

Teachers' Digital Competence During the Transition to Online Education

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Abstract

The emergency transition to online education made digital competence visible, but it also narrowed the concept to familiarity with devices and platforms. This integrative review treats competence as a chain of professional decisions: selecting an accessible tool, organizing content for mediated learning, enabling interaction, assessing evidence, protecting data and well-being, and improving through reflection. DigCompEdu, technological pedagogical content knowledge, and early pandemic studies are synthesized into a Digital Teaching Decision Chain. The review argues that operational fluency has educational value only when it supports a defined learner action and remains feasible under actual device, connectivity, and household conditions. It proposes evidence for each competence, including task samples, accessibility checks, feedback records, and privacy decisions, rather than self-confidence alone. Professional learning is organized around recurring teaching problems and peer review. This is a conceptual article and does not rate teachers or claim that one platform improves learning.

Keywords: teacher digital competence; online education; DigCompEdu; instructional design; digital assessment

Introduction

The emergency move online forced teachers to learn tools while redesigning lessons, communicating with families, assessing remotely, and managing their own work from home. A teacher who could open a platform was not necessarily prepared to decide when live video was useful, how to reduce file size, whether an online quiz produced valid evidence, or how to protect learner data.

Digital competence is therefore pedagogical and ethical, not merely technical. The DigCompEdu framework organizes educator competence across professional engagement, digital resources, teaching and learning, assessment, empowering learners, and facilitating learners' competence (Redecker, 2017). TPACK likewise emphasizes the interaction of technology, pedagogy, and content (Mishra & Koehler, 2006).

Purpose of the Article

This review asks which decisions define competent digital teaching during disruption, what evidence can demonstrate those decisions, and how schools can support growth without equating competence with platform use.

Conceptual Approach

Design and Source Base

Sources through 2021 were selected from digital-competence frameworks, teacher-knowledge literature, emergency remote teaching, and Philippine learning-continuity policy. Evidence was organized by the sequence through which a teacher converts a learning purpose into a mediated task and then uses learner evidence to revise it.

Frameworks were used as conceptual guides, not as validated local scales. Self-report studies were interpreted cautiously because confidence, access, frequency of use, and demonstrated quality are different constructs.

The Digital Teaching Decision Chain

Decision One: Match Technology to the Learning Action

Competence begins with the learner action, not the tool. Reading an explanation, discussing an interpretation, practicing a procedure, producing a performance, and receiving feedback require different media. The simplest tool capable of supporting the action often produces the most reliable access.

Selection should consider common devices, bandwidth, data cost, accessibility, age, and the availability of an offline alternative. Novelty is not evidence of pedagogical value.

Decision Two: Curate and Design Digital Resources

Teachers must judge accuracy, reading demand, copyright, cultural fit, file format, and cognitive load. A scanned page is digital but may be unusable on a phone. A long video may consume data while providing no point for practice or reflection.

Competent design segments content, states the purpose, provides a worked example, and tells learners how to respond. Resources should be versioned so that corrections reach the same channels as the original.

Decision Three: Build Presence and Interaction

Online interaction is not synonymous with a live meeting. Short voice feedback, moderated discussion, peer explanation, scheduled consultation, and annotated work can create presence asynchronously. The choice should reflect the purpose and the learner's ability to participate.

Teachers also need routines for nonparticipation. A missed connection should trigger an accessible follow-up route rather than automatic penalty.

Decision Four: Obtain Trustworthy Learning Evidence

Remote assessment requires judgment about independence, access, and feedback timing. High-surveillance solutions can introduce privacy and equity problems while failing to establish authorship. Short explanations, oral checks, staged drafts, and application to a new example may provide more useful evidence.

The teacher should be able to state what an assessment shows, what access it assumes, and what decision follows. Collection of more digital data is not automatically better assessment.

Decision Five: Protect Learners and Information

Digital competence includes privacy, security, accessibility, copyright, respectful communication, and boundaries around contact. Teachers need authorized tools, clear rules for recordings and images, secure handling of grades, and a process for reporting harmful content or contact.

Well-being is also relevant. Continuous availability, excessive screen time, and notification overload affect teachers and learners. A competent routine defines response windows and uses technology to reduce, not multiply, unnecessary work.

Decision Six: Learn From Use

Professional learning should examine real tasks and learner evidence. Teachers can identify one recurring problem, review a sample with peers, test an adjustment, and document whether access or understanding improves. This turns competence into visible practice.

School support matters. Shared templates, technical help, protected planning time, common platform decisions, and realistic reporting requirements allow individual knowledge to function.

Table 1

Evidence for the digital teaching decision chain

Decision	Competence evidence	Risk if omitted
Tool-task match	Rationale linked to learner action and access	Technology without instructional purpose
Resource design	Accessible task and version record	Unreadable or excessive materials
Interaction	Reachable contact and participation route	Isolation or exclusion
Assessment	Evidence-to-decision explanation	Invalid or inequitable judgment
Protection	Privacy, safety, and communication rule	Rights or well-being harm
Learning	Peer review and documented revision	Repeated weak practice

Note. The table is an analytic tool proposed in this article; it does not report field measurements.

Discussion

The decision chain prevents digital competence from becoming a list of software skills. Tool fluency matters when it enables accessible design, interaction, assessment, safety, and learning. A portfolio of tasks and decisions provides richer evidence than a confidence score alone.

Scope and Research Agenda

This review does not measure teacher competence or compare platforms. Frameworks developed in other systems require local validation, and pandemic practice reflected emergency constraints. Future studies should combine self-report with artifact review, observation, learner access data, and longitudinal evidence of professional growth.

Conclusion

Digitally competent teaching is purposeful, proportionate, inclusive, and reflective. The teacher chooses technology because it supports a learning action, examines what learners can actually do, protects rights and well-being, and revises practice with colleagues.

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