

Digital Literacy or Digital Competence: Aligning Teacher Competence Frameworks to 21st-Century Educational Context

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Abstract

Over time, diverse frameworks, models, and literacies have emerged to direct teacher educators in their endeavors to cultivate advanced digital skills in their students, that will motivate them to utilize modern technologies in their future classrooms. For the most part, these revolve around the advancement of students' aptitudes in using 'instructive' applications and meticulously gathered information or comprehension represent a successful fusion of academic elements, content, and innovative information viewed as aiding the integration of computerized incorporating assets into education to revamp subject learning results. Inside educator schooling establishments, courses intended to improve these abilities are normally passed on as independent units, or there is an assumption that they will be delivered by coordinating innovation in different controls or through approved evaluation. Notwithstanding, different examinations suggest that the current spotlight on subject-related specialized and data abilities doesn't plan students enough with the expansiveness of data and capacities needed in the present classrooms, and past. This article aims to align teacher competence frameworks to the digital context of the 21st century. It includes a critical analysis of competence frameworks such as the TVET Teacher Professional Competency Framework, UNESCO Competency Framework, P21 21st Century Skills Framework, and the National Competency-Based Teacher Standards and their pertinence to the present scenario. The conversation moves past specialized proficiencies and, conceptualizations, affirming more comprehensive and more extensive understandings that see the unpredictable information and abilities youthful people need to work ethically, safely, and beneficially in assorted, carefully intervened circumstances. The ramifications of the structure are talked about, regarding its interdisciplinary nature and the prerequisite of all workforce to connect intentionally and purposely in conveying its goals.

Keywords: Digital competence, competency framework, digital literacy, Teacher competencies, 21st-century competencies, Teacher digital skills, 21st-century education context, Teacher Training, Teacher proficiency, Digitization

Introduction:

The COVID-19 pandemic has created unexpected demanding situations in India's academic landscape. The pattern of education has modified overnight. Educational establishments have switched to online learning, training, and exams. This unexpected transfer and overdependence on digitization has a fair proportion of constraints. Given the multifarious use of rapid-changing virtual technology within the workplace, new desirable skills have emerged. The use of those technologies has contributed to remodeling knowledge and developing skills into a lifelong technique. Indeed, people now should expand and refresh their abilities and expertise to keep abreast with the regular improvements and new traits within the virtual world. Amid this change, in 34 years, unexpectedly Ministry of Human Resources and Development, presently called the Ministry of Education, delivered the New Education Policy on the twenty-ninth July 2020. Expectedly, the inclusion proposes various measures for empowering advanced learning and improving foundation necessities. Be that as it may, given the improved schooling framework in India, there exist a few barriers to availability and the limit of extensive appropriation of online teaching and learning.

Problem Statement:

The attention to schooling and education in the preceding era was for stability, while the present day and future are for instability (Kress, G., 2000). Along with the competence profiles, instructors have to undertake and adapt to modern pedagogies and empower accountable learners. (CAENA Francesca, REDECKER Christine, 2019). In this, the function of instructors has ended up becoming more and more traumatic because, in addition to enhancing current knowledge and skills, at present it's far more vital to broaden their digital literacy so that they can efficiently use new techniques within the classroom. Corresponding to instructor schooling, Lund et al. (2014) address the particular difficulties faced by instructor teachers in growing an all-encompassing perspective on the computerized fitness of their students. They have pointed out that instructor teachers are required to prepare their students roughly the use of present and impending virtual assets in their expert practice, anyway additionally about how to make their students, "ready to utilization of rising innovations in effective manners" (p. 286). Accomplishing that, is specifically, testing, since it calls for providing food for extra than the prompt usefulness needs of students, to build an extraordinary fitness, with an end goal to permit them to decipher into explicit educational, learning plan, classroom association and assessment rehearses in request to utilize virtual resources for help their own one of a kind students' benefits information (Lund et al. 2014). Weinberger, Fischer, and Mandl (2002, In: Amin, 2016) defined that nowadays instructors are anticipated to end up technologically orientated to be extra cooperative, collaborative, open-minded, and facilitators who will assist students to examine in a digital environment. No surprise that during this digital age, instructors, an effective integration of the latest technology into the classroom relies upon the ability of the teachers to expand training and collaborative work, to create new learning environments, and to link new pedagogy with technology. For all those, it's vital to help the teachers apprehend what abilities they have obtained and what extra is needed through aligning competence frameworks to the twenty-first century demanding situations and defining the requirements of teaching professionals can serve a couple of functions at special levels in training.

Defining Digital Literacy and Digital Competence:

Digital Literacy was first used by Paul Gilster in his book in 1997 as:

...a bunch of capacities to utilize the internet, discover, control, and alter computerized records; include in interchanges, and associate with a web data and organization. Advanced proficiency is the ability to successfully utilize and analyze virtual assets, hardware, and contributions, and use it on deep-rooted cycles of learning.

UNESCO (2011) has described digital literacy as an umbrella term for abilities inclusive of ICT (Information and communication technology) literacy, technological literacy, and information literacy. ICT literacy implies personal abilities that assist them to take part in a society in which "offerings and cultural offerings are computer-supported and allotted at the internet". Technological literacy is associated with a deeper expertise in technology and includes user and technical computing abilities, at the same time information literacy makes a specific use of the ability to apply virtual resources adequately, to understand a way to identify, find, and examine each resource. All those phrases have been related to the powerful use of virtual assets in coaching and gaining knowledge and were promoted as additives to an inclusive view of digital literacy. As Helsper (2008) recognizes, achieving a novel meaning of computerized education is troublesome, on account of constantly advancing mechanical, social, and cultural scenes rethinking what, while, and how virtual innovation is used in private and expert exercises. In the expressions of instructor preparing, creating carefully educated students has typically proposed the prioritization of specialized capacities in the use of virtual hardware and structures regarded reasonable to scholastic settings, and sorting out how those might be utilized inside explicit units of picking up information (Admiraal et al. 2016). This method accepts that doing this, "furnishes hopeful instructors with a bunch of basic abilities by which they can change to their study hall practice" (Admiraal et al. 2016, p. 106). Notwithstanding, those strategies were scrutinized for their thin spotlight on aptitude, loss of realness, inability to assess different socio-social settings for utilization of technology, and their incapable, reductive plan (Gruszczynska et al. 2013; Lim et al. 2011; Lund et al. 2014; Ottestad et al. 2014). Numerous most recent explorations have alluded to a reconceptualization of the consequences of educator-preparing programs, recommending the current skills focused on advanced proficiency accentuation be surrendered, for more extensive computerized competency models that understand the assorted abilities and propensities needed by future teachers. Thinking about, the personality of computerized skill, Janssen et al. comment that:

... computerized competency incorporates more prominent than understanding an approach to utilize devices and applications... that is unpredictably connected with abilities to communicate with ICT. Reasonable utilization of ICT calls for remarkable comprehension and mentalities concerning moral elements, protection and security, just as comprehend the part of ICT in the public arena and an uplifting disposition for the rising advances... (Janssen et al. 2013, p. 480).

While this conceptualization perceives the pertinence and centrality of specialized comprehension and capabilities, it embraces a lot more extensive socio-social position through flagging the need to perceive and review more extensive ramifications and results of advanced innovation on individuals and society. This speaks to a huge test for instructor teachers, who now presently don't have any desire to more readily help their students to productively use virtual assets of their future classrooms, anyway need to assist them with perceiving and expand a test for more extensive worries around innovation use, and its effects. Moreover, the view of fitness suggests a need for reliable updates, reflecting acclimations to innovative structures and utilizing that, "bearing psyche the advancing idea of innovation" (Janssen et al. 2013, p. 474). This calls for instructor teachers to constantly repeat on bleeding edge abilities and wants and wherein fundamental get

admission to master aging, reacting to hurriedly changing over scholarly conditions and potential outcomes managed by innovative enhancements.

Frameworks Supporting Teacher Digital Skills Development:

Digital literacy plays a crucial role in training and due to this continuous education for all teachers is essential and recommended. In this regard, Digital Competence Framework For Teachers (DigCompEdu, 2017) explains how virtual technology can improve coaching, education, and training, in six aspects. DigCompEdu (2017) defined professional engagement place to be the place where teachers discover ways to make organizational communication with their students, colleagues, and parents by using virtual technology and enhancing their very own digital pedagogical practice. Supporting the improvement of the educator's computerized competency, numerous competency structures have moreover laid accentuation at the requirement for abilities inside the territory of correspondence, coordinated effort, ICT-related capabilities, and social as well as social awareness. UNESCO ICT-CFT, TVET Teacher Competency Framework, P21 - twenty-first-century system, and NCBTS focused on specialized/operational elements of ICT and innovative skills—especially an approach to utilize PC gadgets and programming projects to get access, work with, and analyze assets for utilizing it in educational plan and preparing. ICT is the focal point of each system. The improvement of ICT doesn't constantly appear to be a contention for the need of most recent abilities by all systems, anyway it's additionally identified with a whole new arrangement of capabilities around an approach to proficiently utilize, oversee, analyze, and pass on assets all through. While a couple of systems underscore ICT-related skills as independent areas (P21 and TVET), others focus on more prominent integrative methodologies wherein the improvement of ICT abilities is installed inside different twenty-first century competencies, which incorporate basic reasoning, critical thinking, correspondence, and cooperation. While winning structure accentuations on advanced education ideas of specialized, instructive, and subject information proceed onward toward advising the abilities needed by graduating educators, it has contended that those are deficient in present and future scholastics. It is clear that the existing frameworks (UNESCO ICT-CFT, version 3) need to think about empowering cooperation between various sectors (private/public/instruction) expanding on previously existing work and focusing on what is 'feasible'.

The system additionally need to call for improvement of new assessment methods and instruments that encourage and allow the use of the acquired competencies in authentic settings to make learning visible. While the TVET teacher competency system centers on the teacher's significant subject knowledge, practical information, academic abilities, and sensible activity on the premise of instructive values and information as the key to moving forward the quality and status of TVET, at the same time it should stress on the need to fortify and upgrade the technical and vocational instruction and training program. P 21 framework incorporates Information, Media, and Technology Skills as required competencies for effective citizenship. But in any case, they need categories significant to professional aptitudes and information on engineering, science, and technology. In the framework, P 21st-21st century abilities, Self-management/self-development, or Life and career skills are tended to as critical. However, administration of time, information, and assets of self and others are not included. Individuals without adequate information, instruction, and training, battle to keep up. The framework of 21st-century abilities and building criteria might need to address time, information, and resource management aptitudes to better prepare students for effective careers. Presently students need to have more information than procedural and specialized abilities and increase from virtual technology's utilization in educational programs and subject aging. It might need to decently be anticipated that educators preparing students need to endeavor to expand their capability past instructional programming of virtual innovation, toward a more prominent comprehensive view including private and cultural concerns. While that is a hard

undertaking it's miles a fundamentally basic one, if the researchers they train are to be profoundly sorted out to highlight profitably and altogether in carefully interceded private and expert conditions.

Aligning the Frameworks to 21st-century Educational Context:

Preferably, developing extensively based virtual fitness inside educator training programs requires the commitment of all workforce and interdisciplinary techniques. Occasions to expand the abilities inborn in the mainstays of the structure need to at this point not be viewed as the sole responsibility or inside the range of abilities of one or instructor teacher. Effective execution requires the investment of all preparation programs, which need to have a consistent ability of the expansiveness and meaning of the aptitude. Personnel may attempt an interdisciplinary strategy to the portable educator instruction programs, rather than the siloed, field models that win nowadays. Habowski and Mouza (2014) referenced that interdisciplinary methodologies to instructor schooling can impressively decorate researcher acing, and may offer a brought together and facilitated reason for turning in the system's targets and objectives. In any case, interdisciplinary methodologies aren't typical, and the unbending, subject-based information on colleges wherein most extreme educator preparation happens, is generally difficult to change. Despite this, the current structures might be utilized to guide or review the substance material and instructional method of ebb and flow or new educator training guides all through field districts, to view the amount to which they give prospects to students to develop more prominent all-encompassing understandings and abilities lined up with the frameworks. However, The NEP 2020, taking focal point of the current circumstance of schooling framework in India, tries to rouse a "warily planned and scaled pilot examination to choose how the upsides of online/virtual schooling might be harvested while tending to or moderating the disadvantages". As a piece of its pointers for utilizing virtual innovation for learning, the NEP destinations to build a fresh plastic new confident body - National Educational Technology Forum (NETF) - so one can normalize the substance material and teaching method, and support reception of continually developing innovation for web-based learning across the country. It might be inferred that even though the NEP gives a couple of progressive undertakings for the development of e-learning devices and tries to motivate indistinguishable get admission to age, it comes up short regarding the matter of tending to the grave auxiliary requesting circumstances that portray advanced learning in India. Proceeding, it's indispensable to bring about assembly among the objectives of the NEP and leader plans like Digital India that try to build admittance to correspondence, framework, and web availability all through the nation.

Conclusion:

Preparing educators to instruct students to apply innovation effectively and beneficially in universities is an enduring issue. There is a critical need to expand instructor schooling students' ability of the kind of aptitudes needed to highlight gainfully, all together, and morally indifferent and all the more carefully interceded conditions. The current structures and rules even though illuminate the essentialness of this as far as their future classroom jobs, training youthful students to urge them to fabricate potential to use gain from virtual assets and in sheltered, consistent, and reasonable ways, they have to also encourage and move a mix of ICT in all subjects, wherein the teacher instructors have a basic segment to play in actualizing using demonstrating and arranging and educating. It likewise shows that actualizing the system is the obligation of all staff, who need to have consistent and all-around advanced comprehension of its expectation, extension, and substance material. It is trusted that the current instructor competency system can offer a concentration on updating approaches and educational programs, planning, and activity, which would prompt improvement in the schooling of educators for our future classrooms.

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