**Unveiling the Virtual Classroom: An In-depth Analysis of the Online Education System**

**Literature Survey**

* The unprecedented situation of uncertainty caused by the COVID-19 pandemic in 2020 forced the Indian education system to move to digital learning and teaching to fill the gap created by suspending classroom teaching across the country. Technological development and the Internet have changed the lives of people immensely and have also brought a huge change in various fields (Nadikattu, 2020).
* The majority of countries worldwide temporarily closed educational institutions to contain the spread of the COVID-19. According to UNESCO (2020), 191 countries have implemented nationwide or localized school closures, resulting in over 91% of enrolled students, or 1.5 billion people, not being able to go to school as of April 20, 2020 (Lamrabat, 2020). UNESCO has supported countries in their efforts to mitigate the immediate impact of school closures, particularly for more vulnerable and disadvantaged communities, and to facilitate the continuity of education for all through remote learning (UNESCO, 2020).
* Fast research growth and technology have made distance education easy (McBrien et al., 2009). “Most of the terms (online learning, open learning, web-based learning, computer-mediated learning, blended learning, m-learning, for ex.) have in common the ability to use a computer connected to a network, that offers the possibility to learn from anywhere, anytime, in any rhythm, with any means” (Cojocariu et al., 2014).
* Not only the teachers but also the students are facing challenges due to a deficiency in proper learning attitudes, lack of suitable materials for learning, more involvement in classroom learning, lack of self-discipline, and the inadequate learning environment at some of their homes during self-isolation (Brazendale et al., 2017).
* Using a qualitative content analysis approach, the study conducted by Sun and Chen (2016) reviewed 47 published studies and research regarding online teaching and learning since 2008. Their study primarily focuses on how theories, practices, and assessments apply to an online learning environment. Some prominent factors required for effective online instruction included well-designed course content, motivating interaction between the instructor and learners, well-prepared and fully supported instructors, creation of a sense of online learning community, and rapid advancement of technology Sun and Chen (2016).
* In their systematic analysis, Navarro and Shoemaker (2000) observed that the learning outcomes of students having online classes were as good as or better than traditional classroom learning, irrespective of the background characteristics of the students. The student learners were highly satisfied with online learning.
* Videoconferencing tools such as Google Meet, Zoom, and Microsoft Teams have been playing important roles in delivering online lectures and organizing discussion sessions. In fact, these platforms typically support slideshows and have several useful features. A number of universities and institutions of higher education have been disseminating course material through their official websites (Chatterjee & Chakraborty, 2020).
* Several countries were equipped with significant infrastructure for online education before the pandemic hit the world (Mishra et al., 2020). Despite this, not all universities were prepared to shift to complete online education. There are some empirical studies that suggest that students have a better learning experience in a physical classroom than through online education (Bojović et al., 2020). Students miss the assistance they obtain from their peers in classrooms and laboratories and access to a library (Aguilera-Hermida, 2020). However, students believe that online education facilitated the continuation of their studies during the pandemic (Mishra et al., 2020).