that e-learning is fund conserving for end users and it gives them the opportunities of combining their courses of studies with their jobs including social and family lives (Alameri et al., 2020). As such e-learning has a major advantage of knowledge acquisition everywhere, anywhere and at the learner's convenience. Furthermore, e-Learning caters for different types and varieties of learning approaches by utilising the interactive contents available on the internet and the accessibility of technology (Songkram et al., 2015). Electronic learning in institutions of higher learning can be described as instruction that is completely or partially realised by the use of web browsers. The versatility of on-line teaching and learning has brought about an increase in instruction by the use of browsers. Open and remote education is a part of education that gives participants the advantage of sandwiched, work-based learning which takes place anywhere and at any time (Gilbert, 2015).

On-line learning is beneficial to a number of learners and appears as more common in settings from elementary schools to secondary schools and into post-secondary education. The role of engagement in e-learning is important for effective learning as it is not merely student-student interaction that matters. Open distance learning involves different types of methods of delivery which are: instructor-subject, subject-subject, learner-instructor, learner-learner, instructor-instructor and learner-subject (El Mhouthi et al., 2018). Theories that encourage adoption of new technologies in the learning process are based on the postulation that students are active participants who pursue and create knowledge throughout a meaningful context. Different means of collaborative tools can be used for communication of the teaching content and cooperative instruction (Sarkar, 2012).

The structure of teaching methodology suggests a great burden for e-learning to be

incorporated into a complex and interconnected arrangement which is resilient, elastic and time ascendable, despite the availability of numerous apparatus and equipment. Bagarukayo, et al. (2014) observed that the learning space is left under the control of instructors and institutions using conventional Learning Management System (LMS) irrespective of any external tools. In particular, this leaves minimal space for learners to organise their digital learning space and to carry forward their activities.

Currently, higher education in Nigeria is experiencing a major transformation, considering increased accessibility. Knowledge is being created and implemented to the higher education setting with innovative ways to obtain and share information and changes in technology at a rapid rate. Educational institutions are providing on-line classes or courses using on-line elements and face to face course delivery. Universities deliver almost all courses using web-based technology to facilitate the delivery of course contents, assessments and assignments. Therefore, it becomes essential to understand the advantages and disadvantages of e-learning as perceived by the learners and further act on the areas requiring enhancement for a successful integration of on-line learning, based on the increasing importance of on-line learning programs. Hence, the present study aimed at identifying the advantages and disadvantages of e-learning among the Nigeria Certificate in Education (NCE) students in the College of Education, Foreign Links Campus (FLC), Moro, Ife North in Nigeria and students of Ambrose Alli University (AAU), Ekpoma, Edo State studying for their various degrees on the FLC Campus. The study further highlighted the barriers that students face in the use of e-learning, which were outlined in the form of disadvantages highlighted by students through their responses.

Considering the aims of the study, the following questions were answered in this study:

- 1). What are the advantages and disadvantages of using e-learning when implemented at the higher education level?
- 2). What are some of the major barriers identified by students in respect of e-learning?

2. Literature Review

Socio-cultural theory and constructivism are beneficial to explain the use of social networks in on-line learning, collaborative learning and the importance of social integration in on-line social learning environments. Chiu and Hew (2015) explained that children learn effectively in a social environment and create meaning using various engagements with others. A child is able to perform and solve more complicated tasks that he/she can handle autonomously with direction, support, and collaboration. Students can actively participate in the learning process if the classes are managed to support learning using discovery methodology. This type of learning offers students to inductively and independently provide conclusions, lead to the development of intellectual abilities and increase the quality of durability and knowledge.

2.1 Advantages of E-Learning

The implementation of e-learning in education has been favourable in multiple contexts. Previous studies presented several advantages associated by the implementation of e-learning

technologies into higher education (Raspopovic et al., 2017). However, e-learning is the ability to focus on the requirements of individual learners. For instance, focusing on the needs of individual learners can effectively deliver knowledge in this digital age as compared to educational needs of institutions or that of instructors (Huang & Chiu, 2018). Objectives can be achieved in the shortest time with least efforts through e-learning. When managing the e-learning environment, its effects on educational learning are observed in providing equal access to the information regardless of the location of users, their ethnicity, origins, races, and ages. The environment for e-learning also helps students or learners to rely on themselves so that instructors are no longer the solitary knowledge source rather they serve as guides and advisors (Joshua et al., 2016).

Numerous researches have revealed the benefits of e-learning from the perspectives of scholars (Gautam & Tiwari, 2016; Martinez & Cegarra-Navarro, 2015). As an example, e-learning is a work-based method of learning from a distance with less reasons to travel. Students can get better perceptions of the lecture room experiences by playing back tape recordings which allow two-way transfer of knowledge (Gautam & Tiwari, 2016). Students are enabled to show immediate reactions to exercises and projects. There is the necessity for teachers and instructors to accept improved and high technological mechanisms through the procedure of instruction. There is equally the perception that e-Learning improves interactivity between learners and instructors, consequently there are varieties of techniques in instructional technology (Aithal & Aithal, 2016). Part time and full-time students can actively participate in the on-line degree courses selected from any location or place, providing people who are traveling or relocating an easily accessible resource for experience and learning (Radu & Croitoru, 2011).

The integration and use of e-learning offer disabled people the opportunity for advancing their education from any location. In the process of e-learning, LMS has been widely used by various institutions of higher learning. It is further regarded as a platform that is used to manage the experiences of users while interacting with e-learning content. LMS in general perform three common functions which are presenting and systematising training content, creating assignments to test and solidifying knowledge to evaluate progress (Al-Samarraie et al., 2017). The LMS software is further used to publish, plan, deliver, and place self-placed, on-line courses. Murthy and Yamini, (2017) in their study examined how LMS is effective for students enrolled in higher educational institutions, along with their usage in the learning process. A number of advantages were outlined in this study. First is flexibility, as the use of LMS results in increased collaboration between faculty and students. It is further effective in enhancing the institutional practices which requires the involvement of learners. LMS is also effective in promoting centralised learning, easy upgrades, simplified learning processes at low cost and centralised learning (Murthy & Yamin, 2017).

Other important benefits as highlighted by Al-Handhali et al., (2020) include effectiveness in managing time, providing ease in the management of courses, availability of teachers, numerous facilities and ability to generate reports. It further provides timely reminder to users which include dates of deliveries, answering of questions and test dates. Aydin and Tirkes (2010) in their study analysed the usefulness of LMS and MOODLE, findings of the study

indicated that MOODLE, undoubtedly is one of the effective tools of LMS. Some of the identified advantages include its flexibility following the modules employed and help in teaching and learning through any style or environmental mode. Considering the modular design and its user interface, MOODLE is superior in rating of usability along with its competitors. However, considering the learning environment, MOODLE has been recognised as being easy to use due to variety of options available. Besides, increase in the user authentication options, easy installation process and maintenance of MOODLE help in increasing the frequency of usage (Aydin & Tirkes, 2010).

2.2 Disadvantages of E-Learning

Despite the various significant advantages of e-learning, students encounter several challenges which ultimately lead towards either limited or negative outcomes. Arkorful and Abaidoo, (2015) in their study outlined that e-learning, in certain cases is held through remoteness and contemplation resulting in lack of the interactions of students. In comparison with the contemporary mode of education, e-learning might result in being less effective due to the absence of face to face encounter with instructions or lecturers. Although in e-learning method, assessments are generally held on-line which reduces the possibility of restricting illegitimate activities such as cheating and plagiarism (Arkorful & Abaidoo, 2015). The absence of essential personal interactions is the most noticeable drawback of e-learning, not only among peer learners, but also between instructors and learners (Al Samarraie et al., 2017).

There is a scarcity of community in the on-line learning environment as student-student engagement is much less of a concern when compared with student-lecturer interaction. Gilbert (2015) highlighted that most of the students wish to work autonomously to avoid the need to interact with their classmates. Cultural barrier is another important disadvantage of introducing an on-line course. Aparicio, et al. (2016) in their study evaluated the influence of cultural characteristics which includes individualism and collectivism in determining the perceived success of e-learning. Findings of the study indicated a significant influence of individualism and collectivism on organisational and individual impacts.

Technology is a platform that can be easily acquired for granted when it is engaged into daily life, but it is not widely used because of the lack of monetary benefits for achieving access. The global knowledge available on the internet is led by increasing the proportion of computers and other electronic devices to students (Ahmed & Elaraby, 2014). Another disadvantage is maintaining motivation in an on-line course which learners experience. Students who lack self-motivation and independence had reduced success rates as compared to their counterparts (Talebian, et al., 2014). Learners that lack self-regulation have the tendency not to assign sufficient time for completing assignments; therefore, switching in poor quality work or late assignments. Above all, successful students have stronger beliefs that they will succeed better with technological skills and access; higher self-responsibility and higher self-organisation skills (Islam et al., 2015). Students must be able to assess the motivating factors to continue the momentum throughout the duration of their courses of study. Insufficient educational encouragement can make learners to lose focus of their

intentions, abandon their studies and eventually drop out from school (Raspopovic et al., 2017). Therefore, it is pertinent to determine the success of an individual to undertake an on-line course by understanding the learning styles and the behaviours of learners.

3. Methodology

3.1 Research Design

A cross-sectional study design employing both the quantitative and qualitative research approaches was adopted to identify the advantages and disadvantages of e-learning in higher education. Institutions of higher learning were the primary focus in this study while Nigeria was targeted as the preferred study setting.

3.2 Population and Sampling

Students of higher institutions in Nigeria have been considered as population for this study and thus, the students enrolled in the College of Education, Foreign Links Campus (FLC), Moro, Ife North, Osun State, for Nigeria Certificate in Education (NCE) and students registered for the degree program of Ambrose Alli University Ekpoma, Edo State offered by the institution who were in the second semester of the academic year 2021/2022 were considered as study population.

The NCE students for the study were in fewer numbers because willing NCE graduates enroll directly to the various degree programs available on the campus after their 3-year courses of study. Students in other semesters and academic years were excluded from the inclusion criteria. The non-teaching staff were not considered as a part of this study. Based on the sample size calculation and number of students studying in second semester, students were randomly selected as samples for this research. Ninety-three first degree students made up of 46 male and 47 female students were selected. For the NCE program, 7 students, made up of 4 male and 3 female students were chosen making a total of 100 students consisting of 50 males and 50 females.

3.3 Instruments for Data Collection

An Advantages and Disadvantages of e-Learning Questionnaire (ADEQ), constructed by the researcher, was used to collect information from the study participants. The questionnaire comprised of two sections. The first section presented the demographic information of participants about age, gender, department, program, place of residence, nationality and social status. Section B consisted of 30, close ended, four Likert scale format items, the ratings were 'Strongly Agree-SA', 'Agree-A', 'Strongly Disagree-SD' and 'Disagree-D. The second part was further subdivided into two sections (1) advantages and (2) disadvantages of e-Learning. The first sub section consisted of 18 items while the second sub section consisted of 16 items. The respondents were asked two questions in an interview by the researcher. The first and second questions were to collect further information on the advantages and disadvantages of e-Learning respectively.

3.4 Procedure for Data Collection

Prior to the data collection, the researcher obtained permission from the management of Foreign Links Campus, Moro, Ife North to research the students. The nature and objectives of the study were explained. After obtaining permission, the students who wished to participate in the study were approached for their agreement. All the students were given the assurance that their participation and personal information would be kept confidential. The close ended structured questionnaire (ADEQ) was used by the researcher to collect data from the students. The two interview questions were also posed to the students to collect verbal information that were recorded by the researcher.

3.5 Validity and Reliability

The over-all validity of the research instrument was ensured by following the three stages of developing an instrument that accurately measures the variables of interest which are planning, construction and validation. In the planning stage, the researcher identified the purpose, specified the content areas and identified the target group. The researcher carried out the construction by identifying the objectives of the instrument and the content areas, the items were then written out making sure that they adequately reflected the processes and dimensions of the objectives of the instruments. They were then reviewed.

The questionnaire was evaluated by experts in the various departments in Foreign Links Campus (FLC) before using it for data collection. Corrections were made, considering the suggestions of experts to ensure its validity. On the other hand, Cronbach alpha was used to measure the reliability of the questionnaire items. In this regard, 15 students were included in the pilot study to check the reliability of the questionnaire. The participants included in the pilot study were excluded from the final sample. After conducting the pilot study, Cronbach alpha confirmed the reliability of the study as the coefficient obtained was 0.8 which exceeded the standard benchmark of 0.7 to show high reliability of the questionnaire items according to Taber (2017).

3.6 Method of Data Analysis

For the quantitative aspect of the study and in an attempt to answer the study's research questions, each of the sets of quantitative data collected was analysed using descriptive statistics and deploying the Statistical Package for Social Sciences (SPSS) version 20.0. The data were input one set after the other into the computer system and the outputs recorded in each case. The raw scores consisting of the frequencies were converted to percentages to put all the scores on a regular scale.

For the qualitative aspect of the study, the responses of the participants to interview questions were collated by the researcher and the information gathered were recorded.

4. Results

4.1 Quantitative Results

The demographic characteristics of the study participants are shown in Table 1. The table

reveals an equal proportion of students based on gender with males accounting for 50% and the female gender accounting for 50% of the participants. Most of the study samples were in the age group of 20-22 years representing 43%), while 24% of the participants fell into the age group of 23–25 years. Fifteen percent of the participants were in the 17 to 19 age-group, while 8% fell into the age group of 26-28 years. Ten percent were above 28 years of age. A greater percentage, 69%, of the participants were enrolled in the Department of Mathematics, while 39% were enrolled in the Computer Science Department. As shown in the table, 93% of the study participants were pursuing Degree programs, while the remaining 7% were enrolled for the National Certificate in Education (NCE) program. In relation to the nationality of the participants, 30% of the students were non-Nigerian while the greater percentage of 70 percentage points were Nigerians.

Table 1. Demographics.

Demographic Variables	Frequency	Percentage
Gender		
Male	50	50%
Female	50	50%
Age		
17-19 years	15	15%
20-22 years	43	43%
23-25 years	24	24%
26-28 years	8	8%
Above 28 years	10	10%
Department		
Mathematics	69	69%
Computer Science	31	31%
Program		
Degree	93	93%
NCE	7	7%
Nationality		
Nigerian	70	70%
Non-Nigerian	30	30%

Social Status		
Married	18	18%
Not Married	82	82%
Widowed	0	0%
Working Status		
Working	23	23%
Not Working	77	77%

Results relating to the first sub-section of Section B of the ADEQ instrument are shown in Tables 1. As revealed by the percentage points of the various levels of agreement by the participants to the statements, the majority of the study participants agreed that the use of e-learning in higher education has a number of advantages. While 81% and 15% respectively of the participants strongly agreed and agreed that e-learning provides scientific materials in an interesting way, 76% and 16% of the participants respectively strongly agreed and agreed that the use of e-learning in higher education enables students' self-study through digital means such as CDs or the Internet. Similarly, 78% of the students responded that e-learning enables student-teacher communication by e-mail, while 75% and 68% respectively responded that e-learning increases students' motivation as well as raises achievement levels.

Table 2. Advantages of e-Learning.*

Items	Strongly Agree %	Agree %	Disagree %
Raises the level of students' culture and skills.	77	16	7
Provides scientific materials in an interesting way.	81	15	4
Helps students' retention, provides feedback.	71	21	8
Increases students' motivation.	75	20	5
Encourages students' participation.	72	21	7
Raises the level of students' achievements.	68	19	13
Helps increase student-teacher interaction.	72	20	8
Increases student-student interactions.	68	20	12
Increases students' learning capacity.	66	22	12
Enriches the curriculum.	69	17	14

Enables students' self-study through digital means such as CDs or the internet.	76	16	8
Helps students-teacher communication by e-Mail anytime and anywhere.	78	13	9
Considers individual differences between students' levels.	57	28	15

*Responses to the 'Strongly Disagreed' option recorded a frequency of 0 in all cases and were, as a result, not reflected in the Table.

Results relating to the Disadvantages sub-section of Section B of the ADEQ instrument are shown in Table 3. The table shows that the study participants agree that there are drawbacks to the use of e-learning amongst the two groups of NCE students and undergraduates of Ambrose Alli University at FLC, Moro, Ife North, Osun State, Nigeria. Seventy-three percent and 17% of the study participants respectively strongly agreed and agreed that due to increasing social isolation, they spend more time in front of the technological devices at the expense of face to face social interaction with others. Sixty eight percent of the participants revealed that the application of e-learning required a certain extent of qualified users to deal with technological developments used in this type of education.

Table 3. Disadvantages of e-Learning.*

Item	Strongly Agree %	Agree %	Disagree %
Radiation effects on students.	66	25	9
Technical failures of devices.	66	25	9
Increases students' social isolation.	73	17	10
Difficulty in engaging in extracurricular activities.	59	24	17
Focus on technology rather than content.	64	18	18
Increases students' burdens and responsibilities.	50	28	22
Limits teachers' roles of guiding students which reduces their ethics /morals.	57	23	20
Greater focus on the cognitive and very little on the affective aspects of education.	59	27	14

Application requires certain level of technological know-how.	68	24	8
Initial high cost of installation.	60	28	12
Another person can play the intended role of the learner.	60	26	14
Predominantly focuses on the senses of hearing and vision.	60	19	21

*Responses to the ‘Strongly Disagreed’ option recorded a frequency of 0 in all cases and were, as a result, not reflected in the Table.

4.2 Qualitative Results

An analysis of the one-on-one interview sessions with the participants using the two interview questions prepared for the research revealed the following advantages and disadvantages in respect of the use of e-learning in higher education in Nigeria:

4.2.1 Advantages

The use of e-learning is capable of helping students and other users to:

- Avoid carrying heavy books around and be able to develop individual skills.
- Communicate with large numbers of people easily and from the comfort of their homes or offices.
- Increase the level of education through on-line courses, dialogue sessions and formal webinars.
- Have resources available anytime and anywhere, also enables on-line seminar participation.

4.2.2 Disadvantages

E-Learning has the demerits of:

- Being difficult for the beginner because technical training and expensive equipment are required.
- In availability of network and electric power supplies at times.
- Reducing teachers’ interest in the material and necessity to upgrade devices causing delays.
- Difficult framework for display of materials to absorb sometimes e.g. Power Point presentation.

5. Discussion of Findings

Students are progressively achieving access to the far-reaching environment of on-line learning, specifically in the institutions of higher learning. The strategy to increase the use of technology in higher education setting across Nigeria has consequently led to increased accessibility of students to on-line courses in a range of courses of study. The competitive atmosphere for admission to institutions of higher learning is another potential factor that has contributed to the increase of on-line courses being offered at the higher education setting. Many of the university level courses offered to students are available in an on-line setting. Therefore, the study has identified the advantages and disadvantages of e-learning in supporting e-learners to become successful students using interactive on-line platforms.

Findings revealed that there were commonalities among the students' responses, which links to common attributes of effective learners while the students are unique in their approach to on-line learning. It was observed that perceptions of students toward the advantages and disadvantages of the e-learning for higher education differ very widely.

The findings emphasised the aspects of the e-Learning courses that potential on-line learners should take into account when realising their individual preferences. Based on these findings, it is essential for potential e-Learners to understand the differences between an e-Learning classroom setting and the conventional classroom setting as there are both advantages and disadvantages of e-Learning to both environments that can probably influence their overall performances as students (Rashid et al., 2016). Similarly, it has been found that a wide range of multimedia inputs allow learners to seek knowledge that would associate to their personal and prior experiences and involve them in interdisciplinary training. E-Learning can be a potential platform in providing a number of delivery methods for different types of learners, when compared to conventional classrooms. Furthermore, e-Learning is an influential tool as it can provide unique learning styles and improve academic performances of students. Learners may be exposed to organised instructions because of the availability of the subject, drilling and training in multimedia. They may also enthusiastically take part in trainings through on-line training platforms for additional knowledge, experience and expertise by self-study (Dumford & Miller, 2018).

Among the study samples, lack of face to face interaction in their studies was the major disadvantage of e-Learning, while collaborative learning among peers is essential for the students as it helps them to improve their knowledge and exchange ideas. Students by nature are social learners who often prefer to learn and interact with their peers in groups. The tendency to surf social web extensively such as Twitter and Facebook, download games, and watch movies on YouTube was considered as another disadvantage of e-Learning to students. Bari et al., (2018) observed that social web excessively can affect the brain to shrink and the condition may lead to decline in concentration.

Learning platforms enhance knowledge by various means among which are to create, manage and deliver e-Learning courses, assessment and observation of the actions of learners and their instructors. According to Alghizzawi et al., (2019), electronic learning platforms like LMS enable the coexistence of collaborative interactions through the utilisation of variety of

programs and equally enhance discussions involving enthusiastic contribution of learners. In relation to the assessment methods employed in e-Learning systems, Rahrouh et al. (2018) added that LMS in general has been effective, usable, efficient, manageable, and reliable. The respondents further showed positive attitudes towards the use of LMS and its effectiveness in the assessment of students. Yilmaz, (2017) identified some of the commonly used techniques in the on-line assessment of students in virtual learning. According to the study, the commonly used methods include multiple choice questions, open ended questions, short answer questions, true and false statements and related exercises. The researchers further examined that on-line examinations include assignments and gradings. Upon examining the opinion of lecturers and alternative techniques of students' performances and assessments, it was observed that majority of the lecturers follow latest electronic development trends in evaluating and assessing the performances of students. In addition, the respondents further favoured the use of student-centered evaluation techniques (Yilmaz, 2017).

6. Limitations and Further Studies

A primary limitation to the generalization of the findings of this study might be the restriction in the selection of the sample to a single institutional setting, which might have entailed challenges of interaction effects as well as accounted for the small sample size. Future studies can improve upon the generalizability by extending the capture of the population. Notwithstanding, the study's sample is representative of a larger population to which the results can be generalized.

Another challenge might be the research design, restricting data collection to a given point in time. Further research can extend the data collection so as to capture the perspectives of the students over time.

7. Conclusion

E-Learning is an effective tool to transfer knowledge and it has the potential for overtaking the conventional teaching method. Training in e-Learning usage helps learners and instructors in educational environments. The needs of students are becoming priorities of instructors and thus, universities and colleges are implementing e-Learning system in their own training programs. Through the study findings, it has been discovered that e-Learning has been advantageous to its users in many ways. One of the most dominant characteristics of e-Learning is that it ensures ease of communication between teachers and students, it also contributes to the development of skills of students. It further contributes in providing scientific materials to students in an interesting manner. In contrast to this, e-Learning can develop negative influences on students as it promotes social isolation due to increase in the time they spend on the screen.

The conclusion of the study is that students prefer to use e-Learning since it provides chances to enhance their learning and increase their abilities and capabilities. On the contrary, the support of e-Learning is not adequate in assuring the advantages of effective learning of students due to lack of social interactions with their fellow students and mentors during the academic year. In particular, there is an actual need for a well-established e-Learning

environment, which learners and instructors can rely on. E-learning will become more popular to make the users feel secured and comfortable with the complement of instructors and mentors. Future studies are required on a larger scale, including additional on-line courses for students to better access the advantages, disadvantages and useful strategies regarding the use of e-Learning in order to help students to be more successful in their courses of study.

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Data Availability Statement

The data that support the findings of this study are available on request.

Competing Interests Statement

The authors declare that there are no competing or potential conflicts of interest.

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