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The effects of E-learning Quality Standards Implementation on teachers' performance during COVID- 19

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Abstract

The study aimed to identify the effects of e-learning quality standards implementation on teachers' performance during COVID-19 inside The Green Line. The population of the study will include all secondary school principals inside The Green Line whose numbers will be obtained from the official records. The sample of the study will be selected using convenient random sampling procedures from the populations of the study. A questionnaire will be employed as the main tool for the data collection. The results of the study showed that there is a positive effect of e-learning quality standards implementation on teachers' performance during COVID-19 inside The Green Line. In light of the results, recommendations provided.

Key Word: Implementation, E-learning, Quality Standards, The Green Line.

Introduction

The educational field is one of the fields that witnessed a variety of changes that drew upon the developments worldwide over the past ten years. One of these changes was the introduction of e-learning to the learning process, especially after the world outbreak of Coronavirus at the end of 2019 starting from China. As the rapid spread of this virus affected the educational process, it become necessary to adopt e-learning in order to achieve continuity of the teaching and learning process. At the same time, adopting e-learning during this time affected teachers' performance which is considered an important component to achieve the objectives of the teaching and learning process.

COVID-19 has led to the closure of schools all over the world in March 2020 and replacing traditional learning with e-learning using new teaching methods and modern technologies, in order to prevent the spread of the virus (Malays, 2020).

As acknowledged by Ali, Hossain and Ahmed (2018) learning is the process of acquiring knowledge and skills for a set of purposes. Learning started to change over the years, as technology has been introduced to the teaching-learning process, and students started to use their phones, tabs, and laptops in learning. In today's world, learning cannot be confined to traditional methods; since the closure forced by the outbreak of COVID-19, where e-learning has turned into a significant alternative for traditional methods of teaching, and where the teachers and students had to change their behaviors, teaching and learning styles, assessment methods, etc. (Gherhes, Stoian, Fărcasiu & Stanici, 2021).

E-learning as defined by Al-Qeaq and Al-Hadmy (2021) is the process of presenting the learning content using electronic multimedia on the computer and its networks to the learner in a way that allows him to interact actively with this content, with the teacher and with his peers, whether synchronously or asynchronously, as well as the teacher's ability to manage this learning content through these media.

While Basar, Mansor, Jamaludin and Alias (2021) define it as a form of pedagogy delivered through digital technology and a teacher-students process that involves a set of digital mediums, including Whatsapp, Zoom, Google Classroom, etc. where the teaching activities, assignments, and assessment are done through different multimedia. This type of learning is considered the best medium to ensure the continuity of students' learning during the COVID-19 pandemic.

e-learning is any form of pedagogy delivered via digital technology, and it is a teaching-learning process between the teacher and the students that is carried out through a set of digital mediums, including 'Whatsapp, Zoom, Google Classroom, etc. where the different teaching and assessment activities are done through them. This type of learning is considered the best medium to ensure the continuity of students' learning during the COVID-19 pandemic.

Obeidat, Obeidat and Al-Shalabi (2020) classify e-learning types into two types the first one is simultaneous delivery or synchronous learning, the teacher and students in this type of learning communicate and interact directly at any time, and can be employed for distance learning and some training courses. The other type is asynchronous delivery, where the teacher makes the educational content available on videotapes, and the contents are transferred via computer or any other means. In this type, the student receives the content later as suitable and feasible for him.

With regard to e-learning quality standards, Haya (2019) classified them to educational standards and technical standards. As for the educational standards they include designing an integrated e-learning system, observing the quality standards in the different stages of program design and e-syllabus, managing e-learning programs in accordance with quality standards to achieve the degree awarded, supporting self-learning, and reviewing the integrity of evaluation procedures used in e-learning programs. With respect to technical standards, they include standards of images, video, animation, etc., interactive links, navigation methods, website interfaces design, guidance, and search. These standards are considered one of the important factors that must be met in the quality standards of e-learning, through technical support and training in the use of technological tools, and the system should be suitable for the learners' purposes, taking into account the ease of use of the system.

Al-Najdy (2012) confirms the importance of implementing the above-mentioned standards in e-learning in order to enhance confidence in the efficiency of the system and its academic credibility, protect learners from enrolling in lower-level education institutions, and facilitate the learners' transfer movement between the education institutions.

Employing e-learning in the educational process has a set of objectives that the educational institutions aim to achieve including improving the levels of education, learning, and creativity; minimizing the cost of education; creating an interactive educational environment by using new technologies and diversifying the sources of information; improving the relationship between parents and school, school and the surrounding environment; imparting teachers with the technical skills required to use the modern educational technology;

and providing education for different age groups taking into account individual differences (Haya, 2019).

Furthermore, e-learning has the potential to expand the learning opportunities, and develop new pedagogical methods, which makes the learning process more reliable and efficient, and less stressful for teachers and students (Butnaru, Nita, Anichiti & Brinza, 2021).

Teachers play a vital role in achieving the educational objectives, as they are viewed as the backbone of the educational activities, and the success of these activities and even their failure highly depends on teachers' performance. Thus, teachers' performance is emphatic for the improvement of education, as it is the ability to combine skillfully the right behaviors in order to achieve the educational goals and objectives (Amin, Shah, Ayaz & Atta, 2013).

Teachers' performance is defined as a teacher's set of behaviors and practices, which express the professional, academic and cultural responsibilities he must perform in his work's field, inside or outside the school, and that are integrated together as a driving force for students' learning processes, as the school's main message (Al-Sagear, 2008).

Moreover, Al-Mousa (2015) defines teachers' performance as the verbal and skillful behavior that is based on a specific cognitive and emotional background, and this performance is usually at a certain level, showing the teacher's ability or inability to perform a certain task.

Teachers' performance includes a set of components that Subhi (2016) summarized as follow:

- Work components: Including tasks, duties, responsibilities, and the rules related to the nature of teachers' work including the challenges they may face and the ability to carry out the work efficiently and effectively.
- Environment: This includes both internal factors including the organizational structure, its goals, and resources, and external factors including political, economic, social, and technical factors.
- Competencies, refer to the knowledge, skills, values, and attitudes of teachers, which represent the basic characteristics that produce effective performance.

The importance of teachers' performance stems from its rule in achieving the educational objectives, and in achieving teachers' individual goals. Additionally, performance indicators contribute to the identification of the strengths of teachers' performance in order to enhance them, and the weaknesses in order to define the developmental needs to improve performance. Also, it defines the institution's competitiveness and competence to invest and employ teachers' abilities in order to improve educational outcomes (Nawaz & Al-Yahyawy, 2020).

Furthermore, teachers' performance includes four domains, the first is teaching performance which is defined as the teacher's ability to implement the needed teaching practices in the classroom in order to achieve the educational and learning objectives. The second is self and professional growth which includes the practices adopted by teachers in order to develop their knowledge and professional skills in cooperation with other teachers and through participation in the different professional development opportunities and experiences. The third one is persistence and problem solving which refers to teachers' ability to implement the necessary practices to define the professional issues they face and to work on finding the appropriate solutions. Finally, professional relations are the practices that reflect teachers'

ability to create and maintain positive professional relations with students, teachers, supervisors, and principals to help achieve educational goals (Al-Talhy, 2019).

Many studies addressed e-learning and teacher performance, for example, Ozgenel and Mert (2019) addressed the role of teacher performance in school effectiveness in Turkey. The study sample consisted of (426) teachers who responded to both School Effectiveness Scale and Teacher Performance Evaluation Scale. The results of this study showed significant differences in teachers' perceptions of school effectiveness in light of the educational background, in favor of undergraduate teachers; in light of school level, in favor of Primary and secondary school teachers, while no significant differences in teachers' perceptions of school effectiveness were shown in the light of gender and seniority. In respect of teachers' performance, there were significant differences in light of gender, in favor of females; in light of school level, in favor of primary and secondary school teachers' performances, while teachers' performances do not show significant differences according to their educational background and seniority. A moderate and positive relationship was found between teachers 'performances and school effectiveness, and teachers' performances positively affect the effectiveness of the school.

In Philippines, Haramain (2019) aimed to determine the different undesirable factors affecting the performance level of public secondary school teachers in as perceived by the teachers and school administrators. The questionnaires had been answered by (1,000) respondents including (850) teachers and (150) school administrators. The findings of the study showed that the degree of effect of the different undesirable factors such as person-related, school-related, student-related and community-related factors on teachers' performance level was high by teachers' and administrators' point of view. The study also showed a significant difference between the perceptions of administrators and teachers on the degree of effect of the different undesirable factors affecting the performance level of public secondary school teachers, in favor of administrators.

In order to investigate e-learning's obstacles in the egyption secondary schools in light of the Corona pandemic, Ahmad (2021) distributed a questionnaire on (250) secondary school students and (130) teachers selected randomly. The results defined a set of obstacles that face e-learning from students' and teachers' perspectives, including lack of interaction and face-to-face contact between teacher and student, ignoring social and recreation activities, increase in Internet subscription fees, and that e-learning does not take into account individual differences between students.

While Al-Qeaq and Al-Hadmy (2021) conducted a study in Palestine in order to identify the obstacles that school teachers faced within the e-learning process during the Coronavirus pandemic. It also aimed at pinpointing the tools that teachers used to follow up students' homework during the pandemic. A representative sample consisting of (289) teachers working at private and governmental schools in the Directorate of education in Jerusalem suburbs was selected and asked to fill out a questionnaire. The result indicated that the obstacles that teachers faced in e-learning during the Coronavirus pandemic were moderate. It also indicated that teachers mostly depended on social media such as Facebook and WhatsApp to keep in touch with students and that they mostly depended on the tools that they themselves developed more than the ones that are recommended by the Ministry of Education.

In light of the previous studies, it can be noted that there is an interest in e-learning as it's an essential teaching method nowadays, especially after the outbreak of coronavirus. At the same time, there was a lack of interest -To the researchers' limited knowledge- in addressing

the effects of e-learning quality standards implementation on teachers' performance during COVID-19. Thus, the current study came in an attempt to study this topic and provide researchers with additional information which may serve the learning process, especially in light of the current changes taking place in the educational field, which require teachers to make a change in their teaching performance to serve the current education trends that has made e-learning an essential method of the learning process.

The problem of the Study

e-learning has become a must during the break though of COVID-19 Pandemic as it was necessary to turn out to social physical distance due to such disease. It has become evident that there is a need to provide students with high-quality e-learning experiences; something that needs to develop e-learning experience in light of the best standards related to developing the material provided on e-learning platforms.

Nonetheless, while reviewing previous studies, the researchers found that educators did not pay much attention to using will defined standards that can be employed for creating e-learning platforms. This implies that there is a serious gap in educational previous literature as the quality of e-learning platforms and their effect on performance has not been fully addressed. Therefore, this study came to fill this gap by the effects of E-learning quality standards implementation on teachers' performance during COVID- 19.

The Questions of the Study

What is the effect of e-learning quality standards implementation on secondary school teachers' performance during COVID-19 inside The Green Line?

Definitions

Teachers' performance

The verbal and skillful behavior that is based on a specific cognitive and emotional background, and this performance is usually at a certain level, showing the teacher's ability or inability to perform a certain task (Al-Mousa, 2015). In this study, teachers' performance is defined as all the activities the teacher performs in the educational setting In this study, teachers' performance is defined.

E-learning

The process of presenting the learning content using electronic multimedia on the computer and its networks to the learner in a way that allows him to interact actively with this content, with the teacher and with his peers, whether synchronously or asynchronously, as well as the teacher's ability to manage this learning content through these media (Al-Qeaq & Al-Hadmy, 2021). In this study, e-learning is defined as the use of different multimedia for delivering the learning content.

COVID-19:

A species of virus that causes the disease to individuals, as a result of infections it causes to the respiratory system, which ranges in severity from common colds to severe illness (Al-Harbi and Al-Subhi, 2021).

Methods and Procedures

Method of the Study

In order to achieve the study objectives, descriptive-analytical design.

Population and Sample of the Study

The study population consisted of all secondary school teachers inside The Green Line who work in the second semester for the educational year 2021/2022. While the study sample consisted of (106) school teachers selected using the convenient random sampling method, as the researchers administrated the instrument to all teachers who expressed their willingness to participate in the study.

Instruments of the Study

To achieve the objectives of the study, the researchers developed two questionnaires as follow:

E-learning Quality Standards Questionnaire

The researchers adopted the questionnaire developed by Sumi and Kabir (2021) which contains (25) items.

Validity

To check content validity, a jury of (4) specialized members of faculty members in educational administration and fundamentals were asked to give their remarks about the items' suitability for the purpose of the study, the authenticity of its phrasing, clarity, and their appropriateness to the domain they belong to. (80%) of the proposed amendments by the juries were taken into consideration. The questionnaire in its final format consisted of (16) items distributed on (5) domains: Perceived quality, responsiveness, reliability, website design, and learning content.

Construct Validity

To obtain construct validity, correlation coefficients between the items and the total score were calculated through a pilot sample consisted of (30) teachers. The correlation value indicates validity significance for each item since it indicates the correlation value between the item and the total score from one hand and between each domain and the total score on the other hand. The correlation coefficient of the items and the total score ranged between (0.39-0.76), and with the domain (0.39-0.85) as shown in the following table. This implies that all the correlation coefficients were expected and significant, and for that none of the scale items have been deleted.

Reliability

To verify the instrument reliability, test-retest method was used by administrating the instrument and re-administrating it after two weeks on a sample consisting of (30) teachers selected form the same population and out of the original sample. Pearson's correlation factor was calculated between their responses in both times. Then, Pearson Correlation was calculated between their scores on the scale.

Furthermore, Cronbach Alpha Coefficient for internal consistency reliabilities was calculated. The results showed that internal consistency coefficient ranged between (0.82-0.91), while test-retest ranged between (0.86-0.90).

Teachers' Performance Questionnaire

The researchers adopted the questionnaire developed by Al-Sahli (2012) which contains (49) items distributed into three domains: planning (15 items), implementation (21 items), and assessment (13 items).

Validity

To check content validity, a jury of (4) specialized members of faculty members in educational administration and fundamentals were asked to give their remarks about the items' suitability for the purpose of the study, the authenticity of its phrasing, clarity, and their appropriateness to the domain they belong to. (80%) of the proposed amendments by the juries were taken into consideration. The questionnaire in its final format consisted of (24) items distributed on (3) domains: planning (6 items), implementation (9 items), and assessment (9 items).

Construct Validity

To obtain construct validity, correlation coefficients between the items and the total score were calculated through a pilot sample consisted of (30) teachers. The correlation value indicates validity significance for each item since it indicates the correlation value between the item and the total score from one hand and between each domain and the total score on the other hand. The correlation coefficient of the items and the total score ranged between (0.42-0.79), and with the domain (0.40-0.88) as shown in the following table.

Reliability

To verify the instrument reliability, test-retest method was used by administrating the instrument and re-administrating it after two weeks on a sample consisting of (30) teachers selected form the same population and out of the original sample. Pearson's correlation factor was calculated between their responses in both times. Then, Pearson Correlation was calculated between their scores on the scale.

Furthermore, Cronbach Alpha Coefficient for internal consistency reliabilities was calculated. The results showed that the internal consistency coefficient ranged between (0.71-0.80), while the test-retest ranged between (0.81-0.85).

Results of the Study and Discussion

What is the effect of e-learning quality standards implementation on secondary school teachers' performance during COVID-19 inside The Green Line?

To answer this question, correlation coefficient was computed using Pearson correlation analysis as shown in table (1).

As seen in table (1), there is a statistically significant correlation between the domains of the independent variable (The standards of e-learning) on the total dependent variable (Teacher performance). As indicated in the above table, the correlation between perceived quality and teachers' performance was high ($r = 0.377$, $p = 0.000$). Furthermore, the correlation between responsiveness and teachers' performance was also high ($r = 0.837$, $p = 0.000$), which is a significant value. As for reliability, the value of the correlation between this domain and teachers' performance was ($r = 0.860$, $p = 0.000$). as for the correlation between website design and teachers' performance, the correlation value was ($r = 0.497$, $p = 0.000$), which is significant. Finally, the value of Pearson correlation between learning content and teachers' performance was ($r = 0.564$, $p = 0.000$) which is also significant. As for the total Pearson correlation value for the independent variable (e-learning quality standards) and the dependent variable (Teachers' performance) this was ($r = 0.913$, $p = 0.000$) which is significant. These results indicate that there is a strong relationship between the total independent variable (e-learning quality standards) and its individual domains (Perceived quality, responsiveness, reliability, website design, learning content) and the dependent variable (Teachers' performance). This result can be explained by the fact that as long as website quality standards are high, this has a

positive impact on teachers' performance as they can employ the website easily and more effectively since being able to navigate the website makes their work smoother. Furthermore, e-learning quality standards are a reflection of to how extent to teachers can employ the website in presenting the learning materials to students, give feedback, keep contact with students, download homework, upload different learning tasks for students and this mirrors his ability to capitalize the many different opportunities provided by the e-learning website.

Table (1): *Pearson Correlations Coefficient*

Domains of Independent Variable	Pearson Correlation Sig. (2-tailed)	Dependent Variable
Perceived Quality	.377(**) .000 106	Teachers' Performance
Responsiveness	.837(**) .000 106	
Reliability	.860(**) .000 106	
Website Design	.497(**) .000 106	
Learning Content	.564(**) .000 106	
E-learning Quality Standards	.913(**) .000 106	

** Correlation is significant at the 0.01 level (2-tailed).

To identify the contribution of each domain of the independent variable (Perceived quality, responsiveness, reliability, website design, learning content) on the dependent variable (Teachers' performance), structural equation modeling (SEM) was employed as seen in figure (1).

As seen in figure (1), each domain of the independent variable were able to contribute relatively in the dependent variable (Teachers' performance) as these domains accounted for the variance in teachers' performance. This result emphasizes the significant impact of e-learning quality standards on teachers' performance and how it can contribute in promoting teacher performance if these quality standards were high. As such, this result can be explained by stating that it is of great importance that teachers feel comfortable when using e-learning websites; something that can make them more effective teachers since they are more able to provide rich learning experiences for their students.

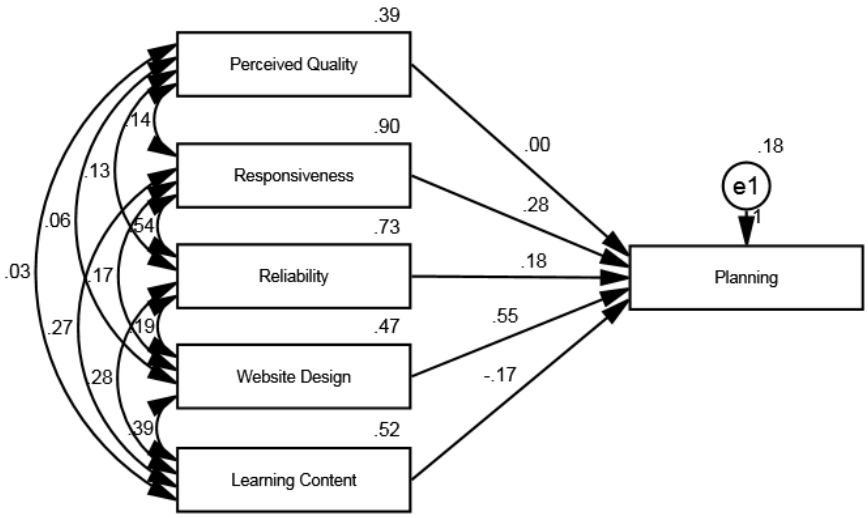

Figure (1)*: Path Analysis Using Structural Equation Modeling (SEM)*

Recommendations

In light of the results, the study recommends to:

- Working on increasing the quality standards of e-learning website for their apparent impact on teachers and students related variables.
- Developing a set of standards to be employed when designing e-learning experiences for students.
- Future research may examine e-learning quality standards from the perceptions of other populations such as school principals and educational supervisors.

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