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# Teaching Delivery, Teacher Education, and Learning Processes during COVID-19: A Systematic Review of Global Educational Research

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**ABSTRACT**

This review examined recent studies exploring the impact of COVID-19 on teaching delivery, teacher preparation, and learning processes across different educational contexts. Findings revealed significant disruptions in teacher training, practicum experiences, online pedagogical readiness, and assessment practices, alongside deep inequities caused by the digital divide. While teacher and student challenges were widespread, many studies also highlighted resilience, innovation, and the accelerated adoption of technology-enabled teaching and professional development. The crisis exposed limitations in narrow policy-driven definitions of teacher quality and emphasized the need for flexible, inclusive, technology-supported, and future-ready education systems capable of adapting to large-scale disruptions.

***Keywords :*** *COVID-19, Teacher Education, Online Learning, Digital Divide.*

## 1. Introduction

Teaching methodology refers to the systematic, purposeful, and reflective processes through which teachers design, organize, and deliver instruction to promote meaningful learning. It includes a broad spectrum of approaches ranging from traditional teacher-centred strategies such as lectures, direct instruction, and demonstrations to contemporary learner-centred methods such as project-based learning, inquiry-based learning, collaboration, and differentiated instruction. These methods are shaped by teachers' educational philosophies, classroom contexts, and the diverse learning needs of students. Effective teaching integrates appropriate strategies, techniques, resources, digital tools, and assessment practices to make learning engaging, inclusive, and outcome-oriented. Students learn through various modes—including teacher explanation, hands-on activities, peer interaction, questioning, feedback, multisensory stimulation, practice, and connection-making—which collectively build deeper understanding and long-term retention. However, the COVID-19 pandemic brought unprecedented disruption to education systems worldwide, reshaping how teaching and

IJAMSR

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learning occurred. The abrupt shift to online learning led to significant challenges related to digital access, instructional preparedness, student engagement, and assessment integrity. Many learners, particularly those from disadvantaged backgrounds, experienced learning loss, emotional stress, and reduced social interaction, while teachers faced increased workload, technological barriers, and limited support. Despite these challenges, the pandemic also accelerated pedagogical innovation through the adoption of digital tools, hybrid learning models, flexible curricula, and student-centred instructional designs. It highlighted the importance of digital literacy, equity, mental health support, and resilient learning ecosystems capable of adapting to future crises. The shift from content-heavy instruction to skill-focused learning—emphasizing critical thinking, problem-solving, digital competence, and collaboration—emerged as a key educational priority. In this context, evaluating the impact of the pandemic on teaching delivery and learning outcomes has become crucial for understanding gaps, identifying effective practices, and informing future policy and pedagogical reforms. This evaluation is essential not only for addressing immediate learning recovery but also for strengthening education systems to ensure quality, accessibility, and continuity of learning in an increasingly dynamic world.

## 2. Review of Literature

**Bishop (2024)** had stated that as of March 31, 2020, the COVID-19 pandemic resulted in schools closing down in 192 countries and temporarily disrupting over 1.6 billion learners out from conventional classroom learning. The study indicated that such school closures entrenched inequalities in education and widened pre-existing gaps. This qualitative case study sought to explore the ways that middle grades teachers might "take advantage of" far-from-normal conditions in emergency remote instruction as an innovative space, restructuring classroom practices during a time of disruption. Many aspects of teaching had improved, particularly in understanding and individualized instruction, student choice and self-pacing, assessment feedback and the strength of family engagement and technology skills. The study concluded with some reflections on the implications for schooling and the school day.

**Orozco et al. (2023)** had examined COVID-19 as a "disorienting dilemma" using Mezirow's transformative learning theory to understand how higher education institutions in the U.S. adapted during the transition from traditional classrooms to online instruction. Their study combined a systematic literature review with an online survey distributed during a global higher education symposium. The questionnaire collected demographic data and responses regarding digital teaching methods, instructional challenges, and attitudes toward computer-based learning. Thematic analysis revealed widespread shifts in teacher beliefs, pedagogical practices, and student expectations. The study ultimately proposed best-practice guidelines for strengthening online higher education during major disruptions.

**Kupers et al. (2022)** were found to have investigated the effect of the COVID-19 pandemic on teachers' working lives across international school closures. The profession of teaching is known to be a demanding one and thus, the aim of their study was to investigate teachers' experiences of remote teaching as well as to measure the job demands and resources that were relevant for (the

IJAMSR

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different groups of) teachers. In a cross-sectional mixed-method study, 307 Dutch teachers (mainly female) filled out both questionnaires and were interviewed. In terms of their cluster analyse we also have the teachers and their teaching practices divided into three: 'relaxed', 'worried and stressed' and 'happy workaholic'. The four job resources that mattered in the lock-down period were proactive and supportive supervisors as well as collegial connections.

**Michel et al. (2021)** had investigated the impact of a sudden virtual teaching and learning transition in French primary and secondary schooling context, during COVID-19 pandemic, on teachers' usage of technology through Virtual Learning Environment (VLE). They had polled 441 teachers and done 13 in-depth interviews. As in previous research, their results implied that tech-centric educators tended to double down on whatever they were already doing well. But at least they had been pushed into those more active, immersive, interactive and engaging forms of learning to maintain pedagogical ties across students. Two main features of technology integration were identified through the multidimensional analysis: differentiation of student interaction and enhancement in teachers' self-efficacy. While VLEs were seen as more user-friendly than other ICT, this was just one part of the story and on their own they do not provide the support teachers need to develop professionally. The essay went on to suggest three approaches to rethinking the VLE user experience designed to encourage resource authoring and better align the logics of different digital tools with that of teaching practice.

**Gamage et al. (2020)** had examined how universities worldwide responded to pandemic-related disruptions, particularly in science, engineering, and technology programmes that relied heavily on laboratory work. Their review of institutional policies, academic literature, and online resources showed that many universities shifted to fully online or blended modes, although practical labs were frequently cancelled or inaccessible. The authors stressed the need for continuous monitoring to ensure academic standards and learning outcomes remained aligned with qualifications awarded. They highlighted innovative remote laboratory strategies but also noted persistent challenges in providing authentic, hands-on learning experiences during prolonged campus closures.

**Abolghasemi (2019)** also had the goal of identifying possible difficulties of physical education teachers in teaching online classes. It was a fundamentally, descriptive and qualitative study. Twenty-five potential subjects (physical education teachers of Sari city) who were appropriate to satisfy the aim of study was chosen by purposive sampling, and data saturation was reached after semistructured interviews. Statistical analysis: Descriptive and inferential statistics applied and for data analysis SPSS (ver. 22) and Maxqda software were used. It has been recommended in the study that teachers are facing management, structural-cultural, monitoring and evaluation, infrastructure and equipment and educative issues while teaching through online mode. And, finally, recommended that indirect control, having access to suitable models - electronic content delivery and training as well multimedia-based training could confront such challenges.

## 3. Conclusion

The reviewed studies collectively demonstrate that the COVID-19 pandemic reshaped global education in ways that were both disruptive and transformative. Teacher education, classroom instruction, and institutional operations were forced into rapid digital migration, revealing significant

IJAMSR

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gaps in technological readiness, pedagogical skills, and equitable access to learning resources. Initial Teacher Education programmes in multiple countries struggled with reduced practicum opportunities, limited classroom exposure, and inconsistent online supervision. Yet, many trainees and early-career teachers demonstrated creativity, adaptability, and resilience in responding to unprecedented challenges, highlighting the inadequacy of pre-pandemic policy frameworks that defined teacher quality in narrow, measurable terms. While remote learning created learning losses, emotional strain, and disengagement among students, it also spurred widespread pedagogical innovation. The studies showed that educators experimented with new instructional approaches, collaborative platforms, and digital assessment methods, while institutions attempted to maintain academic continuity through blended and virtual modalities. Technology-enabled Teacher Professional Development emerged as a promising avenue, although issues of equity and quality persist. The pandemic reaffirmed the urgent need for inclusive, flexible, and resilient educational systems capable of functioning during crisis conditions. Strengthening digital infrastructure, enhancing teacher digital literacy, expanding equitable access to devices, and redesigning curricula around skills such as problem-solving, collaboration, and digital fluency are essential. Moreover, sustainable practicum models, virtual supervision tools, and innovative field-experience designs are crucial for ensuring teacher preparedness in future disruptions.

**References**

1. Bishop, P. A. (2024). Middle grades teacher practices during the COVID-19 pandemic. In *Dialogues in Middle Level Education Research Volume 3* (pp. 20-50). Routledge.
2. Orozco, L. E., Giraldo-García, R. J., & Chang, B. (2023). Best practices in online education during COVID-19: Instructors' perspectives on teaching and learning in higher education. *Psychology in the Schools*, *60*(11), 4210-4228.
3. Kupers, E., Mouw, J. M., & Fokkens-Bruinsma, M. (2022). Teaching in times of COVID-19: A mixed-method study into teachers' teaching practices, psychological needs, stress, and well-being. *Teaching and Teacher Education*, *115*, 103724.
4. Michel, C., Pierrot, L., & Solari-Landa, M. (2021). VLE Limits and Perspectives for Digital Integration in Teaching Practices: Lessons Learned from the French Basic Education Teachers' Experience During the COVID-19 Pandemic. In *Technology-Enhanced Learning for a Free, Safe, and Sustainable World: 16th European Conference on Technology Enhanced Learning, EC-TEL 2021, Bolzano, Italy, September 20-24, 2021, Proceedings 16* (pp. 96-109). Springer International Publishing.
5. Gamage, K. A., Wijesuriya, D. I., Ekanayake, S. Y., Rennie, A. E., Lambert, C. G., & Gunawardhana, N. (2020). Online delivery of teaching and laboratory practices: Continuity of university programmes during COVID-19 pandemic. *Education Sciences*, *10*(10), 291.
6. Abolghasemi, S. A. (2019). Identifying the Challenges of Physical Education Teachers in Online Class Management.