Digital Skills And Digital Literacy: New Trends In Vocational Training Emotional State Of Teaching Personnel In Times Of Pandemic

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Abstract

Regarding academic paradigms of the teaching process, educational administration, including governance, the COVID-19 outbreak has impacted the government education institutions. Educators' conflict self-efficacy as well as job dedication are crucial for investigation in light of this approaching paradigm change. The studies demonstrated that conflict self-efficacy substantially impacted public focuses on teachers' job involvement as during COVID-19 outbreak. Educators' job dedication is positively predicted by their ability to handle ambiguity throughout this period. In addition, the information revealed a high level of conflict self-efficacy in concepts of intervention, prevention, accomplishment, and confusion governance, as well as a significant impact on work dedication among instructors of devotion to the classroom, dedication to pupils, responsibility to educators, as well as dedication to the job role. The study's outcomes also revealed a relationship between crisis self-efficacy and teachers' job dedication during the epidemic. This research establishes a theoretical foundation for a more comprehensive assessment of teacher digital competence (TDC). Furthermore, it discusses the term digital literacy and skill and how it affects teachers' emotional state. It also states the emerging trends in the field of digital education in the time of COVID outbreak.

Keywords: Teacher Digital Competency (TDC), Digital Skill, Digital Education, Digital literacy, Online Education.

Introduction

The COVID-19 Outbreak is a classic adaptable and transformational concern for teachers, even though there is no pre-configured roadmap to guide effective answers. Because as outbreak spread, educational leaders need to create solutions quickly also with unique circumstances in consideration. These short addresses the second in a sequence of briefs that define the conclusions of a relative study of developing academic necessities and solutions as the outbreak spreads across the sphere. The main drive of this sequence is to pace up the formation and execution of responsive responses to developing instructive subjects and safeguard young people's academic prospects during and after the outbreak.

The challenge of adequately educating educator development pupils to utilise digital technology in classrooms efficiently and productively is a long-standing one. Historically, teacher educators have chosen separate ICT programs or modules, generally placed initially in a pupil's certification programme\textsuperscript{11}. These are produced on the presumption that 'front workload' pupils with necessary skills and knowledge will assist them accomplish...
curriculum evaluation criteria as creating 'innovation embedded' modules of education, for practicum work in education, as well as, by extension, assisting them utilise digital technology successfully in their subsequent career as a teacher. Such classes are primarily concerned with increasing pupils' comfort and perspectives about utilising digital assets in learning and teaching, as well as gaining the software and hardware abilities to make this possible.

Even so, an increasing body of studies indicates that this method is inefficient for developing wider and deeper conceptions of the abilities and knowledge needed by educators in preparing pupils for the future and has been chastised for its singular scope on context-free, secluded technical knowledge. Though there is comprehensive accord on the obligation to formulate and maintain alternative solutions to educator growth that represent a more complete approach that converses pupils' fears about "a alienation between their innovation training and the remaining of their teacher education program," there seems to be difference about how to do it and also what such initiatives should include.

2. Digital skill and digital literacy in pandemic time

The digital age has become an inextricable component of contemporary existence. It is the place wherein individuals interact, study, buy and enjoy themselves for many individuals. The virtual age has the ability to bring individuals from all over the globe together. However, there are other obstacles in the digital world[2]. It's linked to a variety of cyber-threats, including hacking, cyberbullying, identity fraud, people trafficking, technology dependency, including invasions of privacy, as well as the WHO has classified gaming addiction as a medical disease.

The current COVID-19 epidemic has hastened the broad digitization of many previously unprotected industries. K12 students have become one of the most impacted groups, with many being compelled to move to online learning. Issues including access, low digital skills, technological inequality, and systematic racism have made the quick change difficult. We immediately want a worldwide harmonised approach to assist students in acquiring the digital skills required to stay up with the fast-changing reality. Technology literacy and a larger set of digital abilities are particularly crucial in facilitating engagement and supporting students in maximising possibilities and limiting hazards in the virtual environment.

Cyber-risk impacts

Long well before COVID-19 epidemic, the virtual age influenced kids. The digital age has provided enormous advantages, but the rate at which digital innovation evolves outpaces our ability to adapt regarding education, policy, and culture. Because of this mismatch, cyber-risks have spread among youngsters who have been left exposed without proper preparation or precautions[3]. A team performed a survey of over 145,000 kids and teens from thirty nations to learn more about the prevalence of cyber-risks throughout the world1. Members were provided questions about their encounters with various sorts of cyber-risks, and rating criteria based on the frequency of exposure were devised.
According to the poll’s findings, 60 percent of youngsters aged 8 to 12 were vulnerable to cyber, including gaming addiction, cyberbullying, sexual seduction, and aggression. Prominently, 45 percent of kids internet were victims of cyberbullying, 39 percent faced reputational jeopardies, 29 percent were uncovered to the sexual and violent
subject matter, 28 percent faced virtual pressures, 17 percent had dangerous interactions like offline meetings with random people or sensual touching, thirteen percent had a gaming disease, and 7 percent had a social media illness.

The findings also revealed that important components of digital security and infrastructure differed substantially across nations. Children's internet safety was ranked better in East Asian and Western nations. Cyber-risk avoidance, controlled digital usage, digital literacy, and digital connectedness were similarly high in East Asian nations\(^4\). Western nations, on either side, seemed to have better social infrastructure, supervision, and training. These findings show that countries in all corners of the globe may develop and benefit from one another's quality standards subject that has gotten a huge amount of care owing to COVID-19 outbreak.

**An academic catastrophe**

The worldwide K12 system has mainly gone online in the last year, affecting pupil academic achievement and well-being. Moreover, COVID-19-related school closures are reported to have impacted up to 84 percent of the globe's pupil populace and are still occurring in numerous regions throughout the globe. Many schools have begun to use online educational technologies to provide online instruction while pupils remain at home as a temporary solution. These approaches have improved the physical safety of students and instructors while also rekindling enthusiasm in pedagogical, technical innovation\(^5\). Nevertheless, there have been some reservations about implementing new types of online learning so quickly, particularly in learner performance and safety issues. As educational systems, instructors, and students become more accustomed to the web-based education atmosphere and develop virtual learning methodologies, such difficulties will likely be solved over time.

More immediately, the shift to online courses has increased pupils' access to cyber-risks and harmed their socialization. Students are becoming habituated to spending a lot of time digitally due to online programs, blurring the boundaries between real and digital locations. Children, for instance, are predicted to spend a lot of time on social networking platforms as well as video-sharing stages as they were earlier before, and increasing time on screen has been linked to technology dependency and psychological illness issues. A spike in cyberbullying has coincided with education cuts and the shift to online courses in terms of technology dependency.

It's critical to confront these rising cyber threats. Even before COVID-19, the majority of students had insufficient digital security assistance and were unable to education solely in the digital realm. COVID-19 serves as a catalyst for transformation and the development of crucial digital skills in pupils.

**Digital skills schooling**

There have been several initiatives to develop digital skills schooling courses to date. The Educational Approach 2030 of the "Organisation for Economic Cooperation and Development (OECD)" lists digital literacy as a key foundational ability for future schooling. Nevertheless, there was a lack of coordination amongst programs until later, since there was no universally acknowledged definition of notions like digital literacy. As a result, while the digitization of K12 students' learning grows, the influence of digital skills training programs has been restricted.

"The OECD, IEEE Standards Association, and DQ Institute, in collaboration with the World Economic Forum, pioneered the creation of the newly adopted IEEE Standard for Digital Intelligence (DQ) Framework for Digital Literacy, Skills, and Readiness to address this problem". This collection of globally recognised standards creates a shared foundation for coordinating global initiatives to improve digital proficiency.

These international standards are based on the DQ paradigm, which specifies a collection of technological, cognitive, thinking skills, as well as socio-emotional skills that may help people succeed in the digital age. Whereas digital intellectual ability has heretofore been mentioned in relation to social connections with the knowhow and the incorporation of computer media into corporate strategy\(^6\), the DQ structure involves the use of digital abilities learning throughout 8 capabilities, such as individuality, use, security, safety, emotional intelligence, education, interaction, as well as privileges, and also 3 dimensions of citizen status, creative thinking,
and competitive nature. It was originally mentioned in a World Economic Forum article 14 and then in a white paper published by the DQ Institute in 2017.

The DQ framework has been utilised to develop basic digital abilities in over 1 million kids in over 80 countries of the “#DQEveryChild digital citizenship educational campaign”. The curriculum was built around the “DQ World online learning system”, and pupil’s learning results showed that the skills could be learned using this structure. As seen by positive prosecution study instances in nations like Turkey, Mexico, and Thailand, many government entities, non-profit organisations, and schools have started to embrace the DQ model.

The #DQEveryChild program established a significant premise for developing the students' technology capabilities, as well as people assume that the DQ platform's biggest potential lies in nurturing a revolution system in which diverse shareholders can collaborate to develop and implement a variety of digital skills schooling as well as training curricula which are applied to individual learning including thinking goals. The Coalition for Digital Intelligence's recently established 1 Billion Digital Abilities Initiative exemplifies this goal and is a cry to act for dedicated partners to engage together just to enable 1 billion individuals with digital literacy, particularly K12 pupils, educators, and families, within a decade. The initiative is based on the premise that delivering significance is a universal right that can help countries achieve more shared prosperity, happiness, and wealth in the long run. To do this, the project will bring together a variety of stakeholders, including content creators, project leaders, research scientists, and teachers, to work toward the following goals:

1. Establish a worldwide system of associates dedicated to creating and executing digital literacy training and education based on DQ international standards while also encouraging collaboration. "The DQ Institute, Alannah & Madeline Foundation, and Accenture" recently announced a new collaboration to allow eleven to fourteen years children in "Australia and New Zealand" to obtain an “eSmart Digital Licence based on Accenture's Skills to Succeed” including the DQ platform's 8 characteristics.

2. Create a method for evaluating digital skills training and ensuring compliance with DQ worldwide requirements. This platform will give information on the sorts of skills taught in various programs in order to aid curriculum development.

3. Create micro badge credits for pupils to complete learning goals in digital skills certification programs. Credits may be used to reward learning and offer proof of achievement, and they can also be used to improve training for teachers and parent understanding.

4. Develop an online evaluation tool that allows people and organisations to test their digital skills across skills using micro badge credits. The findings might help define internationally agreed achievement criteria for evaluating digital skills training and education results and determine the effect of particular efforts.

5. Encourage continuous development of the DQ international values depending on pupil and educator engagement, shareholder interaction, including informative studies. The pedagogy of digital literacy training and education would be strengthened by a further conceptual framework of the DQ structure and quotient. Also, there is a necessity to create rigorous ways to assess the instructional effectiveness of various programs to achieve specified learning goals. Within the DQ context, such input may also be utilised to enhance programs and discover best practices.

3. New trends in vocational training of teaching personnel

Institutions across India, and hence the world, have abandoned conventional classes in the case of digital education as a consequence of Covid-19. While the majority of private Indian colleges have handled the transition easily, universities are still adapting. There have even been questions concerning the format of programs and the destiny of assessments and assessments, including if or not they can be done electronically.
Pupils are attached to their phones as well as digital displays as faculty struggle to find new methods to manage this abrupt shift to online education. What would happen to higher education if the lockdowns went on for a long time? What are among the most serious situations that need reflection? What does this imply for students in the future?

**First response: Going digital**

The major institutions, such as “Delhi University (DU) and Jawaharlal Nehru University (JNU)”, ordered a halt of courses till March 31 as the Covid-19 problem broke out in India. Whereas the rest of the group awaited what would occur resulting, they began looking into digital courses.

Private universities, such as “Ashoka University”, transitioned to an online form by mid-March and also were mostly untouched by the March 24 countrywide shutdown. “Some of our professors are conducting online courses. As a result, academic activities at Ashoka University are far less impacted,” explains L S Shashidhar, professor as well as dean of study.

IITs have also begun to provide online courses and also to share learning material and audio recordings with pupils through the internet. “Academic staff is accessible online throughout interactive activities for pupils to address their doubts,” adds Timothy Gonsalves, director of IIT Mandi. Educators are augmenting Moodle with other social networks and internet networks based on the type of the program and pupils’ internet connectivity.

The institutions and instructors contacted by Business Standard agreed that transitioning to online instruction was not challenging. They warned that if the lockdown lasted longer, they would need to invest in infrastructure and provide more training for instructors and kids.

**Transition to digital**

There are two methods for delivering online education. The first is via the use of recorded lessons, known as Massive Open Online Courses, when they are made public (MOOCs). The second option is to attend live online courses through webinars or zoom meetings. In addition to reliable IT infrastructure and faculty and staff who are happily educating digitally, universities need high-speed internet and efficient educational systems or professional learning communities. Students will require high-speed online and desktop/mobile devices to join such conferences or view the lessons which are pre-recorded.

Covid-19, according to “Bharathi Balaji, chief of business at NPTEL India”, has encouraged establishments, professors, and pupils to embrace web-based learning in unprecedented ways. "NPTEL has expanded since its inception, although percolation was only adequate. We have spent the last six years explaining what online education is and attempting to break down a person's barriers. There is now no choice but to accommodate and employ digital education as a result of Covid-19."

**Technology enables as well as can limit**

“Dinesh Singh, a former vice-chancellor of DU”, is a major advocate of using innovations to its supreme ability in higher education. Innovation, he claims, may permit various teaching approaches as well as the education of many persons throughout the nation. "In a nation like India, where there are not many instructors or ease of access to strong institutions,” he argues, “we should undertake a deliberate, methodical approach of using innovation to support learning.”

Face-to-face teaching may have certain benefits, but Singh trusts it is no longer required, given the profusion of virtual resources and novel education techniques accessible. "Using bare-bones technology may have a significant impact. The less face-to-face instruction you do, the better; you must have some, but ineffective. Educators must encourage kids to explore. They must be teachers and mentors, not lecturers who stand in front of a classroom while pupils take notes.”
"Imagine a brilliant mathematics instructor conversing with pupils while digitally capturing the whole session, he continues. He then posts it on the internet and updates it with daily supplemental videos, notes, remarks, and student assessments over time. That would turn into an in-depth procedure. It would be available on the internet and accessible to anybody interested in learning. This is just one example; there are a plethora of creative methods to use technology in learning and teaching.

Not just about classes

Many people believe that online learning is more difficult than just speaking into a microphone solely on a single end and hearing in on another. Students and faculty address other issues with this kind of education on both ends of the spectrum.

Ashley NP, an English professor at “DU's St Stephen's College”, points out that a lot of education is missing when schooling moves digital. “Education is about more than simply lessons. Interactions, widening views, free-flowing open conversations, debates, and mentorship of each student are all part of the program. While we attempt to do everything, a lot of information is lost in the translation on the internet platform.”

“Yamini Mookherjee, a second-year law student at Jindal Global Law School”, emphasises the obstacles, particularly in a field like law wherein debates and deliberations are essential. People can't interact in the same way we can in a classroom online. Vivas, debates, moots, and group discussion on polarising themes need nuanced viewpoints, which are lost when done electronically,” she argues.

Several emerging colleges have taken their approach to online education. Since 2011, the “Takshashila Institution”, a committee and public procedure establishment, has provided online learning. Its programs operate digitally on a unified learning management system, including recorded videos, live webinars, and interactive workshops, and it has over 3,500 graduates.

"It is feasible to accomplish all of that if you know how to use the technology," Takshashila Director Nitin Pai says of whether online learning manages to combine mentorship, human interactions, and brainstorming. Both professors and students must be familiar with technology as a significant success component.”

Going forward

What does the future hold for online learning? Mukul Kesavan, a history professor at Jamia Millia Islamia University in Delhi, emphasises the issue of injustice by stating that only a few of his pupils can join online courses. "Creating class emails and study lists, as well as sending lecture recordings, is one approach to get around.” However, this is not a long-term study that can be perpetuated barring everyone from towns and communities where information show is clearly an issue.”

He goes on to say that institutions like Delhi’s "Indira Gandhi National Open University (Ignou)", which provides distance learning and can successfully use technology, benefit from digital learning. "This can work successfully if universities can enforce Zoom teaching if courses are brought to nodal locations, and the organization feels responsible for connecting pupils there." However, if done incorrectly, it will serve as another legitimization of poor, worthless online learning.”

He offers an expression of warning regarding how there may be a move to starve already-strapped community colleges under cover of digital instruction. “The state may determine that online teaching may be utilised for undergraduate program in a dematerialized manner, allowing public institutions to slash wages, maintenance, and financing.” Also, the concept that instruction may be dematerialized might lead to the following ideas—mass-educating individuals inside state education utilising resources created elsewhere. This is particularly true in STEM topics, which might lessen institutions’ investigative bodies that have outsourced academic value to MOOCs created abroad.
Exams, courses, and grades are seldom discussed in higher education. Rather, it is about a learning process that qualifies a pupil to enter the staff with the necessary information, abilities, and personal experiences.

For the time being, this is sufficient. But what occurs after a few months? Will the institution be held liable if we don't have good marks or if the jobs suffer from our struggles with online lectures and finding out how to assess our learning, wonders a final-year social science student at a Delhi public university? He does not want to be identified.

Pupils have expressed dissatisfaction with the lack of transparency on the future and the plan of action, particularly in regards to tests, outcomes, apprenticeships, and employment. Whereas most higher education institutions are doing their best to deal with the issue, no one knows what'll happen next.

Most teachers think that there is any need to invest in building regulated online learning systems, rather than relying only on apps like Google Hangouts, and that both students and instructors need to be trained. Others emphasise the need to reflect on the fauna of such networks and how pupils are educated utilising various connected gears and methodologies while maintaining convenience as well as equality issues in mind. All of this must also be understood across academic fields and institutions. We plan a course forward by considering the many perspectives of specialists and incorporating all of the lessons learned from the summer of 2020.

4. Emotional state of teaching personnel in pandemic time with reference to digital literacy

The schooling of almost 1.6 billion students, or over 90 percent of the globe's entire registered school students, has been and remains to be impacted by the COVID-19 epidemic as classrooms and various academic facilities throughout the globe were shuttered.

This situation has generated a unique environment in which classroom management, innovation, and invention have sprung to the fore. Educators have started working collectively and individually to discover solutions to create innovative educational experiences for their learners all over the world, in contexts spanning from locations where teachers and students have had no computer systems or internet connectivity toward others where digital training has taken a giant leap forward.

Some instructors drove for hours every day during the lockout to form small study sessions around a computer. In contrast, others went door to door to give hundreds of desperately required school lunches, and still, others conducted their courses from the back of trucks!

Instructors were grateful to intervene in the plurality of situations with little notice and little preparation time. Programs were altered or abridged, lecture plans were transformed, also working flairs were overturned[14]. Educators maintained to carry instruction to their pupils, whether online, cellular phones, tv, radio broadcasts, or the mailbox.

Instructors produced take-home packages for their pupils in many low-income nations wherein internet, and mobile connection access is inadequate or non-existent.

Educators have developed networks of practice and help social groups on social media networks like Facebook and Twitter to help them in their profession.

COVID-19 has therefore added greatly to the burden of instructors, who are already dealing with various issues. The Global Task Force on Educators for Education 2030 issued a "Call for Change on Educators" in connection to the issue, which argues for educator engagement in short-, medium-, as well as long-term preparation and policies as they go ahead.
It's no wonder that instructors demonstrated initiative and innovation during the COVID-19 issue. They have shown this time after time once. Since it has accomplished per year since 1994, UNESCO will commemorate their efforts on October 5th, World Teachers' Day, the 50th anniversary of the signing of the 1966 ILO/UNESCO Declaration on the Status of Teacher’s.

The day serves as an opportunity to honour teachers across the globe, reflect on their accomplishments, promote understanding of the difficulties they face, and emphasise their involvement in achieving worldwide academic goals. As we move beyond the COVID-19 dilemma and into what will surely be novel and mostly uncharted terrain, it will also be a chance to reassess the position of educators in educational standards and communities in general.

5. Conclusion

In the current environment, when educators in the general education industry face challenges in responding to a paradigm change in learning and teaching, boosting conflict self-efficacy is critical for preserving and enhancing educators' dedication to their jobs. The study showed that conflict self-efficacy substantially impacted public focuses on teachers' work engagement even during the COVID-19 epidemic. Educators' job dedication throughout this situation is best predicted by managing change[15]. Educators' high effectiveness confidence in successfully handling unanticipated workplace conditions produced by the outbreak predicts their deep commitment to fulfilling their official and pedagogical roles and obligations in the classroom. Furthermore, in a COVID-19 disease outbreak, effects uncovered a high level of conflict self-efficacy in aspects of operation, prevention, accomplishment, and ambiguity strategic planning, as well as a level of work devotion of teachers and administrators in carrying out the tasks referred to school, devotion to pupils, dedication to classroom instruction, and commitment to the field of work. The correlation findings also revealed a relationship between emergency self-efficacy and educators' job dedication during the outbreak. In this research, a clear image of the function of the identity of job employees who believe they are equipped to handle problems is formed, culminating in the service and upkeep of work dedication. Moreover, during the COVID-19 issue, this research strongly showed the necessity of instructors' job dedication. Teachers must stay dedicated to providing accessible and excellent education to all students regardless of social, cultural, economic, or regional origins when they make urgent changes at the workplace, including changes from actual teacher-student interaction to learning and distance, mixed modalities.

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