Chapter 46: The Benefit of Online Learning Using Educational Technology Platforms as Useful Tool for Teachers Professional Development

Emad Alharbi

Kansas State University, Manhattan, KS 66506, USA.

Abstract: Online learning is increasingly becoming the leading form of learning in the world. It fits in many fields, such as business, health, leisure, entertainment and education. Transformation of traditional methods through the influence of information technology has enhanced the operational flexibility along with the comparative increase in the efficacy of their projected outcomes. With no need of any travel, transport, or extra costs, the teachers can develop their skills anytime anywhere.

Online universities are examples of the blessings provided by the emergence of technology, such as Saudi Electronic University, which can provide many enhancements to a teacher's ability in a way that can meet the long-term objective of the Saudi 2030 Vision. The idea of virtual education was far from anticipated in the recent past, but technology has enabled this incredible opportunity, and allowed people to gain the advantages flexible, self-paced, and differentiated education. This paper attempts to ascertain the benefits of online training learning and the ways in which it has modified the lives of students and teachers. A great deal of research has been undertaken in the subject matter, and the related established literature was utilized in identifying the advantages of online training using educational technology platforms, such as the Hudl application, as useful tools for teachers' professional development.

Introduction

Online learning-training is increasingly becoming the leading form of learning in the world. There has been extensive research on the benefits and effectiveness of online learning compared to other forms of learning. Online learning is becoming an essential part of many educational institutions present and future strategy. This implies the growth potential for online learning.

One major concern is the costs and benefits of online learning. It is typically compared with other forms of classroom based learning. Research shows that online learning does not have additional costs as relating to personnel and can be catered to a wide number of teachers. Hence it is effective. E-learning also saves cost since no travel expense or time is needed. This applies for both the students and the teachers.

Female teacher can benefit in a number of ways from e-learning. The numerous advantages include flexibility of timing, achieving a balance between education and personal commitments, sense of self-fulfillment, and choosing courses from a wide number of options.

Online training is faster as compared to the classroom based training. One key benefit of online learning is its faster delivery time as compared to classroom based learning. The capacity to deliver is limited in classroom based learning as the number of available rooms, teachers or trainers is also limited.

Online training has positive effects on the environment as compared to traditional forms since it saves trees by not making use of paper. Even though it uses energy to run the computers, but the energy is much lesser when compared to the other forms as people can easily learn from their home computers. Carbon emissions coming from the requirement of travel and transport are also can be removed.

Online learning has a very positive impact on the learning process, students, teachers, businesses, and the environment. Without the need of any travel, transport, or extra costs, the teachers can learn anytime anywhere. The concept of online learning get bigger and bigger in the last decade and it is on the rise now, colleges today are emphasizing on fully online degrees that can be functionalized across the globe and hence prove to be beneficial in a variety of aspects to count along with distance education so why not we as a teachers get the best benefit of it with less expenses.

Online learning primarily offers convenience and flexibility at the end of teachers as it agrees upon flexible timings, work schedule, range of options and ease of accessibility. Furthermore, the aspect of cost effectiveness is covered which is indeed a major edge for students, teachers as well as educational institutes. All of that plays a crucial role in terms of inculcating responsibility, self-sufficiency and a sense of accountability, which is indeed a fruitful outcome in educative means for them.

Review of the Literature

In this literary review, published reviews were researched to investigate the strategic change enabled by the Online Education system. The literature utilized in this review was researched from online journals and research databases. Around ten literary articles were used in drawing conclusions over the effectiveness of distance learning and in determining the anticipated challenges looming large upon its sustainability. (Rocco & Plakhotnik, 2009)

Online learning

According to Alex Molnar and Series Editor (2019), online learning surfaced on the U.S Education sector in the last two decades of the twentieth century. The idea was aimed at enhancing the quality of education and enriching the learning experience. The term has been interchangeably used with distance learning, virtual education, e-education and cyber learning. It consists of all forms of education that primarily involve the delivery of course instructions and learning content via internet or in a combination, such as hybrid classes, where physical and virtual education are mixed.

Benefits of online learning

Online learning has added variety to the overall learning experience. It has expanded the scope of education and has provided students with a flexible nature of schooling (Daniel, 2016). The proposed flexibility of the online system stems from it attributes of 24/7 asynchronous classes, freedom from barriers of time and place, personalized pace, easy access to the accurate records of notes and ease of referral to instructions all the time (Allen & Seaman, 2013).

In comparison to this, the traditional classroom-based training deprives teachers of these utilities. Teachers under the traditional training system find themselves having less control over

the learning environment (Jones, 2011). Participants felt themselves being inflicted by confusion, rush of work and an eventual lack of understanding of the lecture. On the other hand, the concept of online learning provides remedies to such problems faced by the slow movers of the class. It gives them an opportunity to refer to the accurate record of the instructions and to proceed with the lecture at their own pace. This aspect broadens the scope of learning and gives them a chance of catching up with the brisk learners.

Affliction of attention deficit is a normal complaint in traditional classrooms. One of the drawbacks of traditional education, addressed by e-learning, is the lack of personalized and self-paced education. Researchers like (Geith & Vignare 2008), denote the effectiveness of online education in its ability to provide self-controlled environments for both teachers and students. It provides them with an opportunity to move at their own pace to enhance their understanding.

Freedom from the constraints of time and geographical limitations enhances the convenience of the online system of education (Geith & Vignare 2008). Contrary to the traditional education system, teachers are equipped with the prospect of attending lectures from the calmness of their office or even their own homes.

Online learning enhances cost effectiveness for the teachers as well as the institutions which provide education via internet and course management systems, such as Future Gate, that was created for students, so why shouldn't teachers get the same advantage of this great platform. The elimination of physical classroom cuts down the costs associated with the necessities of traditional training (Njenga & Fourie, 2010). The decrease in overhead costs, compared to the capital costs of online systems and maintenance, increases the charisma of online learning.

Challenges to Online Education

Similar to every new technology, the concept of doing online teacher training is open to further research and improvement. Despite the widespread acceptability, the perceived drawbacks of e-learning have not been completely phased out (Desai, Harts & Richards, 2008). Teachers and students are equally concerned about certain implications of online learning, including social isolation and lack of physical interaction teachers and students.

The advocates of hybrid education present the case of loss of quality education in the absence of the above stated attributes. Moreover, instructors find the concept less motivating (Clift, 2009), as they consider it necessary to expend three times the energy utilized in the traditional system with negligible additional benefits to them. Similar implications demand greater improvement in the overall system to make it unanimously acceptable tool of transmitting the knowledge.

Implementation Plan

This phase of the research shall target all the teachers who work in Mahd Althahab Department of Education. These teachers can be selected from a variety of academic backgrounds, like biological sciences, social sciences including administration, etc. Attempts would be made to diversify the research

scope as much as possible and to include teachers of various backgrounds so as to promote the validity of the research.

Research questionnaires with structured and open ended questions shall also be distributed amongst the teachers. Teachers and parents are important stakeholders in the process of promoting online education and hence their input would be necessary to determine the success of online programs in drawing interest of individuals that hold the status of inspiration for teachers.

The existence of these aspects paves the way for future research and development of better tools and methodologies in the training department in order to give the teachers the convenience needed. Education and choice of the mode of learning are personal decisions that shall not be documented and expressed without any prior approval from the respondent. This is one of the most important issues that shall be faced during this capstone. However, attempts shall be made to seek approval from the respondent of the school district to see his point of view. Moreover, demographic details are important for analyzing the acceptability of online training and similarly physical condition of the respondent is significant in determining his/her evaluation of the particular learning process, especially if it's in school districts similar to the one that I am working in, which has more than one hundred schools.

Goals/Objectives	Activities	Target	Period	Timeline	Responsibility	Where
• **Introduce the program to the teachers, staff and to whom it may concern and interested to use.**	Orientation workshop.	Teachers and Administrators.	One class in each school visit.	The first month of the school year of 2021	The school principle where the workshop will be held.	In the schools that are located in Mahd Althahab school district.
• **Provide professional development through HUDL App for teachers who are working**	Using (ITP) approach: Intensive Training Program.	Teachers and Administrators.	1 to 2 Months. 3 hours per week starting on September of 2021 until the end of	Keep it up to the teachers if they would like to do it in the summer or during the school year of 2021 -	Mahd Althahab Department of Education.	Mahd Althahab Department of Education – Training center.

in Mahd Althahab Department of Education.			the school year.	2022		
• To Evaluate and assess the benefit of using the HUDL app to improve the learning and teaching skills in order to have better outcomes.	**Survey**	**Teachers and Administrators.**	**1 week to discuss and analyze the results of the survey.**	**By the end of the fall semester of 2021.**	**The administrative and advisory departments.**	**Mahd Althahab Department of Education.**

Evaluation plan

As indicated in the previous sections, that questionnaires having a mix of open ended and structured questions shall be used to evaluate the perceptions of education stakeholders with regards to the merits or demerits offered by online training. Questionnaires will help in standardizing the responses and will result in providing structured answers that will further simplify the matter of statistical evaluation. In addition to this, in comparison to other research instruments, questionnaires help the surveyor in controlling the path of research and help in effective utilization of research time. Tools such as interviews can, at times, lead to irrelevant discussions that waste precious research time. On the other hand, tools like questionnaires are ideal for surveying large samples and thereby serve the objective of this particular research, which aims to collect responses from a wider population of teachers.

Research Questions

The survey would attempt to gather responses from students, teachers and parents over the following open ended research questions:

1. Rate the level of satisfaction/dissatisfaction with full or partial online training?
2. What factors contributed to the satisfaction/dissatisfaction of online learning?
3. Is there anything you would have liked to have had more training on? If so, please explain.

What improvements could be made to the training program in order to achieve the objectives?

The above questions shall be broken down into a series of open ended and structured questions. The responses for open ended questions shall be categorized on the basis of key terminologies, while those that are structured shall be categorized by response retrieval on a Likert scale and shall be analyzed in accordance to the responses obtained. The retrieved data shall be subjected to a mixed-method analysis and tools, while for open ended questions, keyword analysis shall be employed. The results obtained shall be plotted with graphs and bars for pictorial representation of the results. In this survey, the targets will be both Teachers and Administrators, and it should not take more than two weeks to discuss and analyze the results of the survey. The results will be available by the end of the fall semester of 2021, as described in my implementation plan, and it will be left under the administrative and advisory departments' responsibility and instructions.

The Survey that I design I'm going to use it to Evaluate the Effectiveness of the Training platform:

Name: _____   Department: _____

Year of experience: _____   Supervisor Name: _____

Date of Training: _____   Name of Trainer: _____

Please rate the following information on a scale of 1 to 5, with 5 being "strongly agree" and 1 being "strongly disagree".

1= Strongly Disagree   2 = Disagree   3= Uncertain   4= Agree   5= Strongly Agree

1- My trainer thoroughly explained each task that would be expected of me.

1	2	3	4	5

2- Each task was demonstrated first before I was asked to perform it.

1	2	3	4	5

3- My trainer explained the reasons for performing tasks in an order.

1	2	3	4	5

4- I could perform each task with my trainer, and then appropriate feedback was given.

1	2	3	4	5

5- I feel enough time was devoted to learning each one of my duties.

1	2	3	4	5

6- I feel comfortable in performing these tasks on my own now.

1	2	3	4	5

7- My trainer encouraged me to ask questions whenever there was something I did not get.

1	2	3	4	5

8- HUDL policies and procedures were well explained.

1	2	3	4	5

9- I was shown where supplies and equipment are stored so that I will be able to access them myself.

1	2	3	4	5

10- My trainer is knowledgeable about the HUDL policies and procedures.

1	2	3	4	5

11- Is there anything you would have liked to have had more training on? If so, please explain.

_____

_____

_____

12- What improvements could be made to the training program in order to achieve the objectives?

_____

_____

_____

I have although transferred this survey into Google form which you can find in the link below to make the process easier.

https://docs.google.com/forms/d/e/1FAIpQLSdR0OG6-ysAw1Z86F5WvsXlzMUoWJmx3LR4eFTNUa5s3qdgiw/viewform?usp=sf_link

OR

https://forms.gle/1a14ceJbJ2nsVo8z5

Results

To research about the effectiveness and trends of online training learning, online questionnaires can be used. Survey forms can be prepared with the help of 'Google Docs'. The research involved in ascertaining the responses of the stakeholders regarding the merits of online learning has to be extremely well designed to ensure that valid results are obtained for

the developed hypotheses. These survey forms would contain all the necessary questions, such as some basic personal information like name and location, the preference of online learning, any past related experience, etc. The help of different websites and social media platforms can also be used to get the adequate amount of responses for the research. The population can be targeted by carefully selecting only the appropriate platforms and also by putting a note like answer only if you are working in Mahd Althahab Department of Education.

The results can then be gathered, analyzed and converted into valuable information by using different analytical and mathematical techniques, such as averages or percentage of teachers who preferred the online training learning instead of going to the training center to receive it face to face. I expect the outcomes of using the survey will be 80 percent agree that HUDL application is a successful way to get the professional development to the next level that will make the connections between the teachers, staff and their schools even easier. If the results are not what I expect, the nearest alternative could be to use the online training with the traditional forms to get the best outcomes possible. In addition, we will have a combination between face to face and online application to train different levels of teachers who do not have the skills needed or do not know how to deal with the technology from the whole Governorate. Consequently, a varied background of teachers would help in eliminating the bias that can occur due to the selection of respondents of a particular school district.

Conclusion

Online learning-training is increasingly becoming the leading form of learning in the world. There has been extensive research on the benefits and effectiveness of online learning compared to other forms of learning. Online learning is becoming an essential part of many educational institutions' present and future strategy. Effectiveness of online learning can be measured by the fact that online learning should result in at least equal or more to other forms of learning of the same institution. I would like to provide professional development through HUDL App or any online platform for teachers who are working in Mahd Althahab Department of Education. Online learning and online training have enabled educational opportunities and information to reach the farthest of the communities as well as enhance cost effectiveness for the teachers and institutions providing education via internet and course management systems.

Tools like questionnaires are ideal for surveying large samples to serve the objective of this particular research which aims to collect responses from huge amounts of teachers. Web based surveys provide less control to the surveyor and are therefore better administered using questionnaires. The importance of the information in the course of research will be conveyed to the respondents to minimize the repulsion in responding to such questions. Last but not least, online learning has added variety and flexibility to the mode of acquiring education. It has broadened the scope of learning and has given people an opportunity to enlighten themselves with the radiance of knowledge in a personalized, convenient, self-paced and controlled manner. I believe that teachers should educate themselves anytime anywhere, which will enhance reaching one of the Saudi 2030 Vision objectives.

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Appendices

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Author Biography

Emad Alharbi is a computer science teacher in the Omar bin al-khattab high school, located in Mhd-Althab, in the Kingdom of Saudi Arabia. He holds a master's degree in educational technology concentrated in curriculum and instruction. His work has focused on developing strategies and teaching methods in general education curriculum to make the lessons more engageable for his students. He has completed research in the field of education instruction, such as using collaborative learning in classroom. He is in doing an exchange program called Khbrat in the U.S.A at Kansas State University, located in Manhattan, Kansas. One of his short-term objectives is to do his Master's and get accepted in a PhD program.