

CHAPTER - II
REVIEW OF LITERATURE

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2.0.0 INTRODUCTION

A review of literature can be defined as the comprehensive of publications in a specific field of study or related to a particular line of research. The review of related literature gives the different studies which are related with the problem. These studies are important to complete the research work through information in the country as well as abroad.

The main purpose of review of literature is to convey to the readers about the work already done and the knowledge and ideas that have already been established on the particular topic of research.

In the context of a dissertation the literature review provides a background to the study being proposed.

2.1.0 RELATED STUDIES

This contains a summary of the research regarding online learning practices that are appropriate for hearing impaired students. There is extensive theoretical literature on online learning ranging from position statements to scientific research data that were deemed appropriate for the understanding of this study. The literature review covers a number of thematic areas with respect to the experiences of hearing-impaired students studying through online education. Empirical literature consulted for this review was located with the following phrases: Comparison of face-to-face and online education, studies of effective online teaching and learning methods, benefits of online education, motivational factors for online education, student and teacher perceptions of online courses, barriers, challenges, and criticism related to online education, standards of evaluating online education, and experiences of hearing impaired students undertaking online education. Summaries of these studies in the following sections are intended to build support and context for this investigation. However, the major area of this study explores

the experiences of hearing-impaired students who are enrolled in online education. This specific focus aided in understanding the major areas that attract online education students while also exposing the disadvantages and challenges that such students face while engaged in an online learning program. The review of literature covers a number of thematic areas related to the experiences of hearing-impaired students learning through the mode of online learning.

Bayrak and Boyaci (2002)

They found in that Online education requires a paradigm shift for all stakeholders of education including teachers, educational administrators and managers, politicians, policy makers, and others. With the rapid advancement in the information and communication technologies in the last decade, the conception and application of terms like “information” and “communication” have changed considerably. This change is evidently portrayed in a variety of definitions of “distance learning.” In the times of modernity, the phrase “distance learning” implied postal correspondence and telephone communications. With the recent advancements in computer and telecommunication technology, it has risen to a new advanced level. Through the use of email, the Internet, and video and audio transmission, better learning modules can be developed. These new technologies are either used as key constituents of the learning process or as the base of issuing instructions. A rapidly increasing number of learners desire and require schedules that are non-traditional and flexible, and online learning has the capacity to fulfill their needs in a more cost-effective manner and in less time than traditional classroom learning. The world today introduces computing and computer courses to children from a very young age. This is attributed to curriculum change and development in addition to the increased availability of learning tools and equipment. Curriculum change can be viewed as a result of the changes in the requirements of the job market and the technological projections in the future. As a result, students have prior, basic, and crucial knowledge of the computer and its benefits in their own lives.

Kashif (2009)

He noted that the advent of online education has filled obvious gaps in traditional face-to-face education. One of these areas is assessment. The traditional educational system's assessment process requires greater scrutiny and more materials, which require storage space and capacity and necessitate additional cost (Restauri, 2003). Gottwald (2005) showed that needing additional resources, especially money, hinders learning centers; these costs are directly transferred to students through their tuition fees. Conversely, one might assume that online education uses very few multiple-choice assessments due to the level of assessment required in higher education. As noted by Pribesh et al. (2006), an assessment should encompass unstructured questions in order to facilitate a keen and detailed analysis of the students' capabilities and knowledge, even when the assessment is administered remotely. As a result, it seems that face-to-face education is best for lower levels of education, primarily to create a school-environment mindset. From a lay understanding of online education, the mechanisms used as building blocks to the program are all an extension of the traditional model of education in both content and form. This implies that the flow of education or information from the teacher downwards is the same in online learning. This, therefore, qualifies the fact that the form or method used in transfer of education content remains the same with slight changes on aspects such as the interface between the teacher and student. The content adopted in the online education program is mainly an extension of the content within a field of study. An interpersonal interaction between the instructors and the students does not automatically occur in online education.

Mancuso (2008)

He reported as a disadvantage that online learning does not allow students to obtain immediate answers to their questions from the instructors. Unlike the face-to-face educational system in which instructors instantly answer questions, learners in online programs must wait, sometimes for hours, before receiving responses from their instructors. With the constantly increasing numbers of online education students, maintaining individual communication has become problematic. As a result, some teachers have decided to use an internet platform as their only form of communication.

Ragan (1999)

He says that obviously, defining and communicating to prospective online education students “what is to be taught, and what is to be learned” addresses the tentativeness of each participant’s role and responsibility. The competence of this communication improves with experience. Ragan affirmed that the adoption of new pedagogical strategies, including the use of electronic communications technologies, is essential for online education success, especially since online education reduces professional and personal interactions. Ragan noted that the success of online education largely relies on informing students and faculty of the support methods (technical or instructional) so that they can adequately practice them. The objective is to allow online learners to take responsibility for their own learning experiences, thereby freeing instructors to focus their time and energy on building a truly active learning experience.

Wilde and Epperson (2006)

Their study showed that students perceive self-discipline, motivation, flexibility, technical experience, communication, and organizational skills as contributing factors to their success in online learning. On the other hand, instructors need similar skills, in addition to a dynamic presence and knowledge of both the subject area and information technology. Some students prefer interacting in web-based classes because they feel more comfortable communicating in such an environment. Extensive discussions often dominate the bulletin boards and aid in the understanding of most learners. Another perception is that online-learning program’s focus should extend beyond merely covering the syllabus, and that instructors should incorporate multicultural aspects into their study plans in order to meet diverse interests. The survey of in-service teachers at Ohio State University revealed a number of issues inherent to online learning, especially multiculturalism. Multicultural knowledge is remarkably important when students form a class that is representative of cultures from around the world. At the same time, it may be difficult to validate diverse cultural interactions

in online education. Students can easily impersonate other people or assume false identities, especially in chat and discussion forums.

Bowman (2006)

On the effectiveness of online education, Technology is an essential component of learning activities in many parts of the world. It offers many benefits to the educational process, such as easy access to study resources and flexibility for learners and instructors. Although flexibility, convenience, and self-paced assignments are appealing, they necessitate self-discipline, motivation, initiative, and technical skills to succeed in online learning. One participant explained that she felt comfortable using a computer to study but felt frustrated whenever the technology failed to work properly. Other students feel troubled by a sense of disconnection and independent inconvenience. The learning process rarely proceeds flawlessly; one problem that online education students and instructors have perceived is the unreliability of the Internet in some parts of the world. This issue is a serious one, since the Internet is the primary tool of the online education process and lack of Internet dependability may cause instructors to lower their standards.

Anita, Stinson and Gonder (2002); Giorcelli (2004)

They opines that what is important is not the physical place in which deaf students are situated, but the capacity of the educational systems in their totality to find solutions adapted to the characteristics of the deaf students that permit their academic, social, emotional, and linguistic development. These concerns are important in the planning of educational services for deaf students, and especially in the consideration and the acceptance of the double and complex linking of deaf people as a collective group with the company of hearing individuals. Because of this, the family of the deaf students, the school, and social services should offer them opportunities to develop abilities and competencies that permit them to grow as capable and confident people who act more autonomously and as satisfactory as possible, both in social and academic contexts.

Powers (1996); Ainscow (2008)

They reported that Inclusion is not only a place but also, in essence, an attitude and a value of deep respect of the differences and commitment with the task, which are opportunities and not obstacles. Therefore, the educational experience accumulated in years shows that the educational contexts, which are specific and regular, offer high-quality education. A high-quality education for Deaf students should favor access to learning on equal terms to their hearing counterparts in school. This implies that the school needs to enable Deaf students to truly understand the situations of the classroom and participate in it, which requires them to employ sign language. This is in favor of the situations that enable the learning of the oral and written language and the establishment of friendly relations between Deaf and hearing individuals, which promotes the harmonic development of their personality, helping the students to grow in a bicultural environment.

Keatin and Miru (2003)

According to them, it is necessary to focus onscreen space and time management in the development of e-learning platforms for deaf students, who have limited access to knowledge and information in learning settings that result in their linguistic deficit.

Lee and Winzenried (2009)

They recommended that teachers and students prepare for technological improvements before these technologies are implemented. This method would increase security among teaching staff and increase opportunities for students to explore and improve their learning abilities. Providing access to resources and facilitating the use of those resources is difficult in online environments because most online platforms are customized for individual learning needs in specific fields of study. A careful consideration of the chosen type of technology can lead to positive results and attitudes. Beneficial attributes of technologies include flexibility, convenience, and the ability to allow self-paced learning. Online education students must develop self-discipline, motivation, initiative, technical experience, and the ability to adapt to newer platforms and trends. Online education requires continuous assimilation. After the students and teachers become comfortable with a single mode, then other methods can be implemented. In this way, a complex

system can be instituted gradually, thereby reducing the number of hurdles and optimizing available resources.

Myers and Fernandes (2010)

According to them, the focal points and matters that establish Deaf research in the 1970s have stabilized into a perceptive standpoint toward altering historical circumstances and the diversity of the lives of twenty-first century Deaf people. In the United States, the average 8-year-old hearing students and the average 18-year-old hearing-handicapped students had equal standardized reading achievement scores, which remained nearly constant from the 1970s to the 1990s.

Bochner and Bochner (2009)

According to them "hearing loss alone does not account for a particularly large share of the variance in reading achievement". Deaf children may begin to learn to read in the same ways as their hearing peers do, but "literacy development typically does not proceed at a pace considered average for hearing students".

Toscano, McKee, and Lepoutre (2002)

They investigated deaf postsecondary students with highly developed reading and writing skills in terms of their "social, educational, and demographic characteristics" in order to identify the traits and factors that can reinforce hard-of-hearing individuals' academic literacy skills. Findings attributed the deaf students' strong academic literacy skills to "heavy parental involvement in early education and educational decisions, differing modes of communication but extensive family communication," and "high parental and secondary school expectations".

Willems (2005)

He looked at the purpose of writing for children who are deaf or hard of hearing. For seven months, he observed and collected writing samples of children five to six years of age who were enrolled in a self-contained auditory-oral kindergarten program. After investigating the writing skills of deaf children in public schools, he reported that only 17% of these deaf students had above-average scores on story construction, contextual language, and contextual conventions while 32% garnered average scores and 51% had below-average scores. Despite their struggle with the written

language, hard-of-hearing children with available opportunities to write can do so considering the cohesion of their writing skills development and that of their hearing peers. Similarity in the written language development of deaf children and their hearing peers may imply that similar approaches to teaching writing skills may be suitable for both deaf and hearing children.

Costa and Dimuro (2002)

They define sign writing as an applied writing system for deaf sign languages made of a collection of "intuitive graphical-schematic symbols and simple rules for combining them to represent signs" and SWML as an XML-based language written in sign writing used to encode sign language texts" in a manner that does not depend on computer platform and an application (p. 202). Sign language texts, therefore, can be both obtained as output from and "entered as input" to any type of computer program that perform "any kind of language and document processing", including translation, animation, search, spell-checking, dictionary automation, analysis and generation, and storage and retrieval. Through this process, the entire field of computational linguistics and natural language processing based on text is opened to the sign languages for the Deaf community. With a great emphasis on the visual representation of position and movement, sign writing is a symbolic writing system that naturally forms iconicity. This writing system involves more deaf individuals, which makes it a dynamic writing system that continuously expands and changes for the better.

Millett and Mayer (2010)

According to them, it is a daunting task to offer special training for the teachers of deaf students, considering that "the field often attracts teachers with hearing loss themselves". There are broad and deep materials that need to be dealt with and rigorous teaching workshops are imperative. More specifically, there is a need to have instructors from various fields and to integrate new materials with the teacher education program.

Downing and Holtz (2008)

According to them, students have real opportunities to use the content language of every theme in reading and writing in the print format through online education, which has advanced beyond the typecast of communication assignments. With the technology allowing them to observe their

performance in the teacher training programs, faculty members can capitalize on the potential of their students and raise the bar for the performance required from their students. Instructors can deeply explore the parts of teaching content that in a text-only format could otherwise appear unattainable through their ability to improve intricate content with hypertext media, images, and video. From written structures of planned teaching diagrams and paper writing, online learning advances towards more substantial outputs. Pre-service teachers have to follow directives for practicum experiences and student teaching as mandated by the deaf education program in the university irrespective of the location of the online students. These online students are provided with wide-ranging opportunities to obtain experiences to teach deaf students in classrooms and schools in their own areas. Through the curriculum and the technological innovation, students use textbooks based on research to exhibit profound knowledge using the formation of visual multimedia-based demonstrations of both efficient instruction and evaluation systems. Required to perform class-related and practical projects in their own areas, students delve into their student teaching skills and observations with as many alternatives as possible.

Mitchell and Karchmer (2006)

They pointed out the need for teacher training to adapt in order to satisfy the varying needs of deaf education. These training programs have found that students are reluctant or not allowed to uproot their families and leave their jobs in exchange for a teaching certification and a degree with the growing demand for deaf education teachers.

Garberoglio, Gobble, and Cawthon (2012)

They hypothesized that deaf education teachers are likely to have decreased efficacy beliefs in due course, if their expectations of students lower as they add more years of experience. Findings from teacher characteristics analyses reveal that the efficacy beliefs of deaf education teachers who have been teaching for over a decade is significantly higher than those of the teachers who have been teaching for five years or less. However, other findings imply that through time, the efficacy beliefs of teachers are more stable.

Lichtenstein (1998)

In an investigation of "the relationships between various working memory (WM) recoding processes and English language skills," found that the visual codes, signs, and speech for the majority of the 86 college students from diverse educational settings who are prelingually deaf are not as effective for the English linguistic information retention in WM as the hearing individuals' speech code. On the other hand, results showed that there is a positive correlation between WM capacity and the capability to employ recoding processes that are based on speech. While the ability to efficiently employ speech recoding strategy increases, the use of sign recoding decreases. In general, results implied that English skill acquisition and grammatical processes are distinctively influenced by WM strategies and processes.

Schrum, Burbank, and Capps (2007)

According to them, online learning keeps on making significant inroads in the development coursework that connects field practice with teacher pedagogy policy and theory. In the online setting, users are allowed to present multimedia content, video, audio, and text-based communication through the synchronous learning. There were efforts to create available learning tools that are concentrated on printed texts in the English language. Wimba provided students who are native ASL users with a handy tool and enabled the communication between teachers and students through speech in live time and sign language.

Daly, Pachler, Pickering, and Bezemer (2007)

A situation that described in their study is not uncommon. A teacher who was reluctant to use online resources for teaching immediately noticed their benefits and began using them in her daily life. Daly established that the novelty of technology and the difficulty of sustaining the programs pose significant challenges to both instructors and students. The adjustment factor is directly associated with flexibility and convenience in terms of time management. Some teachers feel insecure and vulnerable when applying technology in online education programs. Most likely, that novelty represents an intermediate learning situation in which both teachers and students should be able to develop abilities to use technologies for learning.

Lyotard (1984)

He is one of the scholars who significantly contributed to the structure of the postmodern age. He suggested that the increase in the speed of information transmission is a significant characteristic of the postmodern age and creates a platform for local, cultural, and social elements to be propagated to other parts of the globe. Online education, therefore, opens up doors for cultural exchange, as individuals can selectively harvest the appropriate elements for their condition and situation.

Rovai (2008)

According to him, online education is based on the philosophy of constructivism, which is defined as the construction of knowledge from a learner's interaction with the environment. Learning is basically defined as the process that involves a permanent change in behaviour derived from experience. To enhance the learning experience and to know about the surroundings of any field of study, people contact experts of the field to help them understand the issues from a different angle. The experts teach their students by incorporating different methods of teaching that help them explain the facts and figures to their students. With the advent of online learning, learning has surpassed geographical boundaries, and teaching staff and students can interact on a global scale while enhancing their unique areas of interest.

Wallang M. G (2019)

Technology has played a major role in every aspect of our lives and it is now, indispensable in the sphere of human connection and communication. It has proved to be more of a boon for the Deaf community who rely on visual media for communication. i.e. sign language. With emerging technologies in a range of media services such as computer programs and applications, resource materials for education in sign language can be developed and designed with the aim of providing effective classroom transaction between teachers and students in an interesting manner.

Hashim H (2013)

The usage of e-learning environment in education involves a wide range of types of students, and this includes the hearing-impaired ones. Some adjustment or enhancement needs to be implemented within the e-learning

environment, based on the needs or the adaptability of the hearing-impaired students accordingly. E-learning environment is one of the most used techniques for educational purpose and this includes the education for hearing-impaired students. However, most e-learning environment available does not particularly can be useful to those students due to its feature which is lacking in terms of adaptability. They often encounter problem in accessing the information available in terms of understanding it and using it in a proper manner. Therefore, in order to assist these hearing-impaired students in accessing the information adequately, the e-learning environment needs to be developed and designed according to the needs of the hearing-impaired students by adding or enhancing some features within the e-learning environment.

2.2.0 CONCLUSION

This chapter reviewed literature from the context of the entire online education environment, including all fields of study that offer online courses at higher learning institutions. Specifically, this chapter reviewed literature related to: Online education in post-modernity era, comparison of face-to-face and online education, studies of effective online teaching and learning methods, benefits and motivational factors for online education, students' and teachers' perceptions of online courses, barriers, challenges, and criticism of online education, standards of evaluating online education, and experiences of deaf students undertaking online education. Exploring these areas can aid in the development of structures and modes of operation in online education. While every theme discussed above is important, none really address the main idea behind this proposed research, which is the lived experiences of deaf students undertaking online education. Surprisingly, in spite of the growing research in education and online studies, there are but a few literature reviews related to studying online for deaf students. Preceding studies conducted in this field have constructively discussed qualitatively the experiences of students learning online, but mentions nothing concerning deaf student's experiences.

The purpose of this study is to provide a better understanding of how deaf students perceive online learning by researching lived experiences and bringing attention to needed accommodations that might bring online learning up to an equal learning standard for both the hearing and deaf student body. In general, this study aims to investigate the advantages deaf college students enjoy from online learning over the mainstream classroom setting. In particular, three skills of deaf college students, which are writing, reading, and English literacy, will be explored on the basis of the impacts of online learning on twenty-first century postsecondary education for deaf students. It is quite true that difficulties exist as mentioned from various students through the preceding research done. However, the experiences of deaf students could be different judging from the use of sign languages and various means for studying and practice. Online education programs consume relatively more time due to the kind of technology applied such as discussion boards, chat rooms, and e-mails. Howland and Moore (2002) have noted that much time is spent on discussion boards in comparison to writing method. On a general note, there is a sharp contrast and gap in the research, the potential research studies or intent to study experiences gained from online classes. However, the reviewed literature point to general online experiences. The research is thus vast and not specific. In this case, we understand that the reviewed literature discusses online experiences, but courses and areas of specialization differ. It is explicitly evident that the reviewed literature is inadequate, vast, and non-specific, as research needs to be specific and embracing.