Exploring the Impact of Online Learning (OL) over Conventional Learning (CL) on the Professional Development of MSW Students across India in the Post-Pandemic Era

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Background: The outbreak of the COVID-19 pandemic has generated unprecedented public-health concerns. Many countries have imposed lockdowns to reduce social contact and contain the spread of the Novel Coronavirus. It forced the institutes to change their teaching methods from Conventional Learning (CL) to Online Learning (OL), meanwhile, it badly effected stream like Social Work which is more focused of practical, and field works. **Aims and Objectives**: The research study aimed to investigate the impact and effectiveness of the OL over CL post COVID-19 Pandemic era in MSW students across India. **Methodology**: The Survey study design was used for the study. This study was conducted via online platform from various social work institutes across India (12 States). 391 participants were completed the study. All were given digital consent and followed by socio-demographic details and the scale (A modified self-assessment questionnaire for OL and CL) were used to assess participants' impact on OL over CL. **Results**: The results of the study revealed that, MSW students adapted (AT) to new learning technology, meanwhile theoretical learning (TL) and Practical learning (PL) were deteriorated without good direct supervision. State wise result shows that, West Bengal students were more capable in AT (44.06), TL (23.71), PL (34.14) and OL (34.14), while, Karnataka students were less interested in AT (38.54), in TL (16.52) Kerala students like to follow Conventional Learning, in PL (20.50) Telangana students are more prone to CL and lastly, Tamil Nadu students were most likely to follow CL over OL (27.83). **Conclusion and Implications**: The COVID-19 pandemic led a revolutionary change in the education system in India, these changes were adapted to a new teaching platform (OL). However, since then lacking a good practical supervision for social work education in India.

Keywords: Conventional learning, Online learning, COVID-19 Pandemic, Social Work

INTRODUCTION

The COVID-19 pandemic has led to unparalleled concerns about public health. To curb the spread of the Novel Coronavirus, numerous countries have enforced lockdowns, limiting social interactions. This has had a profound effect on education due to the closure of educational institutions. Teachers have been directed to use online platforms for instruction during the lockdown(Abidah et al., 2020). Raju (2020) suggests that innovative teaching methods are necessary to maintain education continuity and alleviate stress and anxiety during this period (Raju, 2020). The pandemic has sparked a digital transformation in higher education, with online lectures, teleconferencing, digital textbooks, online exams, and virtual interactions becoming commonplace (Kumar, 2020; Strielkowski, 2020). The adoption of online learning strategies has reportedly improved learning efficiency and performance (González-Sanguino

et al., 2020). However, the shift to online learning can be discriminatory towards disadvantaged and marginalized students. For instance, hearing-impaired students have been found to struggle with online learning. The closure of educational institutions during the lockdown has disrupted the education system and the teaching-learning process. It is crucial to understand the teaching-learning process during this crisis to develop effective interventions for uninterrupted education (IndiaToday, 2020).

The COVID-19 lockdown has significantly disrupted academic activities, and this study evaluates the learning situation of postgraduate students during the pandemic. While a large number of students are utilizing digital platforms for learning, many are encountering significant difficulties with online study (Kapasia et al., 2020). In this crucial time, teachers could use open-source digital learning and learning management systems for online instruction. A uniform academic plan should be established for universities and colleges, and an Education Continuity Plan (ECP) should be initiated to maintain the learning process during the pandemic. Educational institutions should be provided with the necessary infrastructure to manage digital learning during future health crises. Adequate funding is needed to enhance the education system and provide capacity development training to stakeholders in higher education institutions. Targeted interventions should be implemented to foster a conducive learning environment for students from vulnerable sections of society (Kapasia et al., 2020).

Global higher education institutions are increasingly integrating e-learning services into their systems, serving as an alternative or supplement to traditional learning (Lee et al., 2009). In response to emergencies like the COVID-19 pandemic, online learning is implemented to avoid in-person contact. Students are required to adapt to new learning roles through information technology to achieve academic success during COVID-19 (Qazi et al., 2020). The lockdown has had a significant impact on students, prompting a shift from traditional teaching to online learning resource (Abidah et al., 2020; Vaishya et al., 2020). The COVID-19 outbreak has triggered a digital revolution in education, characterized by online lectures, digital books, teleconferences, and virtual classrooms (Kapasia et al., 2020; Sutton & Jorge, 2020). Against this backdrop, the current study seeks to determine the learning status, learning mode, and study-related challenges during the COVID-19 pandemic.

Social Work Education: Post COVID 19 Pandemic

Distance learning lacks certain essential elements of the curriculum, such as internships, which assess students' capabilities and readiness to become qualified social workers (Azman et al., 2020). In social work education, the interplay between academic and practical learning is crucial. This involves socialization within the academic and professional social work community, exposure to complex real-world social practices, and reflection on the intersection of scientific knowledge, practice knowledge, and service users' perspectives (De Jonge et al., 2020). However, adapting teaching and learning methods presents didactic challenges. Research indicates that when undergraduate social work students feel recognized by instructors and peers, their motivation to learn and engage with course material increases (Rodriguez-Keyes et al., 2013). Despite these challenges, during the pandemic, social work universities have had no choice but to embrace distance learning.

To address this issue, our study focuses on the experiences of staff and students at different universities and Arts–School of Social Work in various states across India. Specifically, we explore the study-related challenges faced by the students during and after COVID-19, as well as how they adopted to new system of learning and technology. By understanding differences and similarities in their experiences, we aim to analyse the learning environment. Additionally, strategies will be developed to ensure students achieve positive educational outcomes even in challenging times.

OBJECTIVE

To find effectiveness of online learning (OL) over conventional learning (CL) for social work (SW) students in various states of India in the Post COVID-19 Pandemic Era.

METHOD AND MATERIALS

Method: The research study was conducted using an online platform, specifically Google Forms, to collect data from various social work institutes across India. The study employed an online survey study design. The primary objective was to gather a minimum of 100 samples, but by the end of the study, 391 students from 12 states of India had participated. All participants provided digital informed consent. The data collection was carried out in English, which served as the medium of language for the study.

The study cohort consisted of students who were pursuing their Master of Social Work (MSW) courses during the COVID Pandemic session (2019-2021). However, the data collection occurred after the pandemic period. To ensure consistency, only regular MSW course students were included in the study, while other categories were excluded.

Materials

The study utilized the following materials:

Socio-demographic Profile: This component captured relevant information about the participants, including their age, gender, educational background, and other demographic details.

Modified Self-Assessment Questionnaire for OE and CL: The questionnaire consisted of 35 items and was designed using a Likert scale format. Participants were asked to rate their responses on a scale of 1 to 5, with the following options: 1: Strongly Agree; 2: Agree; 3: As Usual; 4: Disagree; 5: Strongly Disagree
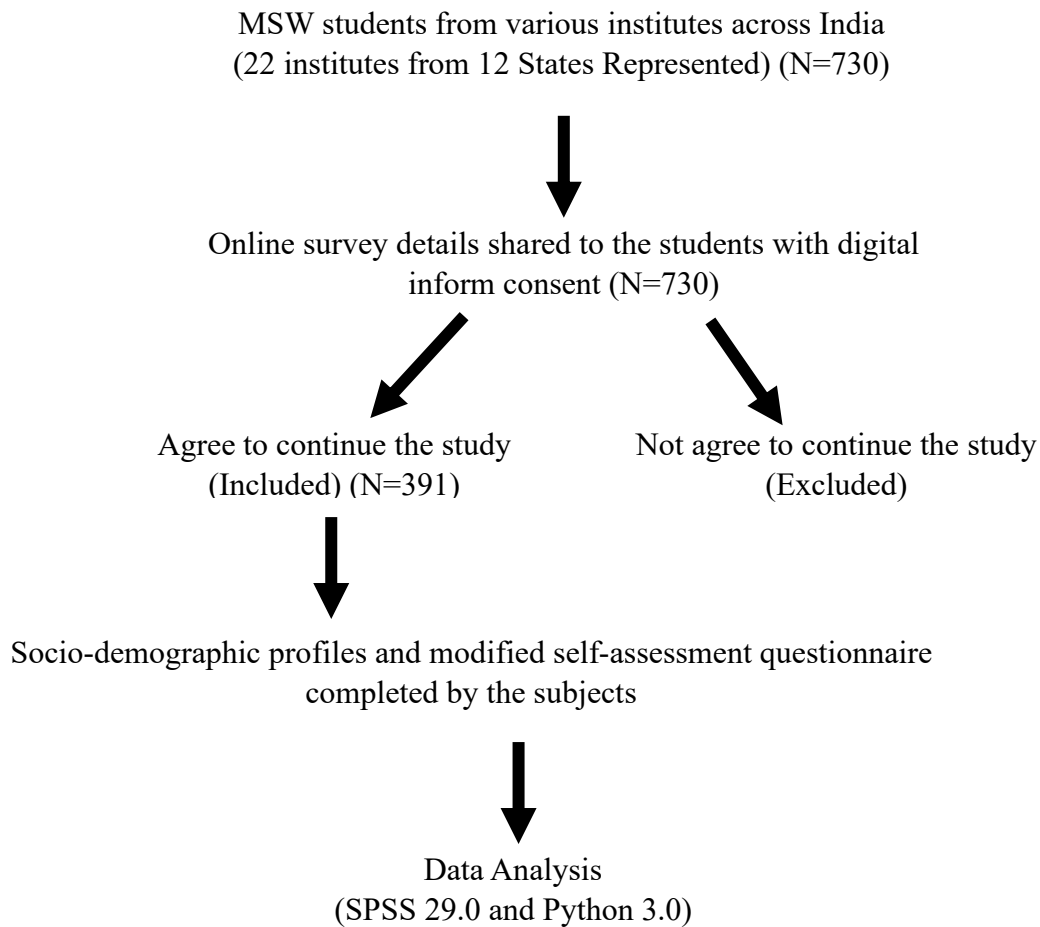
Subdomains of the Questionnaire: Practical Learning (8 items): Explored the effectiveness of practical learning experiences in both online learning (OL) and conventional learning (CL). Theoretical Learning (6 items): Assessed the impact of theoretical learning methods in OE and CL. Adaptation of New Learning Technology (13 items): Investigated participants' ability to adapt to new learning technologies in the online environment. Outcome of Online Learning (8 items): Focused on the perceived outcomes and benefits of online education.

Scoring System: A higher score indicated a preference for online education. A lower score indicated a preference for conventional education.

Scale Adoption: The questionnaire and its respective subdomains were adapted from a study conducted by Debbarma and Durai (Debbarma & Durai, 2021). The entire questionnaire was administered online to explore the impact and effectiveness of computer-assisted learning (CL) compared to traditional classroom-based learning (OL).

Study Procedure

Figure 1. Study Procedure

MSW students from various institutes across India
(22 institutes from 12 States Represented) (N=730)

Online survey details shared to the students with digital
inform consent (N=730)

Agree to continue the study
(Included) (N=391)

Not agree to continue the study
(Excluded)

Socio-demographic profiles and modified self-assessment questionnaire
completed by the subjects

Data Analysis
(SPSS 29.0 and Python 3.0)

Data Analysis

Data were analysed using descriptive statistics and frequency distribution to understand prevalence. The skewness test used to understand the normality of the data and it normally distributed dependent variables, so we used ANOVA to compare various states students of the MSW. We used IBM 29.0 for statistical analysis and Python 3 (libraries: NumPy, Pandas, and Matplotlib) for DATA visualization.

RESULTS

Of the 730 persons from the initial cohort, 391 were included in the study (Figure 1). The mean age was 23.68 years (SD, 1.70); 69% were female; 51% participants feel like expensive way

of education; 80% of the participants were using mobile phone as gadgets for attending online classes; 58% of the participants were agreed to fear of COVID. The mean average time spend on screen 7.87 hrs (SD, 2.33), while class duration was 4.04 hrs (1.47) (Table 1).

Each state's frequency is depicted by a green bar, with corresponding percentages labelled. The red line graph overlays the bars, showing the trend across states. Notably, Kerala (KL) has the highest frequency at 59 (15.09%), while Jharkhand (JH) has the lowest at 11 (2.81%). However, there is no clear pattern in the distribution of frequencies across states. The graph highlights variations in learning preferences and underscores the challenges faced during the transition to online learning in social work education (Figure 2).

The provided figure 3 illustrates a comparison of screen time and class duration across different Indian states.

Screen Time: The blue bars indicate the average number of hours students spend on screens for online learning. Screen time varies significantly among states, ranging from 44 to 479 hours. Kerala (KL) has the highest screen time (approximately 479 hours), while Jharkhand (JH) has the lowest (around 44 hours) (Figure 3).

Class Duration: The green bars represent the average duration of classes. Class hours range from 15 to 326 hours. Again, Kerala (KL) has the longest class duration (around 326 hours), while Andhra Pradesh (AP) has the shortest (about 15 hours) (Figure 3).

The figure 5 illustrates the disparities in Online Education and Conventional Education across various states. Although these differences are statistically significant, the effect size is relatively small, indicating that the impact on the variables measured is not substantial.

In every subdomain of the scale, West Bengal records high mean values (AT=48.98; PL=28.80; TL=24.57; OL=37.67). On the other hand, Karnataka shows a relatively low mean value for Adaptation of New Learning Technology (AT=38.53), Telangana for Practical Learning (PL=20.50), Kerala for Theoretical Learning (TL=17.15), and Madhya Pradesh for Outcome of Online Learning (OL=28.00), which is slightly lower than Andhra Pradesh and Tamil Nadu. In essence, while the disparities across states are statistically unlikely to have occurred by chance, they do not significantly influence the variables being measured (Figure 5).

The impact of Online Education over Convectional Education shows the following outcomes (Table 2);

1. Adaptation of New Learning Technology (AT): The average score is 44.06, with a standard deviation of 6.97, indicating a moderate spread around the mean. The variance is 48.61, which is the square of the standard deviation.

2. Practical Learning (PL): The average score is 24.76, with a standard deviation of 5.30, indicating a moderate spread around the mean. The variance is 28.12, which is the square of the standard deviation.

3. Theoretical Learning (TL): The average score is 21.18, with a standard deviation of 4.41, indicating a relatively lower spread around the mean compared to AT and PL. The variance is 19.45, which is the square of the standard deviation.

4. Outcome of Online Learning (OL): The average score is 30.48, with a standard deviation of 3.91, indicating a relatively lower spread around the mean compared to AT and PL. The variance is 15.29, which is the square of the standard deviation.

Table 1. Participant Socio-Demographic Profiles

| Variables		Frequency/Mean	Percentage/SD
Age (in years)		23.68	1.70
Gender	Male	120	31
	Female	271	69
How Expensive?	Less	80	21
	Same	114	29
	More	197	51
Gadgets	Mobile	311	80
	Laptop	80	20
Fear of COVID	Yes	226	58
	No	165	42
Time Spend on Screen (in hrs)		7.87	2.33
Class Duration (in hrs)		4.04	1.47

Figure 2. State wise representation
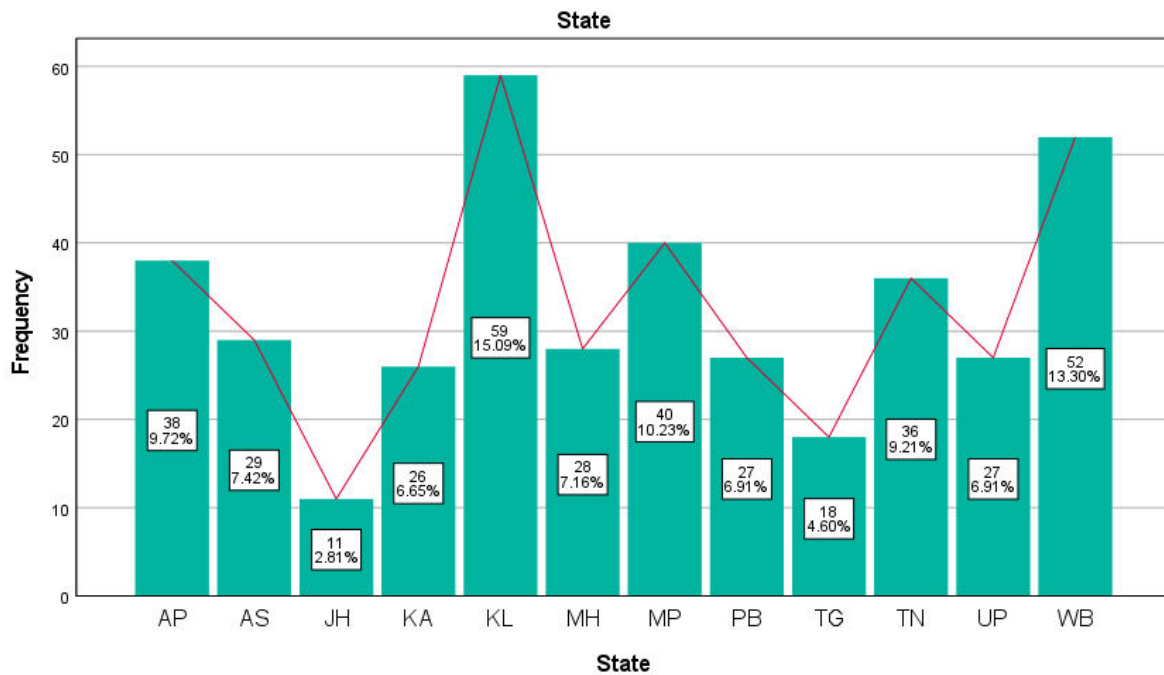
Figure 3. State wise Screen time (in hours) and Duration of Classes (in Hours)
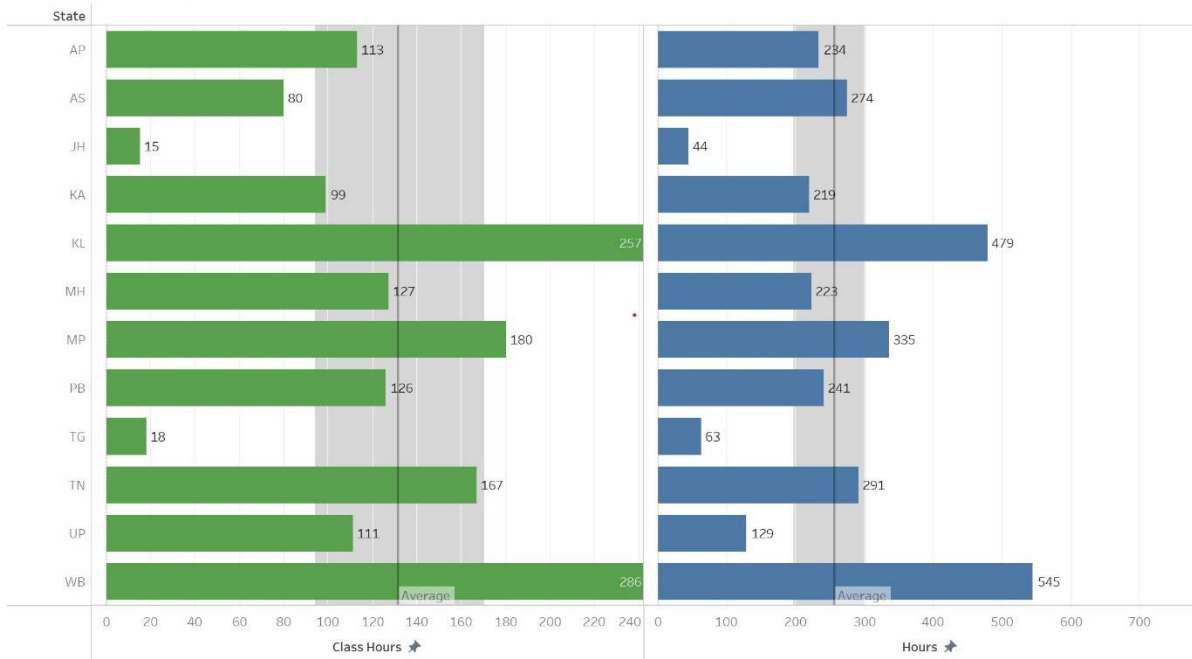
Figure 5. State wise difference in Online Education and Conventional Education
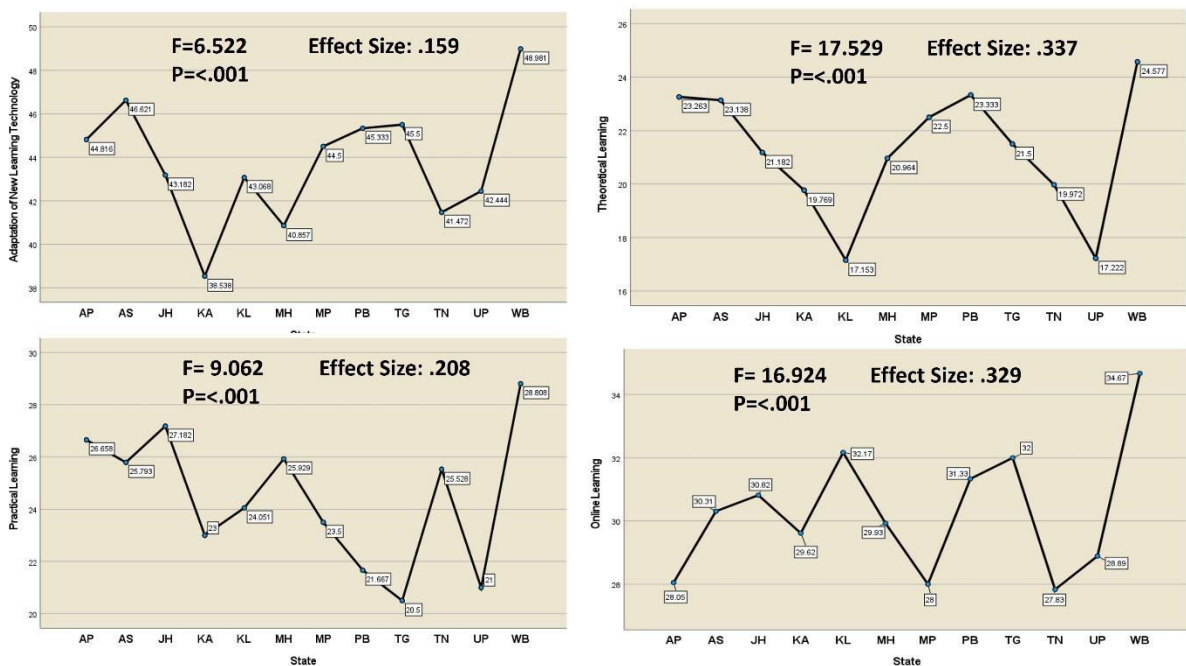
Table 2. The impact of Online Education over Convectional Education

Variables	Mean	Standard Deviation	S^2
Adaptation of New Learning Technology (AT)	44.06	6.97	48.61
Practical Learning (PL)	24.76	5.30	28.12
Theoretical Learning (TL)	21.18	4.41	19.45
Outcome of Online Learning (OL)	30.48	3.91	15.29

DISCUSSION

The outbreak of the COVID-19 pandemic has significantly impacted education worldwide, forcing institutions to adapt rapidly to online learning (OL) platforms. In the context of social work education, this transition has been particularly challenging due to the practical and field-oriented nature of the discipline. In this discussion section, we delve into the impact of OL over conventional learning (CL) for Master of Social Work (MSW) students in India during the post-pandemic era.

Effectiveness of Online Learning

The study conducted by Raj and colleagues sheds light on the effectiveness of OL in comparison to CL. Participants adapted well to new learning technologies, indicating the flexibility and accessibility offered by online platforms (Raj et al., 2023). However, the study also revealed a decline in practical learning (PL) without direct supervision. Social work education heavily relies on fieldwork and practical experiences, and the shift to OL has raised concerns about maintaining the integrity of these essential components.

Challenges Faced by MSW Students

The study's findings reveal that the COVID-19 pandemic has had a profound impact on the learning experiences of the participants. The fear associated with the pandemic was a common sentiment among the participants, which inevitably influenced their educational journey.

One of the most striking findings is the intensity of online engagement, as evidenced by the prolonged screen time and class duration. On average, participants were engaged in online learning for about 7.87 hours per day, with class durations averaging 4.04 hours (Figure 3). This level of digital immersion is unprecedented and raises concerns about the potential impacts on students' physical and mental health. Research has shown that excessive screen time can lead to issues such as eye strain, sleep disturbances, and decreased physical activity (Li & Lalani, 2020).

Mobile phones emerged as the primary tool for attending classes, reflecting the widespread accessibility of these devices. However, this reliance on mobile technology for education also underscores the digital divide, as not all students have access to reliable internet or suitable devices for online learning (Zhang et al., 2022).

The cost of education was another significant concern for some students. This could be due to the additional expenses associated with online learning, such as internet costs, or the purchase of necessary devices. These financial barriers highlight the need for targeted interventions and support mechanisms to ensure equitable access to online learning resources (Aristovnik et al., 2023).

These findings underscore the multifaceted challenges posed by the shift to online learning during the COVID-19 pandemic. They highlight the need for comprehensive strategies that address not only the technological requirements of online learning but also the socio-economic and psychological factors that influence students' learning experiences (Aristovnik et al., 2023).

<u>State-wise Variations</u>

State-wise differences were observed in student preferences for OL and CL. West Bengal students demonstrated higher adaptability to new learning technologies, while Karnataka students leaned towards CL. Kerala students favoured CL for theoretical learning (TL), emphasizing the importance of context-specific approaches. These variations underscore the need for tailored strategies to address the diverse needs of students across different states.

A higher standard deviation or variance indicates a greater spread of data. In this context, it could suggest a wider range of student experiences or outcomes. Conversely, a lower standard deviation or variance suggests that the data points are closer to the mean, indicating more consistency in the data. The mean provides a measure of central tendency, giving an overall picture of the student performance or experience in each category (Table 2).

The results of the study provide a fascinating insight into the state-wise differences in Online Education and Conventional Education in India. The data suggests that while there are statistically significant differences in the adaptation of new learning technologies, practical learning, theoretical learning, and outcomes of online learning across different states, the effect size is relatively small.

West Bengal, for instance, recorded high mean values across all subdomains of the scale (AT=48.98; PL=28.80; TL=24.57; OL=37.67), indicating a higher level of engagement with both online and conventional education systems. On the other hand, states like Karnataka, Telangana, Kerala, and Madhya Pradesh showed lower mean values for different subdomains, suggesting potential areas for improvement (Figure 5).

These findings align with previous research indicating that the effectiveness of online and conventional education can vary significantly depending on various factors, including the availability of resources, the level of teacher training, and the socio-economic background of the students.

However, it's important to note that while the differences are statistically significant, the effect size is relatively small. This suggests that while state-wise differences exist, they may not have a large impact on the variables being measured. This could be due to a variety of factors, including the quality of the educational content, the effectiveness of the teaching methods, and the level of student engagement.

This study underscores the importance of considering state-wise differences when evaluating the effectiveness of online and conventional education systems. While significant differences exist, their impact on the overall learning outcomes may be smaller than expected. Further research is needed to explore these differences in more detail and to develop strategies to address them effectively (Singh, 2024).

Recommendations and Future Directions

Infrastructure Development: Educational institutions must invest in robust digital infrastructure to support seamless OL experiences. Equitable access to technology should be ensured for all students, especially those from marginalized backgrounds.

Pedagogical Strategies: A blended approach, combining OL with face-to-face sessions, can enhance practical learning. Strengthening mentoring and supervision for fieldwork is essential to maintain quality education.

Research and Evaluation: Longitudinal studies should assess the long-term impact of OL on social work practice. Innovative methods for evaluating practical competencies in virtual settings need exploration.

CONCLUSION

The pandemic necessitated a rapid shift to online learning, challenging social work educators and students alike. While OL offers flexibility and accessibility, maintaining the integrity of practical learning remains crucial. By addressing challenges and implementing effective strategies, social work education can continue to thrive in the digital era.

Ethics Statement

The studies involving human participants were reviewed and approved by the Ethics Committee Central Institute of Psychiatry, Ranchi, India. The patients/participants provided their digital informed consent to participate in this study.

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