

ASSESSING TEACHER ABILITIES FOR ONLINE TEACHING

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ABSTRACT

Online teaching is the buzz word. - It is also the need of the hour. This paper describes what online teaching is, the tool to assess online teacher's abilities and evaluates one of the authors' conduct of online teaching. Though the teacher is not trained for online teaching specifically, the expertise, techniques and strategies acquired in face-to-face classroom setting were fine-tuned to meet the requirements of online interaction and received optimal levels of learner satisfaction. Now, the stakeholders of education must collaborate with digital learning specialists to train teachers and re-design higher education for online education.

KEYWORDS: *Collaborative Learning, Constructivist Framework, Continuous Professional Development, One-To-One Coaching, Process Facilitator, Student Feedback, Teaching Effectiveness*

INTRODUCTION

Education over Internet is so big it's going to make E-mail look like a rounding error (John Chambers, CEO, Cisco Systems, 1999)

Higher education sector is undergoing a huge shift right now as several educationists and education technologists have been forecasting for long, is now happening. Universities are willing to collaborate with digital learning specialists to train their teachers and re-design higher education for the newest online education. Institutions and students alike are under pressure not to lose academic year and re-invent their teaching-learning in the only possible way i.e. going online. The institutions & academic leaders, administrators and students in the long run is getting clearer that digital tools are complements, not substitutes to face-to-face learning.

The same networking and computing technology that has revolutionized global Commerce and many other facets of modern life is now being targeted at education. The result is online learning apps and online teaching (Charlene A Dykman and Charles Kathleen Davis (2008).

Peter Goodyear; Gilly Salmon; J Michael Spector; Christine Steeples; Sue Tickner (2001) observed that while it is possible that a shift toward greater use of online learning may reduce the relative cost of employing teaching staff, it seems that online teaching continues to be a labor-intensive service. However, Lobera K (2010) indicated that:

- The most vital element is the teachers' ability to emphasize their practice of being fluent in the areas of technology as online instructors. Without a proficient background in technology, it is difficult to become an online instructor.

- The shared teacher characteristics of promoting self-directed learning and enhancing creative abilities is through their preferred method of communication through the virtual classroom. The online environment necessitates a different level of responsibility for all stakeholders involved (i.e., teachers, administrators, parents and students). The accountability of each is shifted, so that students and parents are at the forefront of the learning process and the teacher facilitates the learning by promoting student's strength while balancing the student's weaknesses through the identified learning coach.

According to McKeachie W.J & Svincki M (2011) ideally, the online teaching / learning environment will provide ample opportunities not only for the dissemination of information, but also for the interaction that is so important for helping students to develop higher level thinking skills (e.g. through discussion, reflection, collaborative learning, interactive real-world case studies, etc.). Incorporating such strategies may challenge some teaching practices that you may have been using for years. This learning and teaching environment may also prompt teachers to take on a new role, that of a guide or facilitator, leading students through the process of information gathering, evaluation, and knowledge construction (Berge Z. 2000).

In addition, while a medium to high level of technological competency in using online tools (such as discussion forum, blogs, wikis, and tools for online grading and progress tracking) is optional for face-to-face teaching, it is now required for teaching online and at a distance. Thus, learning adequate skills and tactics for communicating with students, interacting with them, giving feedback, and responding to their needs are now essential for teaching effectively online or at a distance (McKeachie W.J & Svincki M (2011).

It is critical to understand the factors that contribute to learners' dropping out and to develop effective strategies in online course to support learners and help them persist in teach (Tina Stavredes, 2011).

Online Teaching

Online teaching is conceptualized on three perspectives: competency based, humanistic, and cognitive perspectives (Peter Goodyear et. al, 2001). As this paper is meant to assess the competence of an online teacher, we shall discuss competence-based perspective here.

Online teaching and learning mean teaching and learning that takes place over a computer network of some kind (intranet or internet) and in which interaction between people is an important form of support for the learning process. It includes both synchronous & asynchronous forms of interactions as well as interaction through text, video, audio, and in shared virtual worlds. The roles involved in online teaching are shown in Figure 1.

The process facilitator has six main task areas, namely, welcoming, establishing ground rules, creating community, managing communication, modeling social behavior and establishing own identity. Other roles of online teacher have relevant competences.

From an educational perspective, the sense of "being there" involves planning, intention and design in order to ensure effective learning outcomes and meet quality standards. Social presence is a concept that should be considered in all forms of education; therefore, whatever platform is used and whatever learning pedagogy is adopted, the feeling of presence should be created to make learners personalize their learning experience (Rosemary M. Lehman and Simone C. O. Conceicao, 2010).

Online learning programs are more scalable than their face-to-face counterparts. No limits for campus space, offer opportunities to students regardless of schedules and geography (Thomas J. Tobin, B. Jean Mandernach & Ann H. Taylor, 2015). Dianne Conrad (2004) explored first time online teachers' perceptions about their experience and found that instructors' reflections on their performance centered largely on their roles as deliverers of content. Further, they revealed very little awareness of issues of collaborative learning, of learners' social presence, or of the role of community in online learning environments.

Online instructional roles are categorized into 4 general areas: pedagogical, social, managerial, & technical. So, to help develop and teach online courses requires that instructional guides, professional development opportunities, and instructional materials are carefully designed to address all components of the learning & teaching processes including pedagogy, course management, technology and the social dynamics (McQuiggan, Carol A. 2007).

Teaching characteristics within a method are knowledge mode, discussion prompt, discussion type, interaction time, syllabus interaction frequency, group formation, control, topic presentation, mediation reason, intervention type, summary development, conclusion, assessment goal and feedback (Mansureh Kebritchi, 2014).

In sum, online teaching is dependent on the abilities of the teacher to engage learner throughout the session in interactive mode and achieve the learning outcomes.

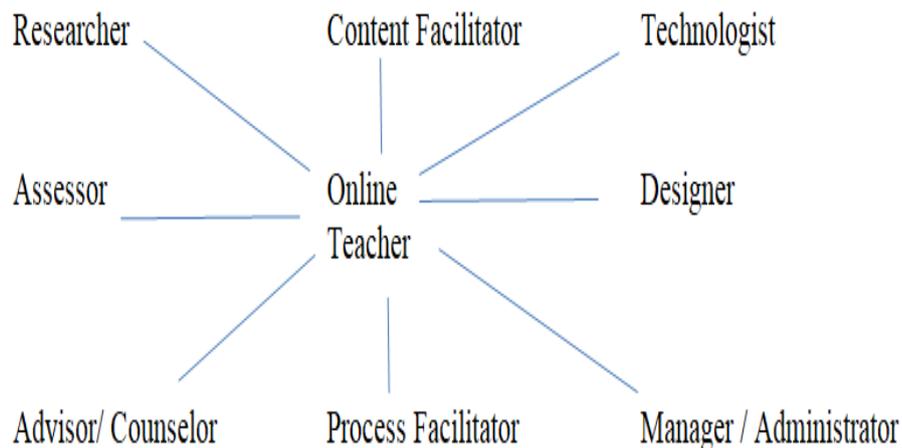


Figure 1: Roles Involved in Online Teaching (Peter Goodyear, Et. Al, 2001).

OBJECTIVES

The Purpose of the Study is:

- To understand the concept of online teaching.
- To identify a tool to assess the teachers' abilities for the conduct of online teaching.
- To assess one of the authors' competence who has taught a concept for a week through online teaching.

Rationale

Globalization (now- Pandemic COVID–19 lockdown) has created an environment in which learners prefer flexible, online learning environments that allow them to engage in their educational goals anywhere, anytime (Dabbagh, N. 2007).

A major role for instructors is helping learners overcome constraints and persist in achieving their learning goals. THE Journal (2004) reports that “Experts agree that faculty need training to teach online 60 % of faculty at two-year undergraduate mathematics courses said that they would have benefitted from more training in facilitating online interaction before they began teaching online” (Tina Stavredes, 2011).

Same is the case with authors and we learnt the strategies of online teaching by conducting classes over Google Meet, Zoom, Facebook and sharing videos, audio lectures and PowerPoint while in class and interacting with the learners and faculty over mobile.

In addition, as the consumers of our courses, students are a logical source for feedback on course quality. Feedback on teacher abilities only are considered as the scope of the study is limited to teaching only and assessment is not taken up by the authors.

Student feedback is essential for improving the academic quality of online learning (Cheung D, 1998) and students’ ranked feedback is the highest factor in determining course quality (McCollum, A., Calder, J., Ashby, A., Thorpe, M., & Morgan, A., 1995).

Hence, a study is taken up to assess the teacher’s abilities for the conduct of online teaching, though the teacher is not trained for teaching at a distance or online.

REVIEW OF RELATED STUDIES

The studies conducted in the field of online teaching which has a bearing on the teaching strategies, practices and evaluation of the course and online instructor by the students are presented here.

Teaching online requires a faculty member to think differently about teaching and learning, learn a host of new technological skills, and engage in ongoing faculty development for design and development of quality online education (Fish, Wade W & Wickersham, Leah E., 2009).

Programs that prepare faculty to teach online may need to encourage teachers to reflect on their past experiences, assumptions, and beliefs toward learning and teaching and transform their perspectives by engaging in pedagogical inquiry and problem solving (Baran, Evrim; Correia, Ana-Paula; Thompson, Ann, 2013).

Charlene A Dykman and Charles Kathleen Davis(2008) examined issues such as online course organization & planning, teaching guidelines and constraints, relationships between students and teacher, lectures versus tutorials and assessment of student performance. Professors must be prepared to communicate differently and to assert control appropriately in an online medium. They also need to learn to cultivate and sustain relationships with their students online, which can be a time consuming, even tedious process, but which is also a critical part of online teaching effectiveness. Constraints such as re-usability look and feel, facilitator role, faculty role and uneasy professorate need to be considered. Online guidelines include basic principles, communication and consistency. Online student teacher relationships are interpersonal environment, mentoring learners; inter relationships among learners, student visibility and one-to-one coaching. Tutorials versus lectures comprise unit assignments & individual tutorials. Assessment of student performance includes lack of control, questions of authorship and sense of comfort. Credentialing vs. educating include professional preparation and certifications. Course evaluation & quality include the moving targets & realistic perspective.

Steven W. Schmidt, Elizabeth M. Hodge, and Christina M. Tschida (2013) reported that a “do what you think is best”-type philosophy about support given to new online instructors, further resulted in instructors learning through a trial-and-error approach while they were teaching. Results of this study show that small group learning opportunities and the use of mentors were both helpful in learning to teach online.

Themes in faculty development in online teaching are moving from classroom practice to online teaching, changes related to online teaching, framing faculty development within adult education, and faculty development models. This study reviewed the existing studies on online teaching and faculty development and provides implications of faculty development for teachers as transformative learning (McQuiggan, Carol A. 2007). Thus, professional development can be a key to success for faculty members who teach online. Many faculty members who have little or no online experiences are often asked to teach online and are faced with the challenge of converting their traditional courses to online formats (Cicco G, 2013).

Online educators need training for the practical and theoretical transfer of pedagogical principles & practices to online environments. Understanding how to teach online involves a deepening knowledge of how students respond to and learn in online settings. Online training necessitates investigation, individualization, immersion, association and reflection into the online training processes and experiences (Beth L. Hewett & Christa Ehmman Powers, 2007).

Brinkley, Karen Elizabeth (2016) examined the relationship between the approach to training for online faculty and the ways in which the program influenced the participants’ teaching effectiveness and attitudes towards online instruction. Theoretical framework guiding the study was TPACK model developed by Mishra & Koehler (2005). Findings are multiple data sources that aid understanding, collaborative learning is advantageous, participants were already effective teachers, certain changes may be incremental, ongoing support for instructors is critical, full integration of pedagogy and technology is difficult.

Janice M. Hinson & Kimberely N. Laprairie (2005) Found That;

- Instructional change can be initiated through sustained professional development,
- Change is more meaningful and effective when it occurs in context over a sustained period,
- Faculty can embrace innovations when supported by knowledgeable professionals & their peers, and
- Students welcome the use of web-based components in course work.

The design of an online training seminar in best practices for facilitating online courses based on the Constructivist Instructional Design model of Morrison, Ross, Kalman and Kemp was discussed by McMurtry, Kim (2013).

Sue Bennett & Lori Lockyer (2006) analyzed the changed environment for teachers and learners in a postgraduate coursework program based on constructivist principles that has moved from predominantly on-campus delivery to online mode.

Guidelines for understanding the online environment and the use of online teaching strategies were provided by Conceicao, Simone C. O. (2007).

Nicky Hockly and Lindsay Clandfield (2010) reported how to establish and manage a good group dynamic between the course participants; and seventy different activities that can be used or adopted for online courses. These are the LSRW online skills, language, feedback, and assessment.

Thomas J. Tobin, B. Jean Mandernach & Ann H. Taylor (2015) Suggests Four Phases of the Evaluation Process for Online Teaching

- Developing evaluation skill sets.
- Creating and applying evaluation methods for administrative, peer, student and self-reviews.
- Preparing faculty members for the evaluation process.
- Sustaining the online-teaching-evaluation life cycle.

Students' Evaluation of Educational Quality (SEEQ) developed by Herbert Marsh (1982) comprised nine dimensions such as learning value; instructor enthusiasm; organization and clarity; group interaction; individual rapport; breadth of coverage; examinations and grading; assignments and readings; workload and difficulty. Whereas Student Assessment of their Learning Gains (SALG) designed by Elaine Seymour (1997) proposed five overarching questions, namely, aspects of courses help in learning; gains in understanding of concepts; gains made in skills; gains made in attitudinal issues; gains made in integrating information.

Student Rating of Teaching Effectiveness (SRTE) developed for face-to-face Penn state university (1985) evaluated teachers on six areas. They are organization; structure or quality of the course or course material; teacher student interaction; teaching skills; instructional environment; specific instructional settings. The online version of SRTE was released in 2005.

Bangert, Arthur W. (2006) found four interpretable factors for Student Evaluation of Online Teaching Effectiveness (SEOTE), namely, student - faculty interaction, active learning, time on task, & cooperation among students.

Peter Taylor and Dorit Maor (2000) of Curtin University of Technology, Australia developed the Constructivist On-Line Learning Environment Survey (COLLES), an electronic questionnaire that enables to monitor readily each student preferred online learning environment and compare it with his / her actual experiences. COLLES was designed to measure students' (and tutors') perceptions of professional relevance, reflective thinking, interactivity, cognitive demand, affective support and interpretation of meaning. The findings of the study are:

- Students prefer to be engaged often in thinking critically about their own ideas, and about how they are learning. Students expect their tutors almost always to encourage, praise and value their online participation and to be empathetic and responsive to them.
- Students expect their online learning almost always to be interesting and directly related to their professional practice; and they perceive that this occurs very often.
- Although students seem to value a role for the tutor in challenging their assumptions, stimulating their thinking and modeling good discourse and reflective thinking, they don't want this to occur all the time.
- Less often the students valued highly the opportunity to interact with fellow students.

Espasa, A., Meneses, J. (2010) found that within the constructivist framework of online distance education, the feedback process is considered a key element in teachers' role because it can promote the regulation of learning. The study concluded that the presence of feedback is associated with improved levels of performance and higher levels of satisfaction with the general running of the course.

Rosenbloom, S. (2014) studied the psychological impact of open-ended feedback in end of semester ratings and found that an unconscious bias exists to weigh open-ended responses greater than other types of feedback.

The review of the studies on online teaching indicated that very few studies are available in the area of student feedback on assessing the abilities of the online teacher. The studies of Peter Taylor and Dorit Maor and Thomas J. Tobin et.al, are very extensive while researches of Espasa A and Rosenbloom S dealt with framework and psychological impact of feedback on online teaching.

METHODS

Survey method is adopted for collecting the feedback on teacher's ability for the conduct of online teaching. Authors have followed the purposive sampling technique and all the students of B.Ed. second semester (2019–2021 batches) pursuing in the University College of Education, Osmania University were considered for the study.

Participants

The participants are 54 students of B.Ed. second semester pursuing in the University College of Education, Osmania University have attended a weeklong session on the Concepts of Socialization and Culture.

Tool

The review of literature yielded many tools, but authors preferred to adopt the iNCOL for the simple reason that it suits the present participants for giving feedback on teacher's abilities in the conduct of online teaching, demonstrates national standards and is objective in nature.

The tool used for the study is adopted from the version 2 of the iNCOL standards (National Standards for Quality Online Teaching, v2). The adopted tool (given in Table 1) possesses six standards from the iNCOL, namely, knowledge of primary concepts & structures of effective online instruction; use of existing & emerging technologies that effectively support learning; plan, design & incorporate strategies to encourage active learning, application, interaction, and collaboration in online environment; promote student success through clear expectations; encouraging legal, ethical & safe behavior in technology use; and arrange media & content to help transfer of knowledge effectively.

Tool Used for Collecting Feedback from Students is given below

Instructions: Dear Student, Good morning. As an enthusiastic teacher, I would like to know your feedback on my online teaching of the concepts- Socialization, Social agencies of Education and Culture. Your honest response helps me grow professionally. I request you to respond to the following 20 items on teacher abilities for the conduct of online teaching.

Rating Scale

- **0:** Absent—component is missing
- **1:** Unsatisfactory—needs significant improvement
- **2:** Somewhat satisfactory—needs targeted improvements
- **3:** Satisfactory—discretionary improvement needed
- **4:** Very satisfactory—no improvement needed

Table 1: iNCOL Standards to Assess the Teacher Abilities for the Conduct of Online Teaching

S. No	iNCOL Standard	Teacher abilities
1	Online teacher knows the primary concepts & structures of effective online instruction and is able to create learning experiences to enable student success.	The online teacher is able to apply the current best practices and strategies in online teaching to create rich and meaningful experiences for students.
2		The online teacher is able to provide evidence of credentials in the field of study to be taught.
3	Online teacher understands and is able to use arrange of technology–existing and emerging that effectively support learning &engagement in online environment.	The online teacher is able to select and use a variety of online tools for communication, productivity, collaboration, analysis, presentation, research, and online content delivery as appropriate to the content area and student needs.
4		The online teacher is able to effectively use and incorporate subject-specific and developmental appropriate technologies, tools, and resources.
5		The online teacher is able to use communication technologies in a variety of mediums and contexts for teaching and learning.
6		The online teacher is able to apply troubleshooting skills (e.g., change passwords; download plug-ins, etc.).
7	Online teacher plans, designs and incorporates strategies to encourage active learning, application, interaction, participation and collaboration in the online environment.	The online teacher is able to use student-centered instructional strategies that are connected to real-world applications to engage students in learning (e.g., peer-based learning, collaborative learning, case studies, and small group work).
8		The online teacher is able to apply effective facilitation skills by creating a relationship of trust that promotes the development of a sense of community among the participants.
9		The online teacher is able to respond appropriately to the diverse backgrounds and learning needs of the students.
10		The online teacher is able to use differentiated strategies in conveying ideas and information and is able to assist students in assimilating information to gain understanding and knowledge.
11		The online teacher is able to apply strategies for engagement in online learning environments, e.g., asking questions to stimulate discussion.
12	Online teacher promotes student’s success through clear expectations, prompt responses and regular feedback.	The online teacher is able to use effective communication skills with students.
13		The online teacher is able to provide prompt feedback, communicate high expectations, and respect diverse talents and learning styles.
14		The online teacher is able to provide clear definitions of objectives, concepts, and learning outcomes and the course organization to students.
15		The online teacher is able to establish and provide clear expectations of class interaction for both teacher and students.
16		The online teacher is able to establish and implement criteria for appropriate online behavior for both teacher and students.
17		The online teacher is able to use a variety of methods and tools to reach and engage students who are

		struggling.
18		The online teacher is able to orient students to teacher's instructional methods and goals and invite students to provide feedback on their perceptions of how they are learning in a course.
19	Online teacher models, guides and encourages legal, ethical & safe behavior related to technology use.	The online teacher is able to identify the risks and intervene in incidents of academic dishonesty for students.
20	Online teacher arranges media & content to help students & teachers transfer knowledge most effectively in the online environment.	The online teacher is able to arrange media and content to help transfer knowledge most effectively in the online environment.

Thus, the tool comprises of 20 items falling into six national standards for quality online teaching.

Collection of Data

At the end of the session, Google form with 20 items mentioned in the tool is posted in the participants WhatsApp group with an instruction to respond in 4 days. On the fifth day, the responses received from 43 participants were tabulated and analyzed as discussed below.

DATA ANALYSIS

The responses of the participants are tabulated in table 1.

Comprehensively looking at the percentages of the feedback of online teaching, the teacher has scored above 60% i.e. very satisfactory on twelve online teaching abilities out of twenty abilities, which can be further interpreted as the majority of the group has found the online abilities of the teacher to be very satisfactory. These abilities are: create rich and meaningful experiences, online tools for communication, contexts for teaching and learning, respond appropriately, use differentiated strategies, questions to stimulate discussion, effective communication skills, course organization, class interaction, appropriate online behavior, orient students to teacher's instructional methods and goals, and finally transfer knowledge most effectively.

Out of the remaining eight teacher abilities, on six abilities (credentials, subject specific technologies, student-centered instructional strategies, facilitation skills, prompt feedback, and engage students who are struggling), 50% of the students found the teacher to be very satisfactory. With regard to Teacher abilities, 40% of the students rated very satisfactory are: troubleshooting skills and identify the risks for academic dishonesty.

Thus, analysis reveals that the twelve teacher abilities that are inclusive of all five standards is very satisfactory but requires fine tuning. The six abilities of the teacher which are rated satisfactory needs discretionary improvement. The 5th standard related to teacher's ability is to identify the risks and intervene in incidents of academic dishonesty, needs special attention.

Table 1: Participants' Responses on Six Standards of Online Teaching

S. No. of Item	iNCOL Standard	Feedback on Teacher abilities (percentage)				
		Absent	Unsatisfactory	Somewhat satisfactory	Satisfactory	Very satisfactory
1	Online teacher knows the primary concepts & structures of effective online instruction and is able to create learning experiences to enable student success.	-	-	11.6	23.3	62.8
2		-	-	-	41.9	53.5
3	Online teacher understands and is able to use arrange of technology – existing and emerging that effectively support learning & engagement in online environment.	-	-	7	27.9	60.5
4		-	-	-	39.5	53.5
5		-	-	11.6	23.3	60.5
6		9.3	7	14	25.6	44.2
7	Online teacher plans, designs and incorporates strategies to encourage active learning, application, interaction, participation and collaboration in the online environment.	-	-	7	34.9	53.5
8		-	-	11.6	27.9	55.8
9		-	-	9.3	18.5	65.1
10		-	-	7	27.9	60.5
11		-	-	14	20.9	60.5
12	Online teacher promotes student's success through clear expectations, prompt responses and regular feedback.	-	-	-	16.3	72.1
13		-	-	11.6	32.6	55.8
14		-	-	7	30.2	60.5
15		-	-	9.3	23.3	62.9
16		-	-	9.3	25.6	62.8
17		-	7	14	25.6	53.5
18		-	-	-	30.2	60.5
19	Online teacher models, guides and encourages legal, ethical & safe behaviour related to technology use.	-	7	18.6	32.6	41.9
20	Online teacher arranges media & content to help students & teachers transfer knowledge most effectively in the online environment.	-	-	-	27.9	62.8

Note: Negligible percentage below 7 % is not represented in the table

RESULTS AND DISCUSSIONS

The present study attempted to understand the concept of online teaching, identified a tool to assess the teacher's abilities for the conduct of online teaching, and assessed one of the authors' competences who have taught a concept for a week through online teaching.

The assessment of the online teacher in the present study gives us the knowledge of online teaching skills to be improved on by the teacher and intricate technology skills to be updated frequently. The study also discusses that the concept of online teaching needs continuous designing and redesigning of learning experiences to cater to diversified learners in the virtual classrooms. The skill development for teacher should consider existing academic and professional skills to enhance and support his/her technical skill set in a blended mode. Hence, self-assessment, students' assessment and institutional assessment of teacher will help to find out teacher specific and subject specific requirements of online teaching.

Continuous Professional Development in online education is a strategic priority for every institution now-a-days. Quality online learning programs are high-input operations and require significant investments. Further, online learning is not a single pedagogical model but an aggregation of various models, hence needs professional training. Faculty will be more successful and strive to give positive learning experiences for the students if they are prepared for this new virtual environment both academically and technologically.

In educational settings, creativity is arguably one of the most important things at stake. The surprises and unexpected interactions fuel creativity which may happen online if the teacher has those potential communication abilities to supplement remote learning.

Online learning is not about video lectures and e-books that convert class-notes into PDFs. Creating high quality digitized learning content must be contextualized and enthusiastic human communication makes learning interesting and engaging. Preparing teachers for this takes a rare skill set which needs to be explored with academic and technical organizations. Universities need to collaborate with multi-disciplinary organizations for their digital pivots to be successful.

Presently, we need more widely shared understanding that digital tools are complements, not substitutes, for the intimacy and immediacy of face-to-face learning. Classrooms have typically diverse learner groups and each teaching faculty needs to be massively re-trained and oriented for online teaching-learning mode. While they could be content experts or great classroom teachers, they need to place equal importance to 'learning in digital media'.

Thus, training plays a crucial role in imbibing the digital skills by conventional teachers. Faculty needs to shun off their existing practices of transposing classroom and shift to a more comfortable online medium.

CONCLUSIONS

Online interaction has become the default mode of education now. It is imperative for the institutions, academic leaders, administrators, students and other stakeholders to host strategic interventions at all levels of education. Further, they should be willing and prepared to collaborate with digital learning specialists to train teachers and re-design higher education for online education.

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