**https://garciar.github.io/University-of-Essex-Richard-Garcia/**

**What?**

The elementary understanding of e-learning is that it is a form of learning that uses electronic communication; however, its implementation requires adept knowledge of the structure. This formed the basis for my research. I set out to internalize the technical aspects, strategies, and challenges involved. The questions arising from this were: what are the technical aspects involved in the implementation of e-learning? Who are the stakeholders? Which type of technology is used? What content is disseminated? What strategies are executed? And more importantly, what are some of the challenges encountered?

The research question was thus set to be what are some of the technical aspects, strategies, and challenges on the implementation of e-learning? In order to get an informed answer to this question, scholarly research was required. I drafted a plan that included a timeline that I would use to complete the research. Ethical considerations were a factor to consider; this involved obtaining permission from relevant authorities that would play a role in the development of this research and obtaining consent from individuals interviewed on whether publishing their thoughts on the matter was okay.

Data collection was the next step. This involved a combination of both scholarly research and fieldwork. Scholarly research included both digital and physical reference books, journals, and articles. Fieldwork included interviews with the institution with and without an e-learning framework, distributing open-ended questionnaires, and conducting surveys on all e-learning stakeholders.

From the research, I obtained various technical aspects. These were: Stakeholders, which included teachers, institutions, governments, parents, and students; Technology such as massive open online courses (MOOCS), synchronous versus asynchronous learning systems, open education resource (OER), blended learning, flipped classrooms, and social media aided learning platforms.

I discovered several strategies, one that stood out was that which was vouched by the European Union for modernization of education using available technology and proper framework development for open digital content at all the levels of education to encourage innovative solutions to e-learning challenges. One of the significant challenges in implementing e-learning is access to reliable internet and the latest technology.

**So What?**

Interpretation of the data I obtained was based on insights from scholarly research. Apparently, learning is often a social cognitive task that often depends on physical interaction. However, online learning is virtual; hence void of physical interaction, this affects students since they get bored looking at a computer screen for a long time (Al-Jardani, 2020).

When emotions are involved in the learning process, then they are memorable. This is a strategy that I found intriguing since it plays two roles; one is that content consumed that emotionally attaches the learner are interesting, then, having fun while learning is one of the surest way of memory retention because it is often hard to forget a good experience (Berecz, 2018).

Social media platforms such as Facebook are used by some institutions to effectively implement e-learning (Staudt, Clair, & Martinez, 2013). Tools within the platform, such as groups and forums, aid in student-tutor interaction. Moreover, online communities improve interaction, sharing resources, and expert support. Other platforms such as Microsoft Teams, Google Classroom, and Zoom are often the standards in institutions.

In my opinion, e-learning should be categorized into two major groups either synchronous learning or asynchronous learning. Synchronous learning is real-time, meaning there is an instantaneous feedback loop among stakeholders, such as videoconferencing. Asynchronous learning is not real-time; hence the feedback may be delayed, such as emails.

Virtual classes accessible through the institution's learning management system on the web-based portal provide massive open online courses (MOOCS). The content within such portals is logically arranged, sorted, and categorized to meet specific learning outcomes (Chatterjee & Nath, 2014). These are accessible using electronic gadgets such as laptops, smartphones, desktops, and tablets. The fact that such gadgets are required becomes a challenge on students who do not have access to them. However, I observed that institutions mitigate this by building infrastructures such as computer laboratories and open wi-fi networks for students to use.

**Now What?**

The success of an e-learning system relies on the stakeholders' attitudes and their perception of technology. Therefore, the implementation of e-learning depends on this. Improving their perception can be as simple as practically showing them the beneficial technology by allowing them to interact with it frequently and offering prompt technical assistance when needed.

I learned that students switching from traditional learning to e-learning tend to find adapting to the technology frustrating; hence a periodic follow-up session after a virtual class activity should be done to ensure the students are comfortable.

Health effects related to computer ergonomics are an overlooked but critical challenge. I find creating awareness among the stakeholders about such health-related issues to be a practical solution. In addition, a crash course on the fundamental understanding of the use of a computer or any related technology should be offered to students whose first interaction with such technology is in the institution.

E-learning stands out as an effective learning method, and I suggest it be implemented in all institutions if possible. This ensures students are computer literate in the digital world.

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