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The Progression of E-learning throughout Health Science Education

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INTRODUCTION

The technological advancements of the 21st century brought about immense changes in the way we interact, communicate, learn, and experience life on a daily basis. One great example of this is e-learning, with the traditional and scenario based learning approaches. E-learning makes use of the various computer software programs, virtual classrooms, electronic and digital technologies. The e-learning initiative is taking over classrooms across the United States and revolutionized the way students learn and professors teach, reducing the need for in-classroom presence and allowing the convenience of at-home learning. Often time educators incorporate computer and scenario based learning in addition to the face-to-face approach in order to enrich the learning experience. This new form of learning is sweeping through classes across nearly every imaginable field of education but this paper focuses solely on the health science field and how technological knowledge is essential in maintaining a career in this and any profession.

BACKGROUND

E-learning is "the use of Internet technologies to enhance knowledge and performance and comes in two forms, traditional and scenario-based e-learning (Ruiz, Mintzer, and Leipzig, 2010, p. 207). With the advancement of technologies and developments in the medical field, increasing demands are now placed on the educators of this field to implement the e-learning approach to students to maximize the potential transfer of knowledge from to student to teacher, without requiring the need for physical presence to educate and allowing students to work at their own pace in learning the extensive amount of material covered in health science. The traditional forms of e-learning include "distance learning" and "computer assisted instruction" (Ruiz, Mintzer, and Leipzig, 2010, p. 207).

The distance learner receives instructions via technology across distant locations from a central site; examples of this include George Mason's "Blackboard" website, which allows students to access class instructions and lectures, submit assignments, view due dates, course syllabi and most importantly keep track of grades. In addition to distance learning, computer assisted instruction also uses computers to transfer information but specifically for "stand-alone multimedia packages for learning and teaching (Ruiz, Mintzer, and Leipzig, 2010, p. 208). Another form of e-learning includes "scenario-based e-learning" which in contrast to traditional forms of e-learning is more of an interactive inductive form of learning that integrates visual and kinesthetic performance by simulating reality based situations with visual stimuli and allowing the learner to problem solve in a situation basis returning feedback on the learners decision, not just strictly right and wrong answers (Kindley, 2010). Although this is a innovative and beneficial form of learning, the medical field has not yet adapted to this and chooses to focus on "competency-based curricula emphasizes the learning outcome, not the process, of education" (Ruiz, Mintzer, and Leipzig, 2010, p. 208).

POTENTIAL BENEFITS

Recent facilitators, such as professors and students of e-learning note the high quality of the technology's "learning delivery" and and overall learning enhancement (Ruiz, Mintzer, and Leipzig, 2010, p. 209). Obvious advantages of learning delivery include increased access to contest, easy updates and distribution, specialized instruction, "standardization of content, and accountability", with the latter being especially important when it comes to reliable and uniform learning curriculum, which do not rely solely on

the competence of the instructor (Ruiz, Mintzer, and Leipzig, 2010, p. 207). Things like, printing and re-printing are not required when e-learning is in use because of the ease of updating files and distributing throughout intranets, extranets, and online classroom websites. E-learning "offer learners control over content, learning sequence, pace of learning, time, and often media, allowing them to tailor their experiences to meet their personal learning objectives", which is very crucial to students in the medical fields because of the various intellectual demands and time constraints that educators and students both face (Ruiz, Mintzer, and Leipzig, 2010, p. 209). Many universities across the nation are taking advantage of this glorious technology. According to "Ken Haycock, professor and director of San Jose State University's School of Library and Information Science, the school has now become a "global e-campus," with curriculum including "web-conferencing software" and "audio and video synchronous class sessions," making adapting to technology an essential part of succeeding in college and above (Hartman, 2009, p. 48). San Jose State University is not the only university that requires essential computer skills as part of the instruction, this revolution is taking place across universities and high schools, George Mason University included and some fourteen "ALA accredited" universities across the nation offer online instruction as the only means of education (Hartman, 2009, p. 49). E-learning requires interaction which "evidence suggests is more efficient because learners gain knowledge, skills, and attitudes faster than through traditional instructor-led methods" and enhancing the overall enhancement of education (Ruiz, Mintzer, and Leipzig, 2010, p. 210).

FURTHER REQUIRED RESEARCH

E-learning is significant in the learning process and while it is effective in reaching students at a distance and allowing greater ease and material of information to be transferred across great distances, educators have yet to banish face-to-face learning, because both methods prove to be effective equally, although a study of 10,000 faculty felt that online education was inferior to face-to-face learning (Kittleson, 2009). In this technological era, it is still important to stress the human element of communication and learning, especially in the health science and medical fields that sometimes require intimate space with patients, such as physical therapists, physicians, and dentists, which requires knowledge of human boundaries, interactions, and relations, which seems to be fading in the 21st century.

CONCLUSION

E-learning is a revolutionizing technology that is expanding the amount of information being communicated across students, professors, educators, and eager intellectuals. Medical schools and universities across the nation are using computer and digital technologies associated with this along with in-classroom teaching in unison to better educate the generations to come, who are living in a technological savvy world. Scenario-based learning is still coming into fruition and most health science fields are not yet using this but the traditional e-learning approach is highly being used to produce competent and knowledgeable professionals for years to come.

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