

E-learning Instructional Model Design

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Introduction

This paper is a synopsis on e-learning, including its definition, its application, and its expansion. E-learning is a technology-based instructional design that “is not new” (Brown et al., 2016). There has been mentions of e-learning since “the 1960s” when it was referred to as a “computer-based training or CBT” (Brown et al., 2016). With the reinforcement of digital technology by the internet, it has become evident that e-Learning is not a fad and will not be one. With its contribution to synchronous and asynchronous approach to teaching and learning, with its recent global popularity, and with the high demands for its use, e-Learning has had a positive impact on instructional methodologies in an unprecedented fashion. As a result, a large body of educators are turning to e-learning to enrich their classroom environment, to motivate their students, and to create intense students’ engagement. Following trends, this paper explains the creation of an e-Learning program with a vision, a plan, and a funding proposal for its execution. The elaboration for the program is presented below.

Vision for e-Learning.

The Basis of E-Learning

To have an e-Learning vision, there must be an understanding of what is e-Learning. According to Clark et al. (2016), e-Learning is an instruction delivered on a digital device that is intended to support learning.” With this definition, e-Learning is not simply a basic characteristic of online, remote, or virtual teaching. Anytime a digital device is in use, there is e-learning. Often, when there is mention of e-Learning, it is in reference to synchronous and asynchronous knowledge delivery. With synchronous, although virtual, the students are present while the lesson is taking place. With asynchronous, the lesson is placed on a learning management system, and the students do the work when it is most convenient to them (Clark et al., 2016). In this scenario, however, it is going to be important to differentiate the

distinction of the e-Learning vision that is being articulated in this version. This is not a new definition of e-Learning, but an application of its definition knowing that digital refers to binary.

The Blended E-learning Model

The vision of e-Learning that is being discussed here is a case in which students and instructors are live, in-person, and in proximity. The Instructors and students are within four walls, in a room, or in a conference center. The instructor is able to circulate the room, supervise students, and provide instant feedback, physically. What this vision implies is the availability, the accessibility, and the deployability of the world of technology within the confines of a classroom. It may be a 25-foot-by-25-foot room, a 20-foot-by-20-foot room, or even a tiny 10-foot-by-10-foot room. What matters is that anything that the world has to offer, technologically, in terms of infrastructure, bandwidth, hardware, and software, is present there for the purpose of teaching and learning. This e-learning method will model the features of “blended designs which integrate the benefits of technology and in-person instructional contexts” (Clark et al., 2016).

The Justification for the E-learning Model Vision

The debate in this forum is not about what will be used daily, but instead what is available to be used or what should be available to use. For instance, on the 20th of July 2021, Jeff Bezos, “the world's richest man, went to space and back Tuesday morning on an 11-minute, supersonic joy ride aboard the rocket and capsule system developed by his space company, Blue Origin” (Wattles, 2021). In addition, on the 11th of July, 2021, “Richard Branson has boldly gone where no space baron has gone before, when he rocketed to more than 50 miles above Earth in the space plane from his rocket venture, Virgin Galactic” (Wattles, 2021). These raised some interesting questions. What technology have they used to be able to achieve these goals? Why is not their level of technological sophistication available and accessible to all children? Why should some children be left behind? If a technology is available to one American citizen,

it should be available to all American citizens. The goal of the vision is equal opportunity education for the welfare of all. This is about education, status, and economic rank. To reiterate Winthrop et al. (2018), “educational attainment determines income and status in society.” Therefore, every child should have access to their technology.

Education Marginalization

There is a philosophy that, in the instructional design of technology, there should be consideration of human potential. Clark et al. (2016) takes issue with the “technophiles” who want “cutting edge technology” to all while “ignoring human mental limitations.” In his view, an institution should have “technology in ways that support learning” (Clark et al., 2016), which is logical. However, the final decision should be based on a need, task, and learner analysis approach. It should not be arbitrary, or it becomes a “leapfrog” issue that discourages “the deep inequalities between the rich and the poor” (Winthrop et al. 2018). There is potential for biases in the delineation that the institutional inclusion of technology should match the level of “human cognitive” ability (Clark et al., 2016). Children’s multiple intelligences should be challenged rather than marginalized. In the view of this vision, children should have access to the resources that are integrant in society.

The E-Learning Purpose and Process

In “what, why, and how e-Learning,” Clark et al. (2016) gives a layout of the content and processes of e-Learning. He mentions the “relevant content to the learning objective” (Clark et al., 2016) regardless of medium and bandwidth. The purpose is that students are learning within a system that “includes intranet or internet, instructional methods with feedback, collaboration in breakout rooms, and media elements such as word and pictures” (Clark et al., 2016). In Clark et al.’s (2016) vision, e-Learning is important because it opens to students a new door of opportunity. His vision is a valid description for the technology and cooperative rich environment where teachers and students are

emailing, videoing, and arguing their viewpoints orally. His vision is the vision that this e-learning approach has adopted. The difference is that, in this vision, all interactions are in-person, live, which make this vision so meaningful.

The In-Person Technological Synchronous Approach

In this e-Learning vision, lesson delivery will take an in-person technological synchronous approach. It means that, at the same time, students will have access to a Jamboard and a smartboard. Students may be collaborating on a project using Google Docs while an instructor is producing verbal and digital feedback about and on their assignments. Students will have access to lessons and instruction posted on a learning management system including lesson objectives and formative assessments. A teacher may be differentiating instruction with a group of students who are interacting among themselves using a Pear Deck digital tool. In the idea of Brown et al. (2020), “no particular event or date marks the beginning of a modern science and technology of instruction.” This will be the end of that statement. This instructional design version of e-Learning would revolutionize strategic technological approach to teaching and learning. This innovative e-learning classroom will maximize students’ engagement and achievement.

Application to an Organization

The “In-person Technological Synchronous Approach,” or e-learning classroom, is a K-8 instructional design model. It will require that every student has access to the most recent digital gadgets, software application, and bandwidth on the market. A computer will have to be available to every student. The school will have to be equipped with internet access and technology infrastructure. Since “basic human wants and needs must be addressed before any instructional intervention is attempted” (Brown et al., 2020), there should be a need, task, and learner analysis. Instructional designers will conduct a particular K-8 school’s inquiry to investigate what it would take to implement

this program and vision in specific schools. With this project, classrooms will operate live with the assistance of a learning management system. It will be a natural, typical, and enviable scientific management system where no time is wasted. Daily lessons will follow the posted and minuted agenda on the learning management system. There will be educators' preparation on the TPACK, SAMR, and TAM models. Educators will apply in their practices the prescribed strategies of these designs. Educators will develop digital exemplary competence that is vital to the success of this vision, and there will be the birth of a new generation of instructors, learners, and entrepreneurs.

The General Vision

Individuals operated the "Virgin Galactic" and the "New Shepard" that took Richard Branson and Jeff Bezos out of space. The opportunity to operate these spatial vessels should be given to every child. This is why the e-Learning classroom is being designed. Clark et al. (2016) speaks of "an impressive arsenal of instructional technologies ranging from games on mobile devices to animated pedagogic events." Technology is a world within a universe. The goal of this vision is to expose elementary and middle school students to that world. Where technology is going is everyone's guess. However, the prepared mind will be able to follow its trajectory. The goal and the vision are to inculcate into children the preparation and disposition to follow technology in its track.

E-Learning Plan

The Training and Awareness Campaign

This plan will need a training campaign, which will proceed with a series of workshops and presentations on the TPACK, SAMR, and TAM framework models and on the position of Winthrop et al. (2018) on "skills inequality and skills uncertainty." Efforts will be made to have a ten-minute presentation in each staff meeting, and a full forty-five-minute presentation in team meetings, once a week. Taking a leadership position, there will be education sessions on the state of misfortune and its impact on

affected children. People will be made aware of the disadvantages of some children. For instance, the Covid19 period has been a strong indicator of how children with a low social-economic background are affected in society.

The Need for the E-Learning Plan

There have been reports on the impact of Covid19 on children. According to Süt (2021), “due to this pandemic issue, the teachers and students have faced tough situations to continue their courses.” For instance, some children were home with no internet and no access to school and education for months. Other children sat in front of a computer that took five minutes to boot up. Some children gave up when their computer took three minutes to process a command or keystroke. Therefore, some children were left behind as a result of the brokenness of their device. In addition, globally, there are “public debates on inequality, which is a pernicious challenge” (Winthrop et al., 2018). This to say, it is going to be a long and arduous operation. Nevertheless, there will be the attempt and the persistence to persuade individuals on the need for this program, on the disadvantages of children, and the deficiencies of some environments.

The Technological Conceptualization

To succeed in this goal and plan, educators will have to understand that technology is the way of the future. Therefore, the topic, “technology and education” will be included in the agenda, presented, and reiterated in conferences. When “visual media such as photographs, slides, and films” appeared in the beginning of the twentieth century, Thomas Edison predicted that “books will be obsolete” (An, 2021). Evidently, that was a false prophecy since one hundred years later students are still using the printed texts. In addition, “motion picture has not been able to teach every branch of knowledge” as Thomas Edison foresaw it (An, 2021 as cited in Saettler, 1968, p. 98). However, a classroom teacher will experience an upheaval if technology does not have its rightful place in the classroom’s instruction.

“Computers and digital technologies in the 21st century have had a significant impact on the ways we communicate and learn” (An, 2021). Technology has created a culture that influences our means of expression. Emphatically, the absence of technology in a classroom is likely to be a “pitfall.” Therefore, there will be an attempt to persuade educators to seriously consider the new and unavoidable benefits that technological innovation has to offer to improve students’ skills.

Foundational Frameworks

TPACK, SAMR, and TAM are the three frameworks, on which this plan is based. Efforts will be made for teachers to fully understand the role that these models play in the implementation of instructional technology. In other words, opportunities will be seized to present workshops that elaborate on these models. For instance, “TPACK deals with how teachers develop their understanding of applying technology to the teaching of subject-matter content in an appropriate pedagogical manner” (Tseng, 2019). When a teacher understands the implication of technology, when a teacher applies pedagogy in lesson delivery, and when a teacher hones the preparation of his/her content knowledge, children benefit. This is the premise of the TPACK model. There are a variety of teaching techniques such as providing feedback, heterogeneous groupings, formative evaluation, and personalized instruction that technology facilitates. Feedback is essential for students’ development, and it works best when it is instant. Technology has applications that allow teachers to write feedback on students’ work as a student is doing the work. There are “copious” reasons for which a classroom should have in practice advanced technology utilizing the TPACK model. Therefore, this model will be elaborated on to promote the objective of the e-Learning classroom plan.

Advancement in Technological Skills.

Alongside the TPACK model, there will be the SAMR model. To find an application for the SAMR model, educators will have to adopt and adapt to advanced techniques in technology to enhance

learning. For example, the SAMR model is an acronym that stands for substitution, augmentation, modification, and redefinition. It is an ideal progression in the use of technology. For instance, for substitution, instead of writing on paper, students may use Google Docs (Walsh, 2015). For augmentation, instead of copying and pasting for illustrations, students may use Google Drawings to add an illustration to their work (Walsh, 2015). For modification, students may use a PowerPoint Presentation to showcase their theories and analyses along with screenshots, audio, video, and hyperlinks (Walsh, 2015). For redefinition, students might film their PowerPoint Presentation, edit it, and use it as a reference for demonstration of skills and advancement in technological abilities (Walsh, 2015).

The Challenge with the SAMR Model

There are many ways that the SAMR model may be implemented depending on grades, grade levels, and subjects. Presenters and developers will be invited to present and to give concrete examples on how the SAMR model may be applied. “It is assumed that teachers use technology more effectively at the levels of modification or redefinition, as opposed to the levels of substitution or augmentation” (Tseng, 2019). This to say, to find technological applications beyond substitution and augmentation, an educator has to be able to perform on a “higher scale” in technology (Tseng, 2019). As a result, an objective will be to give authority to educators to that level of acceptance.

The Need for the TAM Model

To feel inadequate may be painful. This is why there has been “resistance to technology.” Successful traditional educators do not want to revert to new strategies and experience psychological setbacks. This is why TAM is framed in this process. TAM, the “technology acceptance model,” will be introduced as a means to ease off the educator’s load. It is not worth it to work harder but smarter. The TAM model will explain how to work smarter rather than harder. However, “without user acceptance, the

value of the technology diminishes” (Deslonde, et al., 2018). The “four constructs” of the TAM model such as “perceived ease of use, perceived usefulness, attitudes, and actual behaviors” will be an integrant segment of planned workshops for the acceptance of technology. Technology has gamification and its principles. Students may be enthusiastic to work on ten more math problems after the completion of an initial fifteen, depending on how the new set of problems are presented. This is why TAM is significant. TAM will be used to explore possibilities that technology may launch.

The Courseware for the E-Learning Classroom Model

In summary, in this plan, every student will have a computer to work with in the classroom. The internet with full bandwidth will be available to students. Every teacher will be prepared and trained to face the challenge of innovation and fast pace technology. The school infrastructure will be developed, and students will have access to every advanced software that they need to be able to compete with the rest of the world. There will be a sense of satisfaction among administrators and educators because students will be learning, and the atmosphere will be professional, calm, and amicable. The implementation of the E-Learning classroom will bring a wave of hope in education, in the K-8 school system.

Funding Proposal

Future Investment

This project is an investment into the future and a preventive measure. What makes its implementation “worthy” is what it will produce: income and wealth in the long run. In general, its activation will create a new generation of children and learners who will not be a burden to society. Globally, nation’s building consists of empowering citizens to be able to compete, to market themselves, to keep a job, and to provide wealth to their economy. According to Winthrop et al. (2018), “widening income inequality” is “the defining challenge of our time.” Therefore, to reduce social instability,

inequality, and inequity, there is just one path: quality education for all, which is what this program is crying out for.

A Vision to Pay For

Affording to pay for this program has its merit. According to Huang et al. (2020), “employing interventional educational programs are particularly rare.” For this reason, we need a program of this genre, which is likely to reduce poverty and the suffering of struggling families since their children will rise into a superior economic echelon. This program will benefit all children, but it will be most beneficial to largely disadvantaged children, communities, and parents. Although education is the only path for welfare, “it is the less frequently debated reason for inequality” (Winthrop et al., 2018). It is a need to have a program that initiates a world of opportunities to all through education. This vision will satisfy this need.

A Deserved Investment

This world has some fortunate children. Their parents are in line waiting to purchase for them the next available digital gadgets on the market. Some other children do not see any recent and advanced computerized equipment unless they are in the setting of a school. This is why this program wants every child to sit in front of a “computer with cutting edge technology” (Clark et al., 2016) from the time they walk into the school door to the time they exit out. This is why this program is asking that every educator be trained in the TPACK, SAMR, TAM educational design models. This is why also this program requires me to take a leadership role in promoting it and presenting its worth, its requirements, and its principles in workshops and meetings. This is why this program deserves the investment and should be paid for.

The Source of Funds

This program will pay for itself. With this program, scholarly institutions will purchase fewer books, will use less paper, and will buy fewer supplies such as markers, pens, and pencils. This program will reduce expenses freeing money from budgets. These funds may be reallocated to help pay for this project. Moreover, many companies are willing to donate money to support equitable educational programs of this sort. For instance, “the JetBlue Foundation offers thousands in grant money to nonprofits looking to support education in the field of aviation and STEM research” (Gniadek, 2021). Some other companies such as Sony, Expedia Cares, and Disney “match any donation made by a current employee or retiree to an educational organization” (Gniadek, 2021). These companies “encourage” their employees to give money that they are willing to double, “to K-12 schools, colleges, and universities” (Gniadek, 2021). These are opportunities that will be explored to raise money. In addition, grants and letters will be written to persuade companies of the prospect of this program to turn children around, to reduce school dropout rates, and to promote social justice through education. There will be fundraisings involving children’s participation, planting seeds for the development of their education. Administrators, teachers, parents, students, and the community will be mobilized to get money for the satisfaction of this plan and the “E-Learning Classroom” vision.

Conclusion

The E-learning classroom model is exceptional. Educators should look into it to provide state of the art education to all children. Acknowledging that “Education is not a privilege, but a human right” (Davis, 2021), educators should develop means to ensure that all children enjoy the benefits of quality education. This is the vision of this plan. Birth should never be a social determinant of life and success, but fairness. This is why this program is edified: to make sure that equity is universal. This project is an insurance depository that every child has access to the technology that Jeff Bezos and Richard Branson

used to launch into space in a fraction of time. To assess and measure this plan, stakeholders will be interviewed and will answer some survey questions to express their evaluation of the process.

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