

Chapter II

REVIEW OF LITERATURE

2.1 Introduction

This chapter provides brief summary relevant literature on online education, surge of online education during COVID-19 pandemic, perception on its effectiveness and gaps that exist in the present knowledge of the subject area.

Review of literature is an important precondition to actual planning and then the execution of any research work. It aids the investigator to familiarize and acquaint herself/himself with current knowledge and information about the studies done in the field or area in which the study is to be conducted. This helps in avoiding unnecessary and unintentional duplication, and guides the investigator in carrying out the investigation successfully.

Review of research studies relating to the problem under the study is essential for all researchers to develop a thorough understanding of work already done in that area. It provides rich background knowledge, which enables the investigator/researcher to perceive relationships among the variables and to determine what findings other researchers have reported on the problems related to the problem under study. The study findings and analytical framework constructed by the researchers are worth intimating. This research study has done a descriptive attempt for identifying the current state of implementation of online learning in context of changes in rise of COVID-19 pandemic.

2.2 Online Education

Oblinger D. G. & Oblinger (2005) suggest that the most difficult thing to define is online learning. In any attempt to 'define' online learning one comes across a plethora of terms. 'Resource-based learning', 'distance education', 'computer mediated communication', 'asynchronous learning' 'web-based training/instruction', 'internet delivery', 'virtual education', 'e-learning', are terms which represent approaches to the design of specific learning situations but which cannot claim homogeneity.

Watson J., et al. (2013) states that the online learning is a subset of distance learning. Online learning is supported or aided by Internet that enables the web-based delivery models in a structured learning environment. In online learning environment, teachers are separated from their students.

Tramell and LaForge (2017) liken the difference between face-to-face teaching and online teaching to taking a trip across the USA by car or train. In the face-to face version, the car journey, the driver has a map and a general route planned, the actual route and the stops along the way can be easily adjusted. On the other hand, the online journey, by train, involves a lot of pre-planning with little room to manoeuvre along the way.

Online learning is an extension of distance learning with its roots traced back to the early years of the nineteenth century (**Cavanaugh, 2004**). **Kaufman (1989)** stated that there were three generations of distance learning: the first generation, distinguished by the use of correspondence through post and the absence of any direct interaction between learner and instructor. The second generation, distinguished by the use of multimedia and content specifically designed for distance learning whereas the interaction was at the same level as that of the first generation. The third generation, distinguished by 34 using two way electronic interaction through internet for learner-learner and learner-instructor interactions.

John Sener (2012), argues, “Education has been, is being, and will continue to be cyberized”. He defines “cyberize” as “adapting to digital technology or culture”. Sener contends that the first era of online education has been devoted to providing access, while the second era has the potential to improve the quality of education as a whole, not just online education. It is not about changing the knowledge being conveyed, but merely shifting the way it is “transmitted, preserved, and generated”.

According to Paulsen (2002), online education is characterized by:

- The separation of teachers and learners (which distinguishes it from face-to-face education),
- the influence of an educational organization (which distinguishes it from self-study and private tutoring),

- the use of a computer network to present or distribute some educational content
- The provision of two-way communication via a computer network so that students may benefit from communication with each other, teachers, and staff.

Kearsly (2000) reported the following themes that shape online education: collaboration, connectivity, student-centeredness, unboundedness, community, exploration, shared knowledge, multisensory experience, and authenticity. Online education can also refer to instructional environments supported by the Internet.

Ascough (2002) suggested that online education has the following features: (a) It provides a learning experience different from the traditional classroom because learners are different, (b) The communication is via computer and World Wide Web, (c) Participation in classroom by learners are different, (d) The social dynamic of the learning environment is changed, and (e) Discrimination and prejudice is minimized.

Wenger E., (2004) states that the online education can benefit many communities in the rural area or remote place where reach of education is not there. It can easily reach the unreached masses. These communities can easily access information and gain lots of positive experiences and inspiration from online education.

Markham (2004) Different people have different learning styles and thus when online education is offered, it assumes utmost importance as it demands to be tailor made for the needs of individuals. The way it contributes to a person's preferences and thus individuality, is what makes online learning so looked-for. Since a person's learning style depends on their upbringing, how they access information as well as how they obtain skills, each individual has a different way internalizing what is taught to him/ her.

Garrison D. R. and Kanuka H. (2004) states that there are many benefits of online education technologies but they come with their own set of challenges and problems. Understanding the terminology used itself is very confusing in Online learning. As the introduction of new words makes it very confusing like blended learning. Many educators believe that their usage of text based asynchronous technology with traditional practices of learning is blended learning.

2.3 Role of Stakeholders in Online Learning

Carril, Gonzalez Sanmamed, & Hernandez Selles (2013) report that the necessity of using Information and Communications Technology (ICT) in online teaching changes both the nature of the teaching and learning processes as well as the need to develop ICT and other pedagogical skills (Carril et al, 2013). As the online environment changes and new technologies become available, the nature of the online educator role will change.

Copolla et al. 2002 presented the fact that, with the online learning teachers themselves view the change as a move from being a knowledge expert to a facilitator or a move from 'the sage on the stage' to the 'guide on the side' .

Chang et al. (2014) acknowledges a “paradigm shift in perceptions of instructional time and space, virtual management techniques, and ways of engaging students” This shift in perceptions results in new roles for the online educator as they move from the traditional distance education and/or face-to-face teaching to online learning environments.

Alvarez et al. (2009) focused on using the roles of the online educator to help identify the competencies and the associated tasks that are required to fulfil the roles. They examined both the literature in the area, and recent professional development activities that had been available in the universities associated with their project. They concluded that there are three roles unique to the online environment:

- (1)A designer/planning role, which includes course planning, organizing, leading and controlling;
- (2) A social role which is concerned with influencing students' relationships with their peers and educators and
- (3)A cognitive role, which “deals with mental processes pertaining to perception, learning, information storage, memory, thinking and problem-solving”

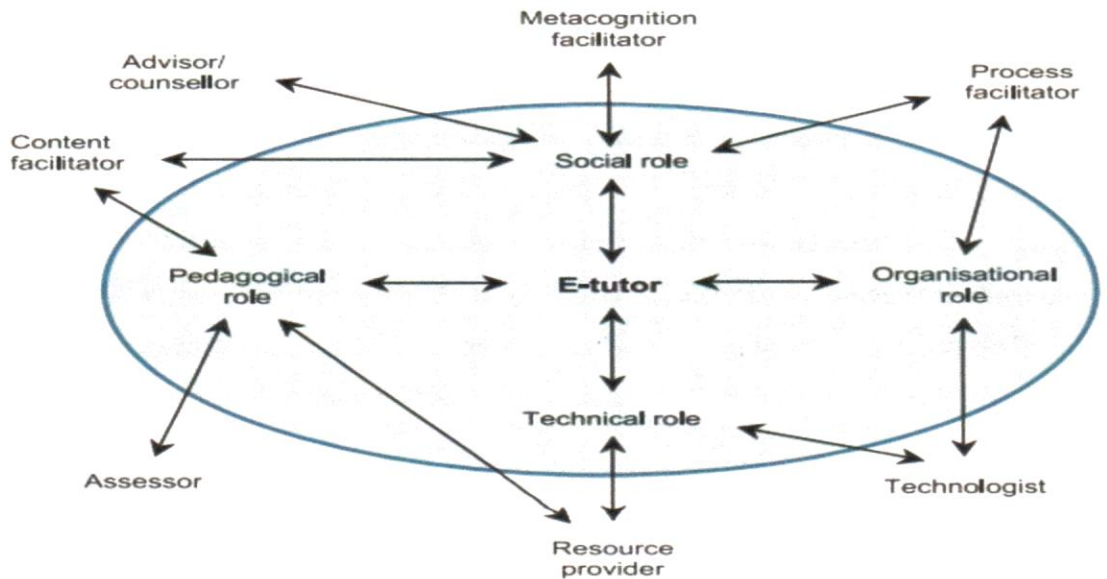


Figure 2. 1: Role of tutor online (source: Gold et al., 2010)

Tamargo F. A. (2010) has studied that the online education encourages the student to be more open to communicate their ideas, views, and opinions. In Online Education the student feels free to express his opinions. He also adds that face to face education can be pressurizing for the student because of the environment. The study suggests that online education is more dynamic in comparison to face to face class. A student and a teacher can be more accessible to each other in the online teaching. There are some obvious benefits of online learning but they come with their set of challenges and unfortunate consequences

Frey (2010) proposed that, on online learning, teachers are rarely the lone provider of instruction. Instead, teachers work closely with parents to help students achieve their learning objectives. Additionally, parents' involvement in K-12 online learning is as important to student success, as it is in all learning environments.

Black (2009) reported that in a fully online learning environment, parent encouragement, reinforcement, and modeling had a positive impact on student academic outcomes. However, he also found that parent instruction was negatively correlated to student academic achievement. This negative relationship was particularly relevant because

within fully online learning environments, parents have consistently been described as their child's "learning coach".

Gonzalez-DeHasseta et al., 2005 suggests that parental involvement empowers children to control their environment and provides an improved sense of intrinsic motivation for the learners. Likewise, the parents appear to bestow their beliefs and transmit their educational values from themselves to their child. Although these findings are based on traditional learning in a physical building, one could expect similar results when studying parental involvement in online settings.

Petride's (2002) study on learners' perspectives on web-based learning also reported that some participants felt a lack of immediacy in responses in the online context in comparison to what could typically occur in a structured face-to-face class discussion. This appears to be especially obvious in asynchronous online discussions, when students have to wait for others to read and respond back to their postings or e-mail messages.

2.4 Studies related to rise in the pandemic and its effect on learning:

Abdulmir, A. S. et al., 2020 demonstrate the need for readiness of countries in the cases of the pandemic in the direction of education. Although, strangely, children are found to be protected from severe or deadly critical infections, they can become the sources of spread, which was the main reason to close the schools worldwide.

Cakir Z et al. have provided the mathematical modeling approach that concludes, "In the case that sufficient precautions are not taken, or precautions are reduced, the course of the pandemic may show a very fast change in the negative direction", so the social isolation has to be applied.

A study by Majumder et al., indicates that contamination due to contact with the infected person is the most significant alternative of the spread of Coronavirus. A study by **Uscher-Pines et al., 2018** admits that, "During an evolving influenza pandemic, community mitigation strategies, such as social distancing, can slow down virus transmission in schools and surrounding communities.

A study by **Brazendale, K et al., 2017**, state that prolonged school closures and home confinement might have the negative effects on children's physical and mental health. The "psychological impact of quarantine is wide-ranging, substantial and can be long-lasting" (Brooks S. et al., 2020).

Currently worldwide, the education sector is facing a huge impact as a result of this pandemic, with educational institutions forced to shift their teaching to e-learning and blended learning modes. The **World economic forum** reported a surge in the use of language apps, virtual tutoring, video conferencing tools, and online learning software in the last three months. India, too, is witnessing an e-learning boom. Classes on Zoom, Whats app and Skype are becoming the norm for students, parents, and teachers. Online classes are become a significant approach to supply education in educational institutions and experiencing rapid development.

Nambiar, D. (2020) deciphered that student and teachers' perceptions are valuable to educational institutions planning to adapt online mode of teaching in the future.

Hasan, N., & Khan, N. H. (2020) showed that students enjoyed learning through online mode, if proper facilities were accessible to them. They suggested teachers and institutions to strengthen the features liked by their students including involvement and interaction, flexibility, comfort and accessibility of materials and to modify elements that hinder their learning in online environment that include poor network connection, distraction, lack of support and concentration, etc.

Kebritchi et al., 2017, suggested there are many researches explains that the limitations of online classes, which say that online classes are convenient, less costly and easy to access, so these factors made differences between online learning and face-to-face learning .

Kulal, A., & Nayak, A. (2020) concluded that teachers are not supporting for implementing online classes without proper training and proper infrastructure facilities like network and computers. They also suggested Online learning has a more significant role to play in the future, but it cannot be a replacement to traditional face-to-face classroom learning. A complete transition to online learning is quite tricky. However, we

cannot ignore the benefits derived from online learning. As such, there is a need to understand the obstacles that come in the way of accepting online learning and take corrective measures to overcome it.

From all these reviews, it observed that there is a need for the study in the area of perception of teachers and students in online classes that to in the rural areas, where the real problem exists. After the outbreak of COVID 19 in the entire world, the online classes became compulsory for education institutions. Therefore, a survey was conducted to collect opinions of the major stakeholders of education i.e. students, teachers and parents about implementation of online education in rural area and seeking their suggestion for its effective implementation.