Technology and Distance Learning in Higher Education: Making Distance Learning Work for Your Students

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Abstract
The field of distance learning in higher education is experiencing a new paradigm shift in the methods used by instructors and distance learning administrators to interact and communicate with their students online. As millennials and other traditional students continue to grapple with how to balance work, school and other extracurricular activities, many institutions of higher education are looking for ways to bring the learning to students. Distance learning is thus, providing access and new opportunities for instructor to students as well as students to students' active interaction even when they are physically apart. In this research synthesis, we explore existing literature for the current trends in distance education in higher education.

A research synthesis is defined as the scientific process of integrating empirical research in order to be able to make generalizations concerning a particular topic (Cooper & Hedges, 1993). We will explore the need for distance education as well as the current trends in its implementation. In addition to current trends, we will provide examples of technologies and platforms that are available as options in the delivery of distance education. Technologies and platforms that place students in the heart of distance learning and give instructors the opportunity to customize learning to meet students' needs as well as technologies that also provide flexibility without compromising the quality of education being offered. Furthermore, the authors will identify the advantages and disadvantages of distance learning as a credible educational method of delivery. Implications and recommendations for future research will also be discussed.

Keywords: distance learning, distance education, higher education

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Introduction

The final decades of the 20th century saw the burgeoning of distance learning (Garrison, 2000). While education has traditionally been conducted face-to-face, there has also been some distance education in the form of correspondence courses that originated in Europe where by students received packages of educational materials in the mail and worked at their own pace (Priyanka, D'costa, & Nayak, 2014). This remained the major form of distance education for the greater part of the 20th century until the emergence of video and audio taped lectures, educational radio, instructional television, and videoconferencing (Means, Toyama, Murphy, & Baki, 2013, Priyanka et al., 2014). Before further discussion, it is worth mentioning that teaching is changing and part of that change largely involves technology. According to Amirault (2012), innovations in technology indicate major changes in the way in which education will be delivered to a majority of the students in the 21st century. The use of the Internet to deliver education is another example of distance education. This is typically known as online education and in this case, students have to be connected to the World Wide Web in order for them to participate in the learning process.

So, what is online distance learning? With the different types of distance learning mentioned previously, it is obvious that the meaning of distance learning has evolved over time depending on what technologies were the most recent at any given time in history. For the purpose of this paper we are going with the definition by Allen and Seaman (2013) based on a survey of online learners who said, "online courses are those in which at least 80% of the course content is delivered online and typically have no face to face meetings" (p. 5). The bottom-line is that there is a separation between the instructor and the student (Priyanka et al., 2014) The beauty of distance education is that it doesn't restrict students to a specific place and time and that may be one of the reasons why we should expect distance education to be appealing in the long run, and to last for a long time (Dixson, 2010). According to Garrison and Anderson (2003), distance education has the ability to efficiently deliver information (if done well, for example, if the courses are designed well and also evaluated in a meaningful way).

Trends in distance education

Distance education has been in existence for more than a century and current trends in the implementation of distance education show some exponential growth in not only such educational programs and course, but also in the sheer number of students opting for online classes in higher education (Means et al., 2013; Meyer, 2014, Priyanka et al., 2014). Scholars suggest, it has become the norm as a course delivery method as many institutions of higher learning face the challenges of low student enrollment due to rising cost of getting quality education (Boettcher & Conrad, 2010; Graham, Woodfield & Harrison, 2013; Keengwe & Kidd, 2010). Distance learning is therefore, increasing access while reducing cost for a wide range of students (Bowen, Chingos, Lack, & Nygren, 2014).

Teaching and learning online, has also become a new area of research among higher education researchers. In addition, there has been an increase in the number of professionals receiving/getting/seeking either new or additional training in order to help build their confidence in efficiently and effectively delivery education on an

online platform (Means et al., 2013). In order to support distance education, colleges and universities have also been creating resources for easy access of information online e.g. our university has stared subscribing to online journals and procuring electronic versions of textbooks, thereby creating a "virtual" library for students.

Professionals in higher education are looking to distance education as a solution to some of the problems/issues prevalent in colleges and universities (Meyer, 2014). For example, more students are enrolling in colleges and universities, but there is not enough physical space to hold that many students and as a result, online courses can solve that problem (Meyer, 2014). Another problem being solved by distance education is the fact that more and more students are looking for flexibility due to a host of other commitments (like work and home) vying for the students' time (Priyanka et al., 2014) and distance education solves that problem (Means et al., 2013; Meyer, 2014). Consequently, it is advisable that professionals not only keep up with developments and advancements in online technologies (Meyer, 2002), but that the delivery of distance education is done with excellence (Dixson, 2010; Meyer, 2014). Once that's done, distance education helps institutions of higher education to make their courses accessible to anyone who may be interested in them.

This paper also seeks to share best practices that would lead to successful implementation of distance education. With the invention of new technologies, more and more generation X students rely on these technologies in their everyday lives. In order to provide a more flexible learning environment for working learners or students from different locations, many institutions of higher learning are now providing more online courses. This is aimed at reaching a larger student population and to increase enrollment (Ally & Prieto-Blazquez, 2014, Tsinakos & Ally, 2013). Distance learning environments are also changing the way students access course materials, interact and communicate with instructors and their peers.

Examples of Online Technologies and Platforms

Distance learning is becoming more and more appealing because of the existence and availability of a plethora of resources that anyone can use in the delivery of distance education. Some of these resources have a fee attached to their use while others are openly available at no charge. Below is a list of a few popular learning management systems or online platforms that professionals can use to deliver education remotely using technology:

- Moodle (https://moodle.org/)
- Edmodo (https://www.edmodo.com/)
- Instructure (https://www.instructure.com/)
- Blackboard (http://www.blackboard.com/)
- Chamilo (https://chamilo.org/)
- Schoology (https://www.schoology.com/)
- Canvas (https://www.canvaslms.com/)
- Sakai (https://www.sakaiproject.org/)
- Kornukopia (http://kornukopia.com/)
- Youtube (https://www.youtube.com/)
- Google for education (https://edu.google.com/)

Advantages and Disadvantages of Distance Education

Nothing is without a fair share of its pros and cons. The following is an exposition of some of the advantages and disadvantages of delivering education via online platforms. Starting with advantages; first and foremost, since universities thrive based on the number of students in school, the availability of distance education brings with it increases in the numbers of those students (Annetta, Folta, & Klesath, 2010). So, distance education is definitely a plus for institutions with established distance education programs. Aligned to this is the fact that distance learning increases or widens such institutions' reach (Annetta et al., 2010).

Today's students are looking for flexibility in their education and distance education delivers in that arena (Means et al., 2013; Meyer, 2014). In addition to flexibility, distance education is convenient for some students and provides a comfortable learning environment compared to having to show up to class at a certain time during the day and meeting with people they may otherwise not feel comfortable with. Related to convenience and a comfortable environment is the fact that students will learn best when they use their learning style (Eom, Wen, & Ashill, 2006). In a face-to-face lecture, it is highly unlikely that the teacher will accommodate all learning styles. Interestingly, many students' learning styles seem to have been reshaped into a learning style known as multitasking because of distance learning and instructors need to adapt (Annetta et al., 2010).

Distance education is appealing because it does not foster the mere transference of information from the teacher to the student (Meyer, 2002). According to Annetta et al. (2010), if designed well, distance education has the potential to prepare students with the skills needed to engage in lifelong learning. It becomes the institution and instructor's responsibilities to endure meaningful learning. Another benefit of distance education is that it is self-paced and the course materials are always available. We consider this an advantage because in a face-to-face class if you miss the lecture then there are no materials available to help you as a student. Yet another advantage identified is that distance learning promotes and fosters relationship between students from different cultures, thus creating intercultural experiences (Ally & Prieto-Blázquez, 2014). Furthermore, distance learning can teach some students self-discipline, self-direction, and time management skills since it is self-paced. This is a good thing because the reality is that students need to have developed these characteristics by the time they graduate in order for them to be productive, efficient team members in their professions. Additional advantages associated with distance education that is designed well include enhanced class discussions and innovative virtual teamwork (Eom et al., 2006). Distance learning in essence provides opportunities for students to learn in their own environment as they become more actively involved in the learning process.

With regards to disadvantages of distance education, the major issue seems to be the fact that there is no commonly established set of standards that distance education should follow This is problematic because this breeds risks related to a lack of accountability related to student success on the part of institutions investing in distance education that relies on technology and the Internet for delivery (Annetta et al., 2010). Also, even though distance learning may raise enrolment figures in

institutions of higher education it brings with it hidden costs in the form of training instructors, furnishing libraries with necessary technological devices, and maintenance fees (Annetta et al., 2010). The biggest complaint from professionals who are used to delivering content the traditional way is that there is little to no face-to-face interaction and closely related to this is the fact there is usually less instructional support from colleges and universities (Means et al., 2013). Also, developing a good online course requires more work and is time-consuming compared to designing a traditional course (Annetta et al., 2010). However, we should mention that for most professionals, more work and time are usually invested on the front end. Once course development is complete the amount of bot work and time eases.

Another challenge associated with distance learning is that teachers risk overloading their students with unnecessary 'busy' work in the name of making the course as rigorous as a traditional one. From a student perspective, distance education can be painful if there is information overload. Since distance learning requires intense self-discipline and good time management skills, it still encourages procrastination in those who struggle in those two areas. According to Priyanka et al. (2014), other drawbacks related to distance education involve higher rates of students dropping out and lack of meaningful assessments of students' progress. Finally, distance education may encourage academic misconduct in the form of cheating. This is because it is almost impossible to monitor what and how students do when they are taking a course from venues comfortable and convenient for them. With benefits outweighing the drawbacks, we feel that it is a worthwhile endeavor for not only instructors, but also institutions as well to explore the possibility of offering distance education.

Making distance learning work for your students

Research in student support in distance learning according to Simpson (2013) has not received much attention. As institutions of higher learning look to distance education as a way to increase retention rates as well as solve low enrollment, there is an increased attention in supporting students participating in distance education in higher education. Words such as guidance, advice and counselling have been used to describe forms of student support. For the purpose of this paper, support is being described as academic and non-academic support provided to students in distance learning to help fully negotiate their way through the course (Simpson, 2013). This is especially important for those non-traditional/adult students who have not been in the classroom environment for a long time. Academic support might involve the thorough explanation of course materials and concepts by instructors or faculty, giving students immediate feedback and tracking students' progress. On the other hand, Simpson again suggested non-academic support involves advising students with suggested directions for progress.

Another way to make distance learning work for your students is by building social connections in the online environment. In their research about what students tell of their best learning experiences Dunlap and Lowenthal (2014) concluded that in cases where faculty had substantial relationships with students, there was significant effect in students' engagement in the course. The authors suggest that having a social presence in the distance learning course environment goes a long way to having a successful course. These forms of establishing connections include but not limited to

providing orientation videos aimed at walking students through what they will be expected to do in the course; an introductory video sharing information about yourself; weekly announcements on assignments; giving personalized feedback; keeping in touch with students through weekly emails and participating in discussions.

Yet, another area to support students' learning experience is dealing with the issue of accessibility. Being able to access course materials and making the technology available for all students is a challenge. King and Thompson (2016) posited that one of the indicators for student success in an online environment is the ability to access and understand the technology. Some suggestions given by the authors include the usage of different multimedia in the formatting of course materials to make it accessible to auditory and visual learners. They added that screen readers and magnifiers can be utilized to help all special needs students. These recommended supports will make learning more engaging and fruitful for all students in your online course.

Implementations and Recommendations for Future Research

The literature reveals that in an online teaching environment the role if the instructor changes from lecturing which is more common in face-face teaching environment to that of a facilitator or guide as posited by Boettcher and Conrad (2010). The authors noted that this is a better approach, as it allows the instructor more time to create community-building experiences. A community, where the instructor or teacher share the teaching roles with their students, thereby allowing the students more opportunity to actively engage with their peers in meaningful dialogue (Baran, Correia, & Thompson, 2013). It is also suggested that the online learner also have new roles. The online learner need to be a more self-directed as he/she takes more responsibility for their own learning (Conrad & Donaldson, 2011).

As research into distance learning continues to increase, scholars wonder if distance learning will be of the same quality as face-face classroom learning. It is therefore, imperative that online instructors create a learning environment that would afford students the opportunity to be actively engaged in course resources and assignments (Bowen, Chingos, Lack & Nygren, 2014). In order to hold students accountable in the online environment, instructors should design thoughtful discussion questions that will encourage students to be more active rather than passive—questions that will require students to think deeply about the content and in turn make them better prepared for the course (Boettcher & Conrad, 2010).

Based on a synthesis of existing literature on this topic, we assembled some recommendations for adapting to distance learning offered via online platforms as listed below:

1. Since distance education is growing, colleges and must financially invest in supporting their faculty to design effective online courses (Dixson, 2010),
2. Professionals and institutions alike need to adapt to the vast amounts of easily accessible information available online and use that to their advantage,

3. Once a professional chooses to use technology to deliver course content, it becomes critical for the course to push students to engage in critical thinking skills (Meyer, 2002),
4. There is need for professions to help students filter through publicly available information so they (students) can identify meaningful material that can be useful to help them succeed (Garrison & Anderson, 2003),
5. Distance education should not be focused on the memorization of facts; instead, it should be aimed at creating lifelong learners (Garrison & Anderson, 2003),
6. Professionals delivering their content online need to continue learning ways of engaging students e.g. being present without being overly present (Rourke, Anderson, Garrison, & Archer, 2001, as cited in Garrison & Anderson, 2003), creating active learning opportunities among students, creating engaging, collaborative assignments for students (Means et al., 2013; Meyer, 2014), and motivating students (Eom et al., 2006),
7. Professionals also need to avoid giving unnecessary work and focus on the important stuff,
8. Instructors must strive to provide structure in an online course, and also give meaningful feedback in a timely manner (Eom et al., 2006).

We strongly believe that implementing some of the suggestions mentioned above is a way to make distance learning work for your students if you are a professional actively engaging in the provision of education online.

Conclusion

Distance education has been in existence for more than 100 years and the meanings attached to it have evolved as much as technological advancements have changed. There is an increase in the implementation of distance education in institutions of higher education and research related to that field has also been advancing. The provision of distance learning seems to be a solution to some problems being experienced in higher education, but it is without its perks and challenges. There is an abundance of resources to use in the delivery of distance education and we provided a few examples of those platforms. While some have a subscription fee, others are completely free. Higher education should be aimed at helping students engage in critical thinking skills in and outside of class and distance education should be designed to foster both meaningful and lifelong learning. Building an online community where students feel supported makes for a successful learning experience. It is therefore of utmost importance for instructors or faculty of distance learning to develop courses that are student-friendly. We believe that distance education is one way to help students become actively engaged in the construction of knowledge only if the programs and courses are designed well.

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