



Media-based Teaching-Learning and Associated Advantages and Challenges in ODL: A Review

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ABSTRACT

Open and Distance Learning system has been a catalyst for the holistic development of both individuals and any nation. This system has effectively leveraged media and technologies to ensure smooth educational transactions and fulfilment of learning outcomes of any educational programme or course. In recent times, diverse ICT tools, innovative media and technologies and online platforms have emerged for teaching-learning processes. Therefore, learners have various digital learning resources, media and educational technologies available before them to choose and implement these for learning purposes as per their convenience and preferences. In this context, present paper tries to trace the feature of distance education and role of media in teaching and learning at distance. More specifically paper tries to highlight the role of media and technology in facilitating teaching-learning during Covid 19 pandemic and afterward besides highlighting advantages and challenges that emerged during crisis period. This work is based on review of literature collected through different search tools and reviewed systematically. The findings and suggestions of the study may be useful for distance learners, teachers and higher education institutions to strategize media integration in teaching-learning in better way and as per the needs of learners and prepare themselves as per the prevailing situation and future demands.

Keywords: Media preferences, Open distance learning, Distance education, Covid 19, Digital divide.

I. INTRODUCTION

Traditional correspondence education that is also considered as the earliest form of distance education heavily relied on print technology where printed learning materials used to be delivered through postal services. However, with technological advancements, distance education kept changing delivery methods and has seen tremendous growth in last 50 years or so. This system has got tremendous popularity in recent times due to innovative methods of teaching-learning with optimal flexibilities. This system is being called as Open and distance learning (ODL), that is characterized as an alternative delivery system where students and educators are physically separated by distance, time, or both. This educational approach is although for all but it is particularly chosen preferred by adults who are working part-time and by disadvantaged groups who may not have the accessibility or flexibility to study full-time in traditional settings. This learner-centric system works on the philosophy of utilization and integration of various types traditional electronic media as well as new media not only for the delivery of the academic programmes but also for face-to-face interaction (academic counselling) as and when required and assessment and evaluation.

The Covid 19 pandemic has catalysed a significant shift in the education sector, pushing institutions to adopt virtual and digital strategies for teaching and learning. This transition has created an opportunity for digital learning, with platforms like Google Meet, Cisco WebEx, and Microsoft Teams playing a crucial role in facilitating online education. ODL has actually emerged as a key approach or method in almost all disciplines except some practical oriented disciplines like engineering, medicine, Architecture, and Planning, and Surveying etc. The shift to online digital education has allowed educators to create technology enabled pedagogies, academic courses, training programs and skill development opportunities, fostering a new hybrid model of education.

According to Nujid (2021), as teaching-learning methodologies transition from traditional to digital technologies in the current landscape, ODL has emerged as a globally preferred flexible learning approach. One of the key advantages of ODL, whether synchronous or asynchronous, is that it allows students to manage their study time and learn at their own pace. However, to make this system more effective and purposeful, challenges such as the low digital literacy, digital divide, poor support services, and high dropout rates need to be addressed to ensure equitable access to education. Despite these challenges, ODL aligns with the goals of the Fourth Industrial Revolution (4IR), emphasizing the importance of technology in education.

II. OBJECTIVES

Specific objectives of the present study are to:

1. Present overview of ODL and role of media and technology in distance learning.
2. Discuss media-based teaching-learning during and post-Covid 19 phase and describe advantages and challenges faced by learners and ODLIs.
3. Make necessary suggestions to help ODLIs to deal with such challenges effectively in future.

III. METHODOLOGY

In the present study, descriptive exploratory research method was applied. A systematic review of literature was carried out and findings were drawn from the previous studies to make some suggestions. Present paper basically presents summary of selected literature available on the themes of ODL, media preferences, online teaching-learning during Covid 19 and advantages and challenges that emerged during the pandemic. Existing studies related to these themes were searched with the help of keywords and retrieved from various platforms such as Google Scholar, Research Gate and Academia etc. These studies were systematically selected, thematically organised and analysed, and conclusions were drawn based on the synthesized results.

IV. REVIEW OF LITERATURE

Open distance learning has kept itself evolving and updating with the passage of time, especially in terms of integration of emerging educational technologies for academic purposes and learner support services. The studies conducted by Segbenya & Anokye (2023), Cano (2022), and Sultan & Kanwal (2017) offer valuable insights into the integration of emerging technologies and evolving pedagogies and practices. Therefore, abundant studies are available on different aspects of ODL and associated advantages and challenges, particularly in the context of instructional modalities, academic performance, and personal attributes that influence technology usage by teachers and students.

Comparative analyses conducted by (Das 1992) and Srivastava (1995) between traditional education and distance education systems provided valuable insights into the effectiveness of distance education system. Segbenya & Anokye's (2023) study underscores the multifaceted challenges faced by distance learners and emphasizes the importance of implementing effective coping strategies. Their recommendations, focusing on orientation, counseling, teaching facilities, feedback mechanisms, comprehensive modules, and competent tutors, are crucial for creating a supportive learning environment. Studies by Garrison (1987) and Pugazhenthii (1991), explored aspects such as self-directed learning, academic counseling, and the significance of contact sessions, contributing to present a deeper understanding of distance education dynamics. The focus then shifted to quality assurance and learning support systems, as evidenced by research from, Amritavalli (1987), Powar and Panda (1995), highlighting challenges and proposing strategies for improvement, including the need for Total Quality Management (TQM) in ODL.

The theme of empowerment and inclusivity in ODL systems was addressed by Jayagopal (1987), focusing on uplifting weaker sections and promoting women's empowerment. Kumar & Singh's study (2022) underscored the importance of skills development, capacity building and employment creation, especially among marginalized and socio-economic disadvantaged groups (SEMGs) to uplift their educational as well as socio-economic status. Recent studies by Ersoy (2023) and Mehra et al (2004) highlighted challenges faced by disadvantaged groups in online learning and advocated for adopting a holistic approach considering their specific needs. The imperative for continuous improvement and adaptation in faculty development programs (FDPs) for ODL teachers was emphasized by Asgar & Satyanarayana (2021), calling for enhanced infrastructural arrangements, policy discussions, practical sessions, and skill-based training to meet evolving needs of teachers and make FDP more effective.

Amini & Oluyide (2020) reported that despite high levels of computer and technology literacy, distance students often face challenges in leveraging ICT for knowledge creation. Qualifications emerged as a key factor influencing ICT competency, while gender played a minimal role. The study advocates for enhancing curricula and providing tailored support to bridge the gap between using ICT for learning and harnessing its potential for knowledge creation. Kothamasu (2010) unveiled that mobile learning has been instrumental in promoting both independent and collaborative learning experiences, enabling learners to identify areas for improvement and engage reluctant learners through dynamic and engaging learning experiences. Furthermore, it has been observed to enhance learner focus and self-confidence, contributing to a more personalized and effective learning journey.

Halili *et al.* (2015) and Hajar's (2014) studies delve into the nuanced interplay of gender dynamics and learning styles among distance learners while using videoconferencing for learning. Understanding these factors is vital for tailoring instructional methodologies that resonate with diverse learner preferences, ultimately leading to more effective and engaging learning outcomes. Ke & Zhou's (2024) research emphasizes the impact of online media preferences on enrollment strategies and the overall quality of distance education services. By tailoring enrollment propaganda to different gender and age groups and leveraging various new media platforms, institutions can enhance their outreach efforts and create a more personalized and comprehensive learning environment for students.

Cano's (2022) research provides critical evidence of the academic performance outcomes between traditional face-to-face and online distance learning modalities during the Covid 19 pandemic. The statistically significant increase in academic performance in online distance learning highlights the potential of digital platforms in supporting educational continuity and excellence, especially in challenging circumstances. Sultan & Kanwal's (2017) study delves into the relationship between personal attributes and technology-related factors, shedding light on computer anxiety and self-efficacy among distance learners. Understanding these dynamics can guide the design of tailored interventions and educational programs aimed at enhancing computer skills and reducing anxiety related to technology use.

Bridgstock (2016) and Duffy (2008) highlight the critical need for universities to adapt to the evolving educational landscape shaped by digital technologies. This includes aligning academic programs and courses with 21st-century skills, fostering a culture of continuous learning, and embracing innovative teaching methods. The concept of a learning ecology, as discussed by Duffy (2008), emphasizes the dynamic reorganization of content to cater to individual student needs. This shift towards personalized learning experiences mirrors the transition from "Push" to "Pull" models of education, where students actively participate in knowledge creation.

Chen & Bryer (2012) add to this discourse by exploring the underutilization of social media in formal learning environments, despite its widespread personal use. Their findings underscore the potential of social media in facilitating informal learning, enriching discussions, and increasing student engagement. Integrating social media strategically can bridge formal and informal learning, creating interactive and collaborative learning experiences.

The study conducted by Rahman *et al.* (2023) highlights that during second phase of pandemic, institutions confirm strong readiness for implementing ODL during COVID-19 and beyond, with Google Meet and Google Classroom being top choices. While online platforms offer flexibility and cost-saving benefits, concerns about academic dishonesty persist, necessitating upgradation and reforms to ensure high-quality education during and after the pandemic. Further research is crucial to address these challenges and optimize potential of online platforms for producing competent graduates in diverse learning environments.

According to Amir & Borhan (2022) students overwhelmingly prefer face-to-face learning (71%) over ODL during the pandemic. Synchronous learning was found highly favoured (49.4%) compared to asynchronous learning (32%) within ODL, with WhatsApp and Google Classroom being essential communication platforms. Students were generally satisfied with their commitment and understanding using ODL platforms but express moderate satisfaction with mental health and environmental happiness. A minor proportion (24.5%) of students reported dissatisfaction with mental health and happiness, citing challenges such as time management and unclear communication. These insights highlight the importance of addressing student preferences and challenges in learning design for a more effective educational experience.

Clauson, et al., (2013) found that pharmacy students exhibited some level of familiarity with social media platforms, although they tend to underutilize tools that could be beneficial for educational purposes. Among the social media platforms used, Wikipedia and Facebook were the most commonly reported. While these platforms were not originally designed for educational use, educators are increasingly turning to social media to address challenges related to diverse learning styles, critical thinking enhancement, and student motivation for active learning. To effectively integrate social media into education, a targeted approach is recommended. Which involves identifying specific social media tools that align with educational goals, such as RSS readers and collaborative writing platforms, and providing guidance to students on how to use these tools effectively. By doing so, educators can better engage students and cultivate the lifelong learning skills that is essential for success in the healthcare profession.

According to Nujid (2021) for ODL and particularly for communication between educators and learners, WhatsApp was found preferred platform. This seamless communication channel enhances the overall learning process and facilitates effective engagement between educators and students. However, he highlighted that students in remote areas face challenges such as limited internet coverage and slow bandwidth speeds, which can significantly hinder their learning experiences. These limitations pose substantial obstacles to their participation in ODL programs. Learners preferred recorded online slide presentations with audio to Internet-based live video lectures in two-way video and audio interactions. Online discussion boards and chat groups were less favoured than other types of media (Kobayashi, 2017).

Bordoloi et al. (2021) highlighted that the "one-size-fits-all" approach may not be effective in a country like India, which faces specific challenges. Before implementing online or blended activities, it's crucial to consider various factors such as the target learners' social, cultural, and economic backgrounds, age range, access to technology, and the readiness of educational institutions. Developed countries may have advantages in initiating emergency online teaching during crises, but this may not be applicable worldwide. According to the study, India grapples with issues like the digital divide. The pandemic has exacerbated these disparities, particularly impacting vulnerable learners. Addressing these challenges requires a systematic integration of technology in higher education keeping in view the capacity building of teachers and the use of affordable technologies.

V. DISCUSSION AND FINDINGS

Open and Distance Learning (ODL) has emerged as a globally preferred flexible learning approach, allowing students to manage study time and learn at their own pace. In the evolving landscape of this system, a rich tapestry of research has unfolded over the years, each thread weaving together crucial insights and perspectives. Numerous insights and research work showcase ODL policy frameworks, enrollment patterns, self-directed learning, technology integration, SEDGs empowerment initiatives and inclusivity and issues related to women's empowerment through online distance education. At the same time, challenges such as gender dynamics, academic performance, and social background and personal attributes influencing technology use were also explored in the studies reviewed. These studies advocated for adopting effective coping strategies, personalized interventions, optimized instructional modalities, need for tailored support to distance learner and strategic utilization of digital tools by HEIs.

The evolving landscape of ODL is intricately tied to technological advancements, learner preferences, and innovative strategies for teaching learning. Studies such as those conducted by Bozkurt Karadeniz & Kocdar (2017), Halili et al. (2015), Hajar, and Ke & Zhou (2024) highlight crucial aspects that shape the effectiveness and quality of distance learning. During the Covid 19, technological devices were the only option to be used for the educational delivery as face-to-face communication in a traditional classroom setup was not available. Rahman et al. (2023) identified strong readiness among students and their preferences for implementing online ODL not only during pandemic but beyond Covid-19 too. In the study Google Meet and Google Classroom emerged as the top choices for online platforms and these have shown the successful results. Although, according to Amir & Borhan

(2022), students overwhelmingly prefer face-to-face learning (71%) over ODL during the Covid 19 pandemic. Synchronous learning was highly favoured (49.4%) within ODL, with WhatsApp and Google Classroom emerged as essential communication platforms. Students express moderate satisfaction with their commitment and understanding using ODL platforms but cite challenges related to mental health and environmental happiness.

Bozkurt Karadeniz & Kocdar (2017) shed light on the pervasive use of Social Networking Sites (SNSs) among distance learners, showcasing the potential for integrating these platforms into educational contexts. Wikipedia and Facebook were commonly used by the students, while WhatsApp emerged most favourite tool for communication between educators and learners. This tool was found very effective in enhancing the learning process and facilitating effective engagement.

In view of these studies, it becomes quite obvious that a targeted approach is needed for integrating social media into education, aligning specific tools with specific educational goals and providing guidance on effective usage of these tools to engage students effectively. Further, there remains specific need for experimental research to unlock the educational benefits of SNSs and their role in enhancement of learning experiences and achieving learning outcomes of programs/courses. Studies, although also presented various benefits of the using media and technology during Covid and afterwards, various challenges were also reported i.e., despite the benefits of online platforms in terms of flexibility and cost savings, various health related issues also surfaced due to continuous classes and long onscreen interactions. A big chunk of learners faced mental health related challenges, besides problems related to time management and unclear communication. Concerns about academic dishonesty also persisted, indicating the need for upgraded mechanism especially during assessment and evaluation to ensure high-quality educational transactions during and after the pandemic. After coming across learners' individual characteristics and related problem during online education or learning through social media. According to Clauson et al. (2013), educators should explore ways for addressing challenges related to diverse learning styles, to enhance critical thinking of students, and motivate them for active learning.

The digital divide among different socio-economic groups in India, also emerged as a significant obstacle in providing equitable education in providing Slow or unstable internet speed also remained a major challenge as found during the study. Nujid (2021) highlighted that limited internet coverage and slow bandwidth speed in remote areas hinder participation in ODL programs. While Bordoloi et al. (2021) raised challenges related to diversity among learners, their specific technological requirements and advocated for a systematic integration of technology in higher education.

These studies collectively highlight the need for a multifaceted approach in ODL, encompassing technological innovation, media-based curriculum development, personalized instructional strategies, collaboration among stakeholders, incorporation of digital tools in more innovative way, pragmatic and holistic approach towards training and capacity building of teachers. These are essential for fostering sustainable growth and enhancing the overall quality of education in the ODL. By embracing these insights, institutions can navigate the evolving landscape of distance learning and deliver high-quality education that meets the diverse needs of learners growing in the digital age. However further research, quality assurance mechanism and continuous innovation are necessary to explore and maintain inclusivity, equity and accessibility. This shall also make governmental and institutional policies responsive to address evolving educational challenges and optimizing ODL and online platforms for producing capable, competent and skilful graduates in diverse learning environments in India.

VI. CONCLUSION AND SUGGESTIONS

The Open Distance Learning system works on the philosophy of providing maximum flexibilities, inclusive education and believes in reaching to unreached. Therefore, ODL has potential to accommodate learners at mass level. The evolution of educational preferences towards ICT, digital learning, online education, and blended learning has further expanded the ODL's scope and helped in achieving the objectives of this system meaningfully and successfully. The current educational landscape, especially amid Covid 19 pandemic and afterwards, strongly highlighted the necessity for adopting and implementing the technology-driven approaches for teaching and learning. During the pandemic, ODL institutions tried to utilised educational tools and media to ensure uninterrupted teaching and learning, despite the fact that neither these ODLs nor students and their parents were fully prepared to face such emergency situation. Studies confirm a strong readiness by ODLs for online distance teaching learning during the second wave of the pandemic but also identify numerous challenges like digital disparities, different media preferences, learning styles, study skills, technology phobia, slow internet speed, mental and physical health and time management etc. Thus, studies emphasized upon personalized and customized interventions to support learners in in the areas of efficient use of online platforms.

Thus, ODLs must realise that "one-size-fits-all" approach is ineffective, especially in countries like India, therefore to help students in a realistic way these institutions will have to adopt tailored approaches as per specific requirements of the regions and learners. Distance HEIs also need to work on educating students about adopting different coping strategies in stressful situation and handling issues related to mental health which was observed in digital learning environments. It was also reported that ODLs must create dynamic learning environment that empowers students with relevant skills, that ultimately will help these HEIs in transforming themselves into a more responsive and effective educational system in the digital age. Beside these, further research is also imperative to gain a more holistic understanding of media and technology usage, and confirming that after implementing education technology tools the desired outcomes are achieved or not.

VII. REFERENCES

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