

Training Faculty for Better Online Teaching – Need & Issues

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Abstract: Online teaching and learning is a necessity rather than a choice in all forms of education today. Faculty are one of the important element in this online teaching / learning process. There are several issues pertaining to faculty and one important issue is the training of the faculty and their orientation towards online teaching. There are several platforms, services and MOOCs available, which provide training to faculty regarding different aspects related to teaching better online. This paper explores the need for training the faculty to do better online teaching. The author has conducted a 4-hour short course on “online learning – theory and practice” for 23 faculty in his institution. Feedback collected from the faculty through a questionnaire survey support the need for such training by emphasizing the need to understand both theoretical and practical aspects, but expect freedom in selection of the platform to be used, consider student satisfaction and delivery as more important, support online assessment and consider regular student feedback important for online teaching. The findings of this study have some implications for development and implementation of training and support programs to help faculty to teach online.

Keywords: online teaching, pandemic, faculty training, feedback

1. Introduction

Excellent teaching transcends environment (Nilson, 2018). Online teaching is a requirement in the pandemic situation for all forms of education. The pandemic forced schools, colleges and universities to close temporarily. Now things are slowly returning to normal. However, in the Indian context, no decisions have been taken regarding reopening of schools and colleges by the authorities. At this point in time, online teaching is the only option. There are several factors which favor the adoption of online teaching and include accessibility, affordability, flexibility, learning pedagogy and lifelong learning. Online learning involves the use of technology and learning processes and include computer-based learning, web-based learning, virtual class rooms and digital collaborations (Urdan and Weggen, 2008). Efforts are also being made in various Universities all over the world to adopt blended or flipped classroom arrangements, which is a combination of physical class room lectures with online teaching. Online learning can help in making the teaching-learning process more student-centric, innovative and flexible (Dhawan, 2020). Online learning can happen in a synchronous or an asynchronous environment. Synchronous learning environment is structured, as the students attend live lectures and there is real-time interaction between the students and teachers and there are instances of instant feedback being provided. Whereas in an asynchronous environment, there is no proper structure and there is no live interaction between the students and teachers and immediate response and feedback is not possible. This mode does not provide avenue for social interaction as in case of

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synchronous mode (Dhawan, 2020).

Due to the pandemic, online teaching is no longer a choice, it is a necessity. Institutions and individuals are working out strategies to use the available technology in the best possible way to reach the students. The use of either open technologies, which are free and readily available and easy to use are being tried by the teachers or institutions are selecting technology / platform which are commercial in nature, as they need to be purchased. But they have several features, which make them acceptable like user friendly, secure, no issues of data security breach and necessary technical and other support. It is not the question of whether online methods can provide quality education, but how best the institutions and individuals can use and adopt the available technologies on a large scale (Dhawan, 2020).

There are several problems associated with online teaching and learning. The major problems are technical in nature in terms of internet availability, bandwidth issues, device availability, accessibility and problems like login, audio, video etc. Students find online classes unengaging and boring. It is not possible to provide personal attention to students and two-way interactions are not always possible. Students need to effectively balance their personal and professional life. Teachers have their own set of problems, which include additional preparation for classes, work out strategies for providing effective online instructions, learn to use technology / platform for delivery of lectures, interactions, participation in all forms of communication through chat, social media, email, discussion forums etc., perform online assessment, provide feedback etc.

Online learning is going to stay for some more time in the future. In this context, there is a need to orient the faculty, who are the most important component in the online teaching-learning system. Even if situation returns to normal, may be a few of the courses may need to be offered online. According to Clay (1999), some of the barriers identified by faculty for online teaching include increased workload, changed role of the teacher, lack of technical and administrative support, reduced course quality and negative attitudes of other faculty. Barker (2003) feels that training faculty to teach online is a challenge. There are both educational and technological issues. There is a need to understand the educational theory and principles for proper course delivery and development for better quality student understanding. According to Worley &

Tesdell (2009), the involvement of the faculty for preparing and presenting the content online increases by 20 %. Some of the factors identified includes class size, course content, student's involvement, faculty time constraints and faculty's familiarity with technology. Many of the faculty lack the necessary technical and pedagogical skills in delivering the content online. Faculty role change in an online environment, as they need to assume the roles of facilitator, teacher, organizer, assessor, mentor, counselor, problem solver, coach etc., (Liu et al., 2005). There is a need for the faculty to first orient themselves to online teaching, become familiar with digital learning environment, understand pedagogy and technology, before they convert their course format to online. As per Keengewe et al. (2009), the faculty need to engage their students in activities that can maximize learning and learning should be the most important outcome. Zisow (2000) mentions that teachers need to consider technology only as a tool and its use depends on the motivation of the teacher and also desire to learn and use new tools.

In this context, in the changed scenario due to the pandemic, in the author's institution, the transition to online teaching happened in the 'emergency mode' and later faculty started getting adapted to it. Now they use institutional supported platform for online teaching and assessment. Based on the review of the literature, the author felt the need to understand and explore the views of the faculty regarding the need for faculty training regarding the knowledge of theoretical concepts of online learning. Accordingly, the author conducted a 4-hour short course on "online learning – theory and practice" for 27 faculty in his institution. Feedback was collected from the faculty, who participated in the course through a questionnaire survey regarding the need for such training by emphasizing on understanding both theoretical and practical aspects.

2. Need For The Study

The current pandemic has forced academic institutions to adopt online teaching and few institutions have adopted blended learning. The requirement for online teaching is going to stay for some more time. Many academic institutions / faculty are reluctant to change their teaching method and adapt themselves to this new pedagogy. There has been no specific literature, which describes the research conducted regarding assessing the need for online teaching in this pandemic situation or any

natural disaster situation. However, to get necessary perspective, this section reviews a few studies regarding the online teaching-learning situations in institutions/universities.

Dhawan (2020) studied the importance of online learning in this pandemic situation and conducted a strengths-weaknesses-opportunities-challenges (SWOC) analysis of e-learning modes. The author looks lessons learnt in adopting online learning in situations disaster and suggests measures to overcome the barriers. There is a need for teachers to have pedagogical and technical competency, when doing online teaching. Quality and continuous improvement is critical for online teaching success and training can play a major role. Keengwe & Kid (2010) reviewed the literature pertaining to online learning and teaching. They provided a brief historical perspective on online education. The barriers for its implementation, the role of the faculty in such a changed scenario and some implications for the same are presented. The paper stimulates the need to look at strategies required for higher faculty success in online teaching. Keengwe & Georgina (2012) discussed about the need for systematic faculty development programs to help faculty for undergoing a smooth transition from traditional teaching to online. The Digital Course Training Workshop (DCTW) approach was used. The authors feel there is a need to balance between technology and pedagogy to facilitate smooth transition. The training provided the necessary confidence to the faculty to design online courses. There is a need to understand that effective technology integration requires the need to consider existing social environments. Barker (2003) describe the process of creating a faculty development program for online teaching. There are several concerns of faculty regarding online courses and mainly related to quality and student learning. The training provided should help in developing courses which are based on sound educational theory and principles. Hook & Pitkethly () discussed about the need for proper design, while developing online courses for the arts faculty. According to them the factors that need to be considered include – learning design, encouraging student interaction, building personal and group rapport, fostering student motivation, integrating assessment tasks and feedback and finally optimizing the online experience. Kinney (2015) in the doctoral thesis suggest the need for research in understanding the gap in implementing online program and courses in engineering education. A mixed methods approach was used to identify factors, which the faculty felt are

important for implementation of online courses. The gaps are mainly due to difference in perceptions and the reality with regard to offering online engineering courses. The three major factors identified that influence the offering are online teaching experience, course development issues and implementation of technical aspects particularly to engineering courses in online mode. Brinkley (2016) in her PhD thesis studied the relationship of a particular approach for training faculty for online teaching and how it influenced the teaching effectiveness and attitude of the faculty towards online teaching. The theoretical framework guiding the study was the Technological Pedagogical Content Knowledge (TPCK) model developed by Mishra and Koehler (2005). The study established the need for more research regarding how best technology and pedagogy can be integrated and how this integration is related to the design and execution of faculty development program that have significant impact on online teaching effectiveness. Lackey (2011) discussed about the preparations required for faculty to teach online. The types of preparation activities required and the faculty perception regarding the effectiveness of these activities and discussions on these activities were found to be beneficial. Both experienced and non-experienced faculty were involved. From the study the important strategy identified was technical and pedagogical training. The study emphasizes the need for formal and informal training programs which should emphasize both these aspects for effective online instructions. Schmidt, Tschida & Hodge (2016) studied the best practices required for the professional development of instructors to teach online. The authors feel that there is a need for informal and requirement based training programs, in addition to networking among the teachers and self-directed learning. The administrators need to understand the specific ways in which teachers learn to teach online, so that they can take proper decisions for devising and providing necessary training programs to those teachers. Blankson (2009) used mixed method design to find out the resources available to teachers as they teach or prepare to teach online in a mid western university in USA. The study looked at the peer interactions among teachers who taught or were planning to teach online. The faculty felt that peer support, collaboration and interactions are essential for creating a successful teaching experience online.

3. Method

An email from the Head of the Institution,

publicizing about this 4-hour short course on “online learning – theory and practice” along with an introductory video providing details about the content of the workshop was sent to all the faculty of the institution. A total of 41 faculty members registered for the course. The reasons for registering for the short course was collated through a Google form used for registration. Most of the participants felt the need to know more about online learning and teaching, its need in the pandemic situation, its merits and demerits, different tools and techniques used, different forms like blended learning etc. The form also wanted the participant's expectation from the short course and it included – to gain knowledge about online learning theory and practice, best practices, relevance of theory to practice, how to make online classes more interesting, virtual hands on session, discussion on scientific findings of online learning and practices and modern tools for online learning and teaching.

The course was offered on three consecutive days from 3 to 4.30 PM (IST) in virtual mode using a suitable platform. The mode of presentation by the author was using power point. After each session, an assignment was given to the participants concerning the topics covered in that session and they were supposed to submit in the next day before the start of the session. Feedback orally was obtained after each session to know the comfort level of the participants and how to go about the next session. After the last session of the short course, all the participants, who attended all the sessions (27 in number) were asked to fill a questionnaire survey regarding the need for training in online teaching. The questionnaire had a total of 15 questions, of which the first five questions were close ended and included name, department, designation, gender and number of years of teaching experience. The close ended questions were concerning responses to previous online teaching experience, need for formal training, need for understanding the theoretical and practical concepts, freedom in selection of technology, online assessment and student feedback. 23 out of 27 participants responded and gave their feedback.

4. Result And Discussions

Out of the 23 participants – 11 were male and 12 female. The department distribution of the participants is as follows-

The designation of the faculty followed a

distribution as shown in fig. 1

Most of the faculty are at the assistant professor level. Senior faculty with an experience of 36 years and junior faculty with an experience of 2 years, with

biotechnology	1
mechanical	4
electrical	1
computer science	6
information science	7
chemistry	1

an average experience of 13.5 years have participated in this short course. This represents a spectrum of

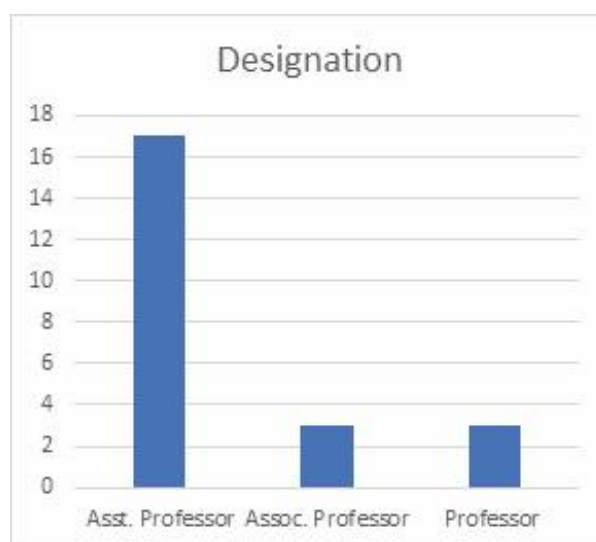


Fig.1 : Faculty distribution (Designation wise)

experience, with faculty irrespective of number of years of teaching experience showing interest in online learning and teaching.

The majority of the participants showed interest towards online learning and teaching. The results regarding the individual questions pertaining to different aspects of online teaching are as follows:

The faculty were asked about whether they have done online lectures earlier and 10 said yes and 13 said no. When asked about the need for formal training in online teaching / learning, 19 felt the need for training and 4 felt that it was not necessary.

With regard to identifying the factors that were important for online teaching, fig. 2 shows the factors and the results. It is clear that 17 faculty felt the need to know both the theoretical and practical aspects, 5 felt the need to know only the practical / implementation aspects and 1 felt the need for only theoretical aspects. When the faculty were asked as to whether understanding the theoretical and practical aspects of online class help in better use of educational technology to teach effectively, 20 faculty felt the need and remaining 3 said no. Some of the reasons given by the faculty for the need include – enhance knowledge of online teaching, improves quality, effectiveness in delivery of contents, better understanding of target audience behavior etc.

These days a wide variety of platforms are available for engaging online classes / assessment. In the author's institution, it started with ZOOM, then Google Meet and other platforms like SKYPE, YouTube etc. and now a commercial platform for only engaging online classes, which is linked to Moodle, the LMS of the institution. When the faculty were asked as to whether there should be freedom in the selection and use of educational platforms for engaging online classes, 21 faculty said yes and only 2 said no. Some of the reason given include – gives flexibility and authority, helps in choosing features in a platform, which can be effectively used for online teaching, provides alternatives in case of emergencies, each teacher has his / her own teaching style and will be comfortable in some of the platforms, familiarity, based on the course taught etc.

Based on the literature review, four factors were identified as important, while engaging online classes, namely content, delivery, technology and student satisfaction. The results obtained is as shown in fig. 3.

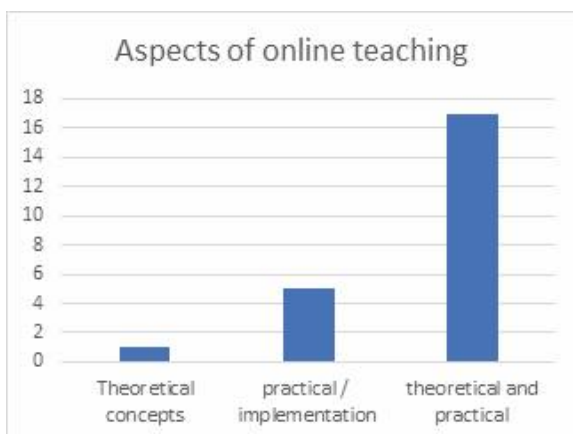


Fig. 2 : Aspects of online teaching

From the figure it is clear that faculty give significant importance to student satisfaction (11), followed by delivery (9), content and technology were found to be not very important.

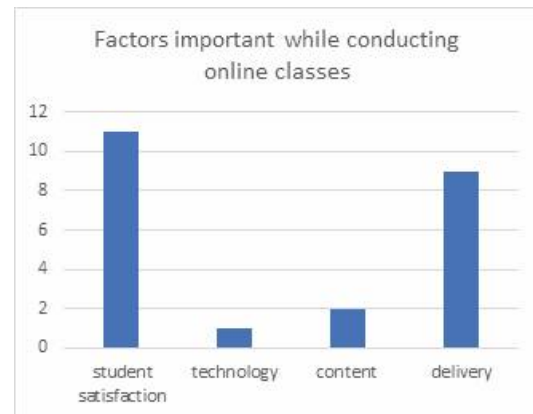


Fig. 3 : Factors important while conducting online classes.

When the faculty were asked their opinion regarding whether online assessment can be done effectively, 14 said yes and 9 said no. Many faculty had apprehensions regarding technical issues, possibility of cheating, assessment may not be effective, lesser possibilities of monitoring the student and need to use proper mechanism to strictly monitor the conduction of the online assessment. Further, when they were asked, which mode of assessment they would prefer to use from among MCQ, assignment, open book assignment and project work, the results are obtained are as shown in fig. 4. 11 faculty preferred to use MCQ, 5 preferred to use open book assignment, 4 preferred using project work and 3 preferred to use assignment.

Finally, when the faculty were asked about the need for regular student during online teaching, 22 felt it is necessary and only one faculty felt it as not necessary.

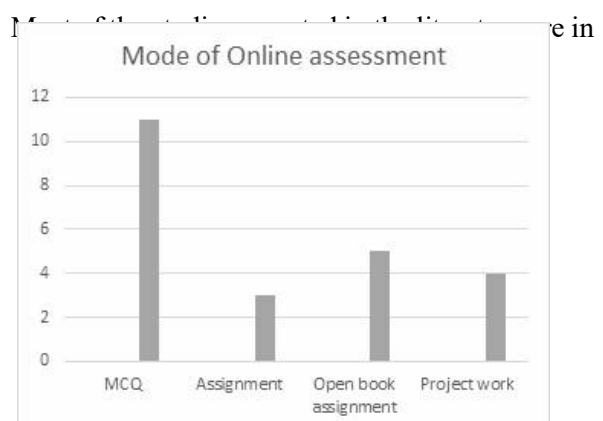


Fig.4 : Mode of Online assessment

the context of the need for training faculty to develop course content for online classes. For eg., Julie Ray (2009) conducted a study regarding perceptions of faculty teaching online in 2008. Out of 300 instructors, 111 responded and they had taught at least one online course. Faculty felt difficult in transition from face-to-face teaching to online mode, most of the faculty felt the need for training in both technology and pedagogy, large percentage of faculty were not trained to teach online either in technology or pedagogy and there was a lack of policy in institutions regarding the same, about 86.5 % felt that faculty new to online teaching need to participate in technical training before teaching and 84.5 % believed that faculty new to teaching online need to participate in training. It was reported that irrespective of the format in which training is provided, training received prior to online teaching both in technology and pedagogy had a positive effect. In 2016, Glenn Klesser, prepared a report on developing a framework for virtual class room training. The survey was administered through Online Learning Consortium (OLC). There were 733 respondents, out of which 241 respondents received training regarding the use of virtual classroom technology, which was around 66 %, 27 % received a month or more of training, 34 % received less than one day of training and on an average 55 % of the teachers received training before handling online classes for the first time. It was a comprehensive study covering aspects like perceived effectiveness of training, amount of training, training provider, institutional policy and use of synchronous and asynchronous components

In the context of the results obtained from this study, which is concerning the emergency transition to online teaching and the need for a formal training program, the results obtained are very similar to that obtained in the studies conducted regarding transition to online mode from face to face mode. Faculty wanted to learn the theoretical and practical aspects of online teaching, wanted freedom in the selection of platform for engaging online classes, gave more importance to student satisfaction and delivery of content had apprehensions regarding online assessment and were ready to adopt different modes of assessment. The need for a formal training is clearly evident in the study conducted for successful online teaching experience among the faculty. Further as highlighted in the report developed by Glenn Klesser (2016), there is a need to adopt the following critical points for effective training for online teaching and

include:

- Need to understand the online learning experience from the standpoint of student,

- Collaborate with peers and instructional designers during training,

- Learn from successes and failures, by reviewing the performance during training,

- Develop skills through an experienced mentor and

- The important focus should be on adapting content and pedagogy to an online context rather than focusing only on technology.

5. Conclusions

The need for online learning and teaching cannot be overemphasized in today's context due to the pandemic. There are bodies of literature available, where studies have been carried out to understand the need for training faculty for transition from physical class room to virtual classroom. In the Indian context, such studies are rarely found in the literature as in a formal teaching-learning environment adopted in institutions and Universities, there were no online courses taught earlier. Also in the changed scenario such formal studies have not been reported. In this regard, this study assumes significance. The study establishes that training faculty in different aspects of online teaching /learning is essential. Institutions / Universities need to take steps to organize such training programs either inhouse through available expertise or through external professionals to the faculty of their institutions. This will help faculty to understand all issues related to pedagogy and technology, while offering online courses. If there are no initiatives taken till date, it is time that it is taken as online teaching is going to stay for some more time and there will be issues both for the faculty and students. Govt. bodies, Universities, funding agencies etc. need to take note of this major issue and formalize plans and mechanisms to help in this effort to make both students and faculty more comfortable.

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