

Virtual School Internship as a Pedagogy of Disruption: Prospective Teachers' Virtual Internship Experiences

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Abstract

The unprecedented COVID-19 pandemic posed considerable challenges to the prevailing school internship in teacher education institutions (TEIs), which had been an integral part of the Bachelor of Education (B.Ed.) programmes. The school internship is a structured, systematic teaching practice session conducted by prospective teachers in secondary schools. Most TEIs in India were not adequately prepared to conduct virtual internships during the pandemic, as the concept emerged amid uncertainty. Thus, virtual internships emerged due to the impossibility of conducting in-person internships. This case study research is based on Mizoram University. This study aims to identify the hardships faced and efforts made by prospective teachers during a virtual school internship. An online questionnaire consisting of open-ended questions was used to collect qualitative data. Eighty-eight student-teachers were selected using purposive sampling in the study, and their responses were analysed using thematic analysis. Virtual school internship, though born out of crisis, functioned as a disruptive pedagogical space that challenged conventional assumptions about teacher preparation and opened possibilities for reinterpreting internship practices in teacher education.

Keywords: Thematic analysis, prospective teachers, virtual internship, teacher education, COVID-19 pandemic

Introduction

Internships play a crucial role in one's work-life exposure and involvement. Well, it is about one's acquaintance with work-life chills while one is still not engaged in a full-time portfolio. However, the rise and fall in the number of COVID cases have subsequently affected the implementation of "professional practices, internship schemes, and all other forms of work-based learning" (Marinkovic et al., 2021). Internships (in any workforce) are always highly impactful as they ameliorate the trainees' conceptual upshot. During the pandemic, following the traditional internship mode was challenging, thus

vitalising the growth and prominence of virtual internships. The acceptance and adaptability of virtual-mode interns have varied significantly depending on factors such as mobility, flexibility, access, autonomy, empowerment, and professional networking (Medeiros et al., 2015).

As stated in a study by Hora et al. (2021), virtual internships have become the primary modality of work-based learning for students worldwide, potentially replacing traditional in-person internships by 2020 (Lumpkin, 2020). The pandemic-induced shift to remote work introduced new practices in organisations, as employers and

employees created new communication methods and online collaboration techniques (Waizenegger et al., 2020). Virtual internships in the case of TEs depended upon 'computer-based classroom simulation' (Theelen et al., 2019), thus providing trainee-teachers with opportunities to familiarise themselves with the work culture of their respective industry and, as Shaffer (2007) said, 'think and act as professionals in the mock space'. Virtual internships, thus, provide the opportunity for trainee teachers to put their subject matter proficiency into application (to the workplace) to produce new knowledge and skills through social negotiation (Franks & Oliver, 2012). Although nothing can match the exposure of in-person internships, online (virtual) internships have gained popularity over the past two years, not to replace them but to enhance their value.

Conducting internships for would-be teachers online required trial and testing with fresh and distinctive approaches and practices, as little literature exists on virtual internship-related practices. For a teacher-trainer to devise ways to make virtual classes more effective is always a challenge: no single method may fit perfectly, given the uncertainty or unavailability of resources and aids. Discussing (at large) the types of distractions interns face while taking virtual classes with students may be fruitful for identifying potential methods to address them, keeping the study's objective in mind. Given the current market trend, virtual internships need not be mere emergency replacements for in-person work experiences (Gill, 2020). They qualify to offer valuable opportunities that enable students to cultivate essential skills and behaviours for successful remote work (Hruska et al., 2022).

While virtual internships have been examined across multiple professional

domains, their application within pre-service teacher education (typically under pre-service teacher education) remains under-theorised, particularly in a crisis context. While school internships are traditionally rooted in embodied classroom interaction, observational learning, and situated pedagogical practices, the sudden shift to virtual internships was not a pedagogical choice but a contingent institutional response. Nonetheless, this has raised critical questions about preparedness, legitimacy, and reconstruction of practice-based learning in teacher education, to name a few. This study posits virtual school internship as a pedagogical disruption shaped by emergency conditions that require close empirical interpretation.

Virtual Internship

Internships are highly valuable, as they showcase trainees' potential (in any field) and make them job-ready while they are still part of their training programme. The last couple of years have seen a striking rise in interest and acceptance of virtual internships in the curriculum due to the rise in COVID cases across the country. Work readiness and the concept of purposeful skills are constantly changing as the work environment shifts from a 20th-century labour-driven workforce to a 21st-century technology-driven workplace powered by central processing units (Cook, 2020). The virtual mode became both a newfound experience and a challenge, as "in-person positions" were either scrapped or about-faced in the online mode (Hora et al., 2021). Virtual internship opportunities enabled them to delineate their real-life experiences (Roy & Sykes, 2017). It not only helps them gain experience but also nourishes their problem-solving abilities (Barr & Busler, 2011). Further evidence is provided by Briant and Crowther (2020), who describe internship as 'industry-based

learning' and 'work-based learning'. Way back in time, the researcher duo Franks and Oliver (2012) had talked about how Higher Educational Institutions (HEIs) had gradually started to acknowledge the merit of Virtual Internships as they would provide "valid experiential learning opportunities to acquire professional skills and competencies (p. 274)."

A virtual school internship program for teacher education can be defined as an internship program carried out by technologically assisted learning management system-based software through which student teachers can interact with real classroom students and use relevant facilities of learning resources such as books, video, pictures, white board as well as get opportunity to help learners to construct their knowledge from a virtual classroom environment (Panda, 2022). In the virtual "work-based learning", adept communication is established between students and trainee-teachers, trainee-teachers and their company representatives, etc. This then helps them complete the assigned work (activity) that is embedded in their students' curriculum (Vriens et al., 2010). Several factors are considered responsible for the success of the virtual mode. As noted by Black and Bachman (2007), computer-based learning is prominent when the internship placement is valued as an academic class worthy of pedagogical improvement. The new work environment is increasingly shifting toward online, socially isolated workplaces, requiring new methods for navigating these domains (Gill, 2020). And since web-based learning has gradually become the new normal, it is high time for TEIs to equip trainee teachers with the flexibility to use virtual classrooms and "high-quality instruction" suited to a virtual working unit (Tabassum & Kalimullah, 2022).

Challenges of a virtual internship

Virtual internships gained prominence amid the COVID-19 crisis, when teachers and students were obligated to adopt digital learning methods (Lederman, 2020). The connection between teachers and students got wired via the internet and technology. The pandemic prompted teachers to adopt new methods for online teaching, followed by feedback and assessments (Tsai et al., 2021). The digital divide has had a severe impact, as instruction delivery relies on technology (Phillips, 2021). In rural areas, there was no guaranteed access to electricity, Wi-Fi, or broadband connections that enable high-speed internet (Gurung, 2021). As the tectonic shift went hair-triggered and came up uninvited, it created challenges for almost every education-related stakeholder (Tabassum & Kalimullah, 2022). COVID-19 significantly disrupted internships, leading to fewer placements and highlighting the need to expand their scope (Woon et al., 2020). Interns frequently report experiencing apathy, disinterest, or a sense that their presence is insignificant or, worse, a burden to the internship site (Crowell, 2018). The student interns had to scuffle with the up-to-the-minute ways of getting things done, which nobody had rustled up, and had a side effect on the socio-economic factors of concern (Pepito, 2022). Trainee teachers faced hurdles while interacting with learners and colleagues (Yıldırım, 2021), suffered from reduced motivation and engagement levels among young learners (Lorenza & Carter, 2021), a dearth of personal connection with the students (Barnett et al., 2021), and assessing and evaluating the progress of children during could not be assiduously done (Duran, 2021). There was a paucity of classroom management. It was a toil to stand in one place, going on with bare minimum voice modulation throughout

the lesson and rarely using their poise and stance (Aldabbus, 2020). For a while, feelings of guilt and 'gratefulness' have accompanied this practice, blocking its long-standing benefits, which include improved staff retention, increased productivity, and a more effective use of quiet time (Flanders, 2020).

Efforts to make virtual internships effective

It is true that student teachers had to overcome several difficulties amid the pandemic to remain committed to their virtual internship and, in doing so, triumphed over adversity. The journey of the virtual internship was undertaken with strong personal and professional convictions, bolstered by the necessary reinforcement from key stakeholders (Pepito, 2021).

Smith and Bath (2006) deemed critical thinking, intellectual curiosity, problem-solving, logical and independent thought, communication and information management skills, intellectual rigour, creativity and imagination, ethical practice, integrity, and tolerance as crucial attributes necessary for professional practices. The roles of the school, mentor-teacher, co-interns, and, of course, the students played a crucial role in determining the virtual internship's success rate (Iradel et al., 2021). Virtual school internships, in the backdrop of the pandemic, demanded a critical-based learning approach over a knowledge-based one, and teachers were encouraged to familiarise themselves with the latest technology and utilise all available resources for effective teaching (Gurung, 2021). Teachers were expected to assess their own socio-emotional abilities (Hadar et al., 2020).

Steady, healthy interaction between fellow interns and students was essential for promoting co-operation and collaboration in the classroom

(Mumford & Dikilitaş, 2020). Another effort was to have interns work in peer teams, where they served as evaluators for their peers, thereby identifying the elements that required emphasis (Faucette & Nungent, 2015). A successful virtual internship requires effective information technologies, should incorporate a face-to-face element, and must be well-organised and carefully planned (Vriens et al., 2010). Virtual internship emphasises the importance of contextualised, situated learning while underscoring the interconnected nature of online tools, where the utilisation of time and space is deemed crucial to the pedagogical framework, thus enabling learning in diverse "spaces" through virtual environments, making education independent of time and location (Kearney et al., 2012).

Advantages of Virtual Internship

The pandemic provided chanced opportunities to procure online pedagogy in novel and innovative ways (Velle et al., 2020). Apart from developing pedagogical skills, they were also invigorated by personal values (Sepulveda-Escobar & Morrison, 2020) and technological skills (Pepito, 2021). The practicality of knowledge depends on what students already know and how they relate the information they have learned to real-world work situations.

As the trainee-teachers began to take control of the situation, they eventually emerged capable of taking measures to curb and address crises, thus improving their well-being (Sulis et al., 2021). The virtual internship gave students a lived experience of participation in web-based orientation, webinars, and meetings, thus training interns to get accustomed to the change (Quinco-Cadosales, 2022), hence assuring that learning environments with different age groups, content areas, and delivery systems are warranted (Faucette &

Nugent, 2015). Exposure to virtual internship opportunities has made students realise the importance of both transferable professional skills and the ability to identify and commiserate with the attributes necessary to succeed in a continually diversifying workplace (Cook, 2020). In teacher education, virtual internships have been found to be effective in developing teachers' technological pedagogical content knowledge (TPACK) and fostering complex professional thinking (Mia et al., 2020). Social isolation in the guise of virtual internships exposes students to a range of employability skills that are more likely to become common in future workplace advancement (Flanders, 2020). The feeling of accomplishment came from a rise in the trainee teacher's confidence, which enabled him to maintain the class's nerve (Jinyoung, 2020) and to take action to control and mitigate problems. AlGhamdi (2022) reported in his mixed-methods research that IT students were satisfied with their virtual internship. Additionally, switching to a virtual internship can be an effective strategy if an intern is unable to complete an in-person internship due to an emergency or other exceptional circumstances (Jose et al., 2019).

Cord and Clements (2010) assert that virtual internships conducted online eliminate the worry of being late to work or requesting days off; there is no need for constant supervision, and all tasks are completed with the interns' diligence. Students managing both classes and extracurricular activities will appreciate the opportunity to streamline their work schedules, and employers will be pleased to offer flexible hours to ensure high-quality work (WayUp, 2021). Plus, virtual internships can provide opportunities for nontraditional students resuming their education and those who have previously faced challenges due to mobility, financial,

or family obligations (Jeske & Axtell, 2014). Incorporating virtual internships and virtual experiences into existing programs can enhance diversity and inclusivity in science, providing students from diverse backgrounds with greater exposure to various aspects of the research process (Nocco et al., 2021).

The following research questions were addressed in the study:

- RQ 1. What were the challenges faced by the student-teachers during their virtual internship amidst the COVID-19 pandemic?**
- RQ 2. What efforts did the student-teachers undertake to make teaching effective in the virtual internship during the COVID-19 outbreak?**
- RQ 3. How did virtual internships help student-teachers transform the pandemic into an opportunity instead of an adversity?**

Methodology

The researchers employed a case study as the research design and adopted a qualitative approach. The constructivist perspective develops an in-depth understanding of a specific instance of virtual school internship implemented during the COVID-19 pandemic. The constructivist stance informed the inquiry by foregrounding how student-teachers constructed meaning from their lived experiences, interpreted pedagogical disruptions and contextual constraints, and adopted teaching practices in an unprecedented instructional environment. This perspective aptly captures the subjective and situated nature of teaching and learning in a virtual internship at Mizoram University. Mizoram University, a central university in northeastern India, accredited with an 'A' grade by the National Assessment and Accreditation Council (NAAC), was selected as the case

for research. It was established in 2001 by an Act of the Indian Parliament (No. 8 of 2000). The university has 40 affiliated colleges and one constituent college. It has 39 departments and 84 academic programs, offering undergraduate, postgraduate, and doctoral programs that are currently operational. Due to the COVID-19 pandemic, prospective teachers were directed to go for virtual rather than offline school internships as an inevitable requirement of pre-service teacher education programs. Mizoram University has been chosen as a case for this study due to its institutional mandate to conduct virtual school internships during the COVID-19 pandemic, making it a typical and information-rich case (Yin, 2014) for interpreting how pre-service teachers navigated practice-based learning under crisis conditions. The case caters to a geographically dispersed student population, many of whom face infrastructural and connectivity constraints, thereby posing a critical constraint for exploring the lived realities of virtual school internships.

Participants

The participants in this research were 88 student-teachers pursuing a pre-service teacher training program, B.Ed. during the 2020-2022 academic year at Mizoram University, India. Of the respondents, 50 were male (57%), and 38 were female (43%), aged 22-42. The participants were selected using purposive sampling. The virtual school internship was conducted over a period of three months, during which student-teachers engaged in online classroom teaching, lesson planning, student interaction and reflective activities using various digital platforms, such as Google Meet, Zoom, and WhatsApp. The internship replaced the conventional in-person school practicum and was supervised remotely by mentor teachers and university faculty.

Instrument for data collection

A semi-structured questionnaire, consisting of open-ended questions, was used as the data collection instrument. The questionnaire was designed to elicit responses regarding student-teacher preparedness for virtual internships, their everyday challenges, and their efforts to make these practices effective during online virtual internships. To enhance the instrument's credibility and content validity, the semi-structured questionnaire was reviewed by three experts in teacher education and qualitative research. Their feedback informed revisions to clarity, relevance, and alignment with the study's research questions.

Procedure

The researcher employed a case study method using semi-structured interviews to collect the qualitative data. This study is delimited to Mizoram University. The data were collected from May 2022 to June 2022 (over seven weeks). The researcher prepared a semi-structured interview schedule to gather detailed information from student-teachers about the virtual internships they adopted during the pandemic. All the sample student-teachers extended their full cooperation by responding to the questionnaire. The researchers gathered valuable suggestions and feedback through in-depth interviews with the student-teachers.

Data Analysis

To address the research questions, researchers adopted thematic analysis to analyse the students' responses. The researchers followed the six phases of thematic analysis (Braun & Clarke, 2006) consisted of:

Phase 1: familiarising yourself with your data

Phase 2: generating initial codes

Phase 3: searching for themes

Phase 4: reviewing themes

Phase 5: defining and naming themes

Phase 6: producing the report

Audio recordings of all the interviews were transcribed and analysed using line-by-line open coding. In phase one, student-teachers' responses were read and re-read multiple times, and the relevant information concerning the research questions was noted. The researchers formulated a few initial ideas about the remaining codes after omitting many. In phase two, the researchers systematically began formal open coding, which was subsequently refined to minimise ambiguity. In phase three, initial themes and sub-themes were identified by arranging a plethora of codes with similar content. These candidate themes and sub-themes emerged from the relevant codes pertaining to the research questions. In phase four, some identified themes became sub-themes, and vice versa. Therefore, they were reviewed and modified to ensure coherence and distinctiveness among the themes and sub-themes. In phase five, by 'define' and 'refine,' major themes and sub-themes were finalised, and sub-themes necessarily represented themes-within-a-theme (Braun & Clarke, 2006). In phase six, the researcher selected

archetypal examples of final themes and sub-themes, providing adequate data extracts to demonstrate the frequency of the theme in relation to the research questions.

Four expert research members, including the author, participated in the data analysis. To ensure the reliability and validity of the data analysis, the researcher conducted several rounds of discussion. Two trained professionals were manually included in the data analysis procedure. The researcher was involved in resolving disagreements concerning thematic analysis to ensure credibility and reliability.

Results

The findings of the study are presented thematically, aligning with the three research questions. Each theme represents a patterned response across participants rather than isolated experiences, reflecting systematic pedagogical and institutional challenges encountered during the virtual school internship.

RQ 1. What were the challenges faced by the student-teachers during their virtual internship amidst the COVID-19 pandemic?

Five themes were identified to describe the challenges student-teachers faced during the virtual internship during the COVID-19 pandemic (Table 1).

Table 1: Challenges faced by the student-teachers during their virtual internship amidst the COVID-19 pandemic

Themes	Explanation
Internet Connectivity	Technical glitch and poor bandwidth connection.
Lack of discipline and motivation among students	Trainee-teachers are unable to monitor students properly or understand what is going on in their minds. Lack of discipline further leads to concentration lapses.
Lack of real classroom experience	Lack of a conducive environment and lack of excitement

Themes	Explanation
Social isolation	Disorganisation, distraction, and misunderstanding are possible lead-ons, along with social anxiety and depression.
Screen time surge and decline in LSRW skills	Over-utilisation of the digital space
Distraction from the background	Too many distractions, right from family members to neighbours to other noise(s)
Health issues	Headache, eye strain, backache, etc.
Breakdown of collaborative practices	Focuses more on individual effort and lacks coordination among co-workers.
Lack of a Learning Management System	LMS(s) were not readily available or accounted for in the budget, requiring coordination among various stakeholders.

Internet connectivity

The most prevalent form of distraction was network irregularity, that is, a poor, slow internet connection. Slow bandwidth and network fluctuations, due to an unstable power supply, further added to the troubles of student-teachers during their virtual internship. As per the opinion of a trainee-teacher,

- “The network issue was a major headache. Often, the students would complain that ‘ma’am, your voice is cracking’, and then I had to reconnect to the link.” (S12)

Sharing disgust on the same matter, another teacher said,

- “Connectivity glitch between PowerPoint presentations would lead to a lapse of concentration for teachers and students. One had to redirect to the lost link, and often simple things would end up getting complicated.” (S7)

Lack of discipline and motivation among students

It became challenging for trainee-teachers to maintain discipline among students in the virtual mode. Teachers had no clarity regarding who was

following the class or whether anyone had fallen asleep behind the camera. It was difficult to extract answers from students, mainly because they were distracted or their motivation level was not properly ascertained.

In this context, a trainee-teacher said,

- “Many times, I would think that I was speaking to a big blank screen, as everybody on the opposite end would keep shut. As a result, the student’s level of interest was not properly assessed. Thus, it was difficult to extract answers from their end.” (S24)

Speaking bluntly about the indiscipline or lack of motivation, another student-teacher said,

- “It was indeed a tough job to steer students’ activities in the virtual classroom, as most of the students refused to turn on their cameras. As a result, students couldn’t be monitored properly. Also, they failed to cooperate with us the way we wanted them to.” (S3)

Lack of real-classroom experience

The conducive classroom environment, however, was a major drawback when

working from home. The lack of physical proximity and face-to-face interaction between teachers and students became a crisis for trainee teachers. In this premise, a trainee-teacher said,

- “We were thrown against a make-shift set where we were expected to teach students who we doubted heard us with earnestness. The vibe of the online venture wasn’t always great. I missed teaching a live class, as the virtual platforms could not retain the proximity of physical contact and affinity between students and teachers.” (S35)

Another student-teacher confirmed,

- “The sameness of a real classroom was not feasible in the online mode. However much we tried, something was always lagging. The interaction between colleagues, workforce energy, and the delivery of teachers was all considerably affected. The dearth of personal touch was a huge amiss.” (S84)

Social isolation

Both student-teachers and their students have faced a sense of detachment from coworkers and friends. Social isolation led to problems such as sleeplessness, anxiety, depression, irritability, and restlessness. Since student-teachers found it challenging to share contexts from their lives with others, they felt withdrawn, which affected their teaching. In this context, a trainee-teacher said,

- “I gradually slipped into depression, not knowing how to vent out my concerns. The virtual mode was initially challenging to deal with. I was not able to talk out my worries with my colleagues or other associates, as the warmth of human presence couldn’t be felt.” (S21)

Another student-teacher opined,

- “I’d often felt that the students were not cooperative enough in the virtual mode. I didn’t know whom to trust. I’d feel restless as I was still trying to figure out how to complete the syllabus.” (S43)

Screen time surge and decline in LSRW skills

Since the entire virtual internship was conducted online, there was a strong emphasis on the optimal use of the internet facilities available. Gradually, it was found that students’ screen time had increased. Moreover, trainee-teachers observed that students’ reading habits (textbooks and other hard copies) had suffered considerably due to their overindulgence in web-based material. Referring to this context, a trainee-teacher said,

- “Students’ writing habits had suffered a big deal in the pandemic. Most of them would submit assignments by simply copying from the internet. Habits such as visiting the library, citing different reference books to frame answers lagged remarkably.” (S11)

Distraction from the background

The most consistent cause of distraction and concentration lapse for trainee teachers during the virtual internship was the sound from their backdrop, whether from family members, neighbours, housemates, or the locality. Creating a workspace at home was a tough initiative, which became even more challenging with the interference of background noise. Talking in this regard, a student teacher confessed,

- “While interacting in a classroom discourse, both trainee-teachers’ and students’ audios may have coincided with background sounds,

be it a parent calling or some renovation work happening at home. At times, homes would be staked with relatives, amplifiers being played in the locality, the sound of television, people talking over the phone made the situation worse and inappropriate for study" (S39)

Health issues

Sitting in front of the computer system for long hours made trainee-teachers feel dizzy and restless, causing eye strain, headaches, backaches, and requiring earnest muscle relaxation. The exposure to screen space was an essential determinant in this regard. A trainee-teacher confessed,

- "Sitting for long hours in one posture was extremely difficult. I had to get myself a computer lens, as looking straight into the screen from morning till night made my eyes watery and caused a headache." (S16)

Another teacher commented,

- "While teaching in a physical classroom, the teacher gets to roam around the class, whereas in a virtual classroom, the teacher has to stick to a corner due to conditional mobility. This caused severe backache, symptoms of spondylitis, problems related to blood circulation, fatigue, and attention deficit, to name a few." (S20)

Breakdown of Collaborative Practices

In the virtual classroom, the teacher played the role of a one-man army, and unlike in the physical mode, teachers had to work as individual units to run a class. The primary reason for inefficient teamwork was poor communication. Trainee-teachers had to trust their instincts and listen to their hearts when making decisions (in the virtual mode).

In this context, a trainee-teacher opined,

- "Teamwork was never an option during the virtual internship, as not everybody was on the same page; therefore, the sync was missing. We wished and waited for the physical mode to return, but to no avail." (S42)

Lack of a Learning Management System

Without a centralised platform for communication and document sharing, confusion can arise about tasks and deadlines. An LMS typically offers integrated communication tools, facilitates the assignment and submission of assessments, projects, or quizzes, and enables the delivery of timely, constructive feedback, all of which are crucial to an intern's development and learning.

In this context, a university student shared their concerns, stating,

- "Without an appropriate LMS, managing the technical aspects of virtual internships, like ensuring secure access to resources, coordinating schedules, or resolving platform issues, created significant challenges for both the students and us we were working with." (S6)

Another intern commented,

- "Implementing an LMS required investments in hardware, software, and internet infrastructure that weren't readily available or accounted for in the budget. This also involved additional complexities, such as coordinating between various stakeholders, including instructors, administrators, IT teams, and students." (S12)

RQ 2. What efforts did the student-teachers make to make teaching effective in the virtual internship during the COVID-19 outbreak?

Five sub-themes were identified based on the efforts made by the student-teachers to make teaching during the

virtual internship effective during the lockdown (Table 2).

Table 2: Efforts made by the student-teachers to make teaching effective in the virtual internship during the COVID-19 Pandemic

Themes	Explanation
Optimum use of technology	Use of electronic devices, graphical presentation (figurative detailing), animation, concept maps, etc.
Activity-based tasks	Practice-based tasks over the lecture method of teaching.
Classroom interaction through discussion	By raising conversation, giving students a chance to speak.
Live demonstration by trainee-teachers in the online mode	To keep the topic fascinating and attract students' interest.
Motivate students to cope with their involvement in class	Help students develop their abilities to work amidst restrictive conditions.
Peer-team evaluation	Trainee-teachers evaluated each other's teaching by joining each other's classes via online links.
Teachers' socio-emotional abilities	Teachers' ability to cope with emotions, accomplish tasks, and tactfully manage conflict situations.

Optimum use of technology

Trainee teachers made the most use of the latest innovations (in technology), thus bringing out the best in them. Graphical representation was a high priority because it maintained students' interest. PowerPoint presentations, GIFs, concept maps, diagrams, and animations were used to provide figurative detail. Several apps, including Jitsee Meet, Zoom, Google Meet, Quizizz, Schoology, Teacher Kit, and Google Classroom, were utilised by student-teachers during their virtual internship phase. E-books and e-notes were circulated for students' further reference. In the words of the trainee-teacher,

- "We tried to make the optimal use of technology, and in the best possible ways, to make the teaching-learning process less complicated and interesting. We ensured that the students used their smart devices

judiciously and extracted the most from whichever way possible." (S54)

Another trainee teacher confessed,

- "Most students were loathed by parents and teachers for their overt affinity towards smart devices; however, the pandemic changed the scenario altogether. These devices became an innate part of our lives, without which life appeared to be dysfunctional." (S40)

Activity-based tasks

Practice-based tasks were preferred over the lecture method of delivery. Another approach was to engage students with tasks related to their area of interest. In this light, a trainee-teacher said,

- "While teaching drama, I would call up names and assign characters to the students. Then, a role-play session would follow. Often, I would

ask them to minimally dress up and sit before the camera so that they can feel the vibe of the character.” (S57)

Another teacher remarked that,

- “I would ask students to draw digital maps and locate places, and make pie charts and bar graphs to study the distribution of crops and minerals, as a part of classwork, and ensure that their interest is intact.” (S61)

Classroom interaction through discussion

The best way to replace the lecture-based teaching method was to generate student interaction through various discussions. These sessions also ensured that the students generated their own answers and expressed their opinions. In this regard, a trainee-teacher said,

- “On rough days when students felt disinterested in studying, I tried to initiate debates and group discussions and sensitise their way of thinking and representation on certain topics. Additionally, after completing a class, I would address questions from students and give them time to justify their answers. A healthy discussion worked as a source of positive feedback as well.” (S59)

Live demonstration by trainee-teachers in the online mode

A live demonstration was an effective way to conduct online classes. Science teachers were seen conducting experiments in front of the camera, allowing students to observe how hands-on experiments are conducted. Similarly, trainee teachers attempted to place a camera so students could see the board or map work prominently. Teachers also made efforts by hanging

charts and demonstrating with other similar teaching aids. In this light of thought, a teacher said,

- “It was difficult to teach titration online, as students won’t understand how to derive the results. What I did for them was record myself experimenting and upload it on YouTube so they could access the link and get a hands-on idea of it.” (S4)

Another teacher opined,

- I used to record myself solving topographical maps, using threads and scales, during live classes for students’ convenience. If they find it difficult in the online class, they could go through the recorded video later on and come up with questions.” (S30)

Motivate students to get involved in class

Arousing motivation and affirming students’ interest depended on the teacher. It was up to the teacher to arouse their interest, be it through games, discussions, allowing students to share their personal experiences, or using any audio-visual aid. Once the students’ motivation level is ascertained, there is a lower chance of their performance being carried away. In this context, a trainee-teacher said,

- “I tried in all earnestness to cater to my students’ interests. We would take up topics that they enjoyed, so their participation was free of any inhibition. Students enjoyed group discussions and debates and participated wholeheartedly.” (S12)

Peer-teacher evaluation

Trainee-teachers participated in hands-on peer-teacher evaluation, where they entered each other’s online classes on designated days via links and evaluated

each other's teaching sessions with their respective students. It was found that peer-teacher evaluation was successful in raising the bar for each student-teacher as they learned from each other's flaws and rectified their own in light of the significant others' flaws. In this light, a trainee-teacher said,

- "Initially, it would feel a bit awkward to attend a peer's online lecture, but gradually, we mutually benefited from each other. The trick was to stay honest with ourselves while evaluating the other person's teaching and to accept the flaws inherent in being told so. It helped us gather confidence and deliver our best with each passing day." (S49)

Teachers' socio-emotional ability

Trainee teachers played a crucial role in managing their emotions, executing tasks in controlled situations, and tactfully managing conflicts that arose in day-to-day work. The success of one's online teaching depends greatly on a healthy balance between the trainee-teachers' socio-emotional abilities. In this context, a trainee-teacher said,

- "Conflict could arise out of anything; thus, we had to be always prepared. Tactful handling of the situation was key. Whenever there is an internet overhaul, or one faces difficulty sharing the screen online. It was our task to quickly come up with alternatives. If we panicked as teachers, it poorly reflected our students." (S7)

Another student-teacher commented,

- "Keeping up with the technical detailing was tough, but we had to master it in order to stay relevant in the class. We, too, had our share of rough days, but we could not have had an impact on our students. We had to put on a smile and keep up the game. It was not easy, but we had to make it possible." (S78)

RQ 3. How did virtual internship help student-teachers turn the pandemic into an opportunity instead of an adversity?

Four themes were identified based on how virtual internship helped student teachers turn the pandemic to their advantage and utilise it as an opportunity (Table 3).

Table 3: Virtual Internship: Opportunity in Pandemic

Themes	Explanation
Strengthens the trainee teacher's web-based orientation	Trainee teachers learn to innovate with technology and implement it in their teaching.
Initiate pedagogical learning in a new and innovative way.	Approach pedagogical learning in a different manner in response to the change, and make the most of it with whatever resources are made available.
Heightens one's confidence level in front of the camera	Improves one's camera presence and boosts confidence in front of the camera.
Flexibility concerning time and space, and saving up money	No need to travel to the workplace; can work from home, gets more time for self-study and preparation.
Developing Crisis Management Capacities	The micro-manage crisis through self-involvement

Strengthens the trainee-teacher's web-based orientation

Trainee teachers extensively used electronic devices to enhance the effectiveness of their teaching. Apart from sharing e-notes with the students, they were asked to submit assignments online. Teachers were encouraged to develop their technical knowledge and generate new ideas for incorporating it into their teaching strategies. Speaking about this matter, a teacher said,

- "I tried to bring newness in my pedagogical with the help of technology. It gave a good overall experience as I got to learn new things, which in turn strengthened my web-based orientation." (S81)

Another student-teacher said,

- "In the initial phase of the virtual internship, the struggle was for real; however, with time, there was better productivity. I gradually started to use the digital space with ease, which improved my online teaching experience as I could explain better with the help of visual effects and animation." (S55)

Initiate pedagogical learning in a new and innovative way

The virtual internship strengthened trainee-teachers' abilities to work under restricted conditions, using whatever resources were available and making the most of them. They learnt to micro-manage and adopt the best approach to pedagogical learning. In this context, a student-teacher opined,

- "Given the conditions, we have learnt to work within our limitations and make the most of the opportunities that came our way. We tried to work in all possible ways by taking chances through trial and error, thereby converting the challenges in our favour." (S67)

Heightens one's confidence level in front of the camera

The virtual mode of the internship has significantly worked in favour of the screen presence of the teachers; that is, it helped build their confidence in front of the camera while taking online classes, thus improving the trainee-teacher's confidence level with which he held the class pulse. It has taught trainee teachers to be more patient, as it took some time for teachers and students to get accustomed to the change. In this context, a student-teacher said,

- "I've always noted that the happy, smiling face of the teacher excites the students to concentrate better in class. Thus, the teacher's camera presence mattered a great deal in the online class. The online internship helped us gather confidence and improve our screen presence, which may have been lagging or weren't consciously taken care of before." (S75)

Flexibility concerning time and space, and saving up money

The virtual internship helped save time that would have been spent commuting to and from home. Thus, it was a convenient time-management tool, as both teachers and students could access the classroom by pressing a button. One did not require much space and could take the class from wherever the teacher felt it was most comfortable. Student-teachers could save up as one stayed home and didn't have to pay for public transport or food behind the canteen. They found more time to prepare or buffer time before taking classes. As per a trainee-teacher,

- "Teaching from home was comforting because one could save time from commuting on a regular basis. Also, I recall taking classes from a hotel room while on an office tour with my

father. So, for sure, space wasn't an issue when it came to taking online classes." (S23)

Another student-teacher opined,

- "I got into a healthy habit of eating home food (instead of the food provided in the school canteen) and ended up saving up the money I expended on food and the fares of public transport." (S85)

Developing Crisis Management Capacities

Trainee teachers had to get hands-on crisis to find a discourse on it. They learnt to micro-manage, given the situation that they had to deal with. Much depended on how much effort they were determined to put forth or how effortlessly they could perform in conflict. More or less, every trainee-teacher during their virtual internship learnt to engage with discourse about the crises they faced daily, given that they had no prior experience of the same. In this light, a trainee teacher said,

- "I had learnt to micro-manage in the face of oddities, which I admit I failed to do before I did my internship. I believe I have acquired a life skill, which has made my approach towards my teaching even more promising." (S25)

Discussion

Through the following discussion, researchers aim to provide a comprehensive overview of student-teacher virtual internships in the context of previous studies during the pandemic. The various challenges faced by student-teachers, the efforts they made to make their virtual internships effective, and what made their tenure in virtual internships an opportunity were interpreted and discussed here.

In line with the findings of Tabassum and Kalimullah (2022), the shift in the mode of teaching and learning had a significant impact on student-teachers (interns) during the pandemic, as the teaching approach changed considerably. In a similar vein to Phillips (2021), the researchers found a clear divide between the 'haves' and the 'have-nots' regarding the scope and access to viable sources of technology (for digital learning). The internet speed was never up to standard, and, similar to Gurung's (2021) findings, the researchers found that the virtual interns faced low bandwidth and Wi-Fi network issues. The researchers identified low motivation and interest among students, a finding consistent with Lorenza and Carter's (2021) study. This required trainee teachers to put a little more effort into increasing student engagement in class and into checking for a drop in their interest level. In line with the findings of Barnett et al. (2021), the researchers found that student-teachers struggled to cope with the imposed virtual setup; that is, they found it unusual due to the lack of physical proximity (personal touch) between students and teachers. In the same line of thought as Yildirim (2021), teachers failed to create a rapport or have a proper vigil over the students, as most of them didn't turn on their cameras or reply voluntarily, unlike the physical class, where teachers could pick them up one by one to keep an eye on their involvement in class. Thus, maintaining classroom discipline was a significant problem for the trainee teachers, as they often had no idea of what was happening around the students behind the camera. Corroborating with the findings of (Crowell, 2018), interns reportedly fell prey to social isolation, which further led to problems like sleeplessness, anxiety, depression, ill temper, and restlessness, as they frequently report experiencing apathy, disinterest, or a sense that their

presence is insignificant or, worse, a burden to the internship site

The researchers have also uncovered a few other novel findings regarding the problems faced by teacher-interns during their virtual internship tenure, including over-dependence on the internet, distractions from the background (family, neighbours), health issues, and a lack of team effort. Overdependence on the internet has taken away writing habits (flair) from flourishing to no restraint, thus affecting their performance in tests. The background noise was another complaint, generated by amplifiers being played in the locality, television sound, people talking on the phone, and homes occupied by relatives, etc., which caused a disturbance. This was more so because not everyone had a room of their own; other family members shared the space, leading to noise. Sitting glued to the computer screen for hours at a time caused headaches, backaches, dizziness, fatigue, and attention deficit, to name a few. Another major problem addressed by trainee-teachers was the lack of teamwork and a proportionate distribution of work, primarily due to poor communication and information exchange among coworkers.

What made teaching in the virtual internship effective (during the lockdown) was the optimal use of the internet in every earnest way, and, needless to say, every stakeholder was involved in making their operations smoother and more viable, keeping the paradigm shift in mind. In line with Gurung's (2021) findings, the researchers found that the trainee-teachers focused on practice-based tasks rather than the lecture method of delivery. Likewise, classroom interaction was highly approved and followed while taking classes online. Student-teachers attempted to raise topics of discussion that aligned with their students' interest areas, thereby maintaining their

interest levels and ensuring voluntary participation. In corroboration with Hadar et al. (2020) 's findings, the researchers found that trainee-teachers played a crucial role in coping with their emotions, executing tasks in controlled situations, and tactfully managing conflicts that arose in day-to-day work. Thus, it can be derived that the virtual internship experience has strengthened their socio-emotional well-being and shaped their personality holistically.

The researchers found the involvement of peer-team review to have played an essential role in making virtual-teaching effective, which is in the same line of thought as the findings of Faucette and Nungent (2015), where peer-team evaluation happened to provide a certain kind of guidance to trainee-teachers and helped in setting the bar high for the significant other. The researchers have uncovered several additional novel findings beyond those presented in popular literature, including live teacher demonstrations in online mode and strategies to motivate students to engage in class. Teachers record themselves conducting the experiment in a live demonstration and upload it to YouTube for further reference. Trainee-teachers also tried to motivate their students through innovative games and discussions (based on their areas of interest), allowing students to share their personal experiences and using various audio-visual aids.

Similar to the findings of Velle et al. (2020), the researchers have found that trainee-teachers have tried to interpret pedagogy in the online mode in new and innovative ways to suit the shift fitfully. In line with Pepito's (2021) findings, the researchers found that virtual internships encouraged the development of trainee teachers' technical knowledge, thereby strengthening their web-based orientation and enhancing productivity. In sync with the findings of Jinyoung

(2020), the researchers found that the virtual internship had worked wonders in improving the screen presence of the majority of teachers (who were photo-sensitive), thereby enhancing trainee teachers' confidence levels, which in turn helped them maintain class control. Similar to the findings of Sulis et al. (2021), student-teachers learnt to find discourse on crises on their own by getting their hands dirty as they dissolved and addressed the issues of concern. Thus, they were invigorated with personal values, which is similar to the findings of Sepulveda-Escobar and Morrison (2020).

The findings indicate that virtual school internships primarily served as a pedagogical compromise, shaped by institutional urgency rather than institutional readiness. The absence of structured learning management systems, uneven mentor support, and limited opportunities for embodied classroom engagement reveal systematic gaps in teacher preparation frameworks under crisis conditions. The challenges are further compounded by digital inequality and structural disparities, suggesting that unplanned virtual internships may reproduce rather than mitigate inequalities.

The researchers, however, found a novel result: the trainee-teachers showed pliability in time and space and ultimately saved money. Student-teachers could save money by staying home and avoiding the cost of public transport or spending cash on canteen food. They found more preparation time or buffer time before taking classes, and one could use the available resources quite judiciously, provided they had good intentions and a high level of commitment to make the most of what was provided. Virtual internships have emerged as a promising resource for college students seeking remote positions, helping employers manage intern experiences, expand their

networks, and enhance job-seeking skills. This has played a crucial role in introducing the new era of virtual internships as an age-relevant and thriving opportunity.

Conclusion

Through thematic analysis, the researchers have sought to consolidate the complex challenges student-teachers faced during their virtual internships during the COVID-19 pandemic, while foregrounding the efforts they employed to sustain pedagogical effectiveness under constrained conditions. The researchers have discussed in detail how virtual internships helped student-teachers turn the pandemic into an opportunity rather than treat it as an adversity. The virtual internship led student-teachers to overcome many unforeseen challenges, namely, internet glitches, an irregular and insufficient power supply, a lack of a conducive environment, students' lack of inclination towards studies, and, to top it all, the dearth of personal touch and teamwork was a big amiss. However, the trainee-teachers are found to have poured their heart out and might have found ways and means to make their online classes more effective, namely by making optimum use of the technology, preferring activity-based and interaction-driven instruction over transmissive methods, foregrounding student participation, and drawing on socio-emotional competencies to maintain the classroom momentum. The virtual internship gave students a fair chance to master themselves in web-based learning. They tried and innovated ways to make pedagogical learning more insightful, and they learnt to revise their camera presence from initially being shy to gradually overcoming photo consciousness. The virtual internship may also be a blessing in disguise, as trainee-teachers acquired a life skill by

learning how to micro-manage crises through self-involvement.

The findings of the study underscore the urgency for teacher education programmes to move beyond ad-hoc virtual arrangements toward a structured, policy-backed, and pedagogically intended policy-practicum framework. While virtual school internships cannot substitute

the embodied, relational depth of physical classrooms, they can perform as complementary pedagogical spaces when designed with clarity of purpose and adequate support. Future research should therefore extend this inquiry through comparative analyses of virtual, blended, and traditional internship models to inform content-responsive reforms in teacher education.

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