Impact of COVID-19 on changing role of teachers

A. Kovalan

Abstract

In Covid-19 pandemic situation, online teaching and learning is a rapidly growing area in education. The traditional form of Teacher Education is being transformed, as the Internet becomes the new medium for communication. Traditionally teachers have fulfilled the dual roles of presenters of structured information and of social agents in the educational process. Many students require interaction with a teacher as part of the learning process, and so Online Teaching Process (OTP) delivery needs provide this interaction. School, Colleges and Universities today realize that they have to train their employee or faculty, with different methods, to stay competitive. Online resources are playing a vital role in every field of life today. The role of a teacher is pivotal in teaching by incorporating e-technology such as Audio, Video, Internet and Intranet. The effectiveness of a teacher is amplified in the online classroom. There are many in online, which change the role of the teaching process. This paper describes how technological resources change the role of teachers in the teaching-learning process.

Key words: COVID-19, E-learning, online teaching process, role of teachers

INTRODUCTION

Today education environment with tremendous change of online tools and use of many online resources into any formal educational settings such as a classroom or timetable course immediately changes the role of teachers. In the early sixties, teachers started to use non-traditional media such as radio and television programs, which were intended to aid them in teaching. E-Learning has becoming a growing trend in the educational system. Electronic leaning brings education to the living room where everyone in the family can participate, rather than keeping students and their peer groups in the classroom. Therefore the role of the teachers in online environment can be different from the traditional teachers. Teaching and learning using the web is becoming a challenging role and task for both teachers and the learners. Online Learning methods and media help learners to interact with their teachers, peer groups and experts. Hence, the challenge of teaching roles is to find good pedagogical practices that will build on the inherently engaging nature of the web and to produce engagement that will lead to good learning. Further teaching via the web could be seen as time-consuming and requiring more effort from the teachers rather than the traditional methods. Online teachers should be aware of technical aspects while learners are having problems. This paper highlights the different roles of teachers within the online learning environment in relation to the different content development structures, the control over the learning process, and evaluation of learners' achievements.

Teachers' Role in Content Development Structure(Fig. 1)

The structure of the Internet Curriculum has been based on constructivist assumption, structures and stages of knowledge acquisition as outlined by Jonassen (1993,1997), Honebein *et al.* (1993) and Hannafin and Oliver (1999). Moreover, it is built to enable cognitive flexibility, which results from learning knowledge in a variety of contexts (Dick, 1991 and Spiro *et al.*, 1991). The structures of the curriculum have to be developed in a systematic way that starts with simple objectives and gradually developed to more complex and advanced objectives (El-Gamal and Hudson, 2001). The roles of the teachers in online curriculum design have been categorized as follows:-

Curriculum Project Manager (CPM): The person with overall responsibility has to ensure that all learning material and media products are in place and of highest quality, delivered on time and within the budget. CPM liaises with the client to agree on scope,

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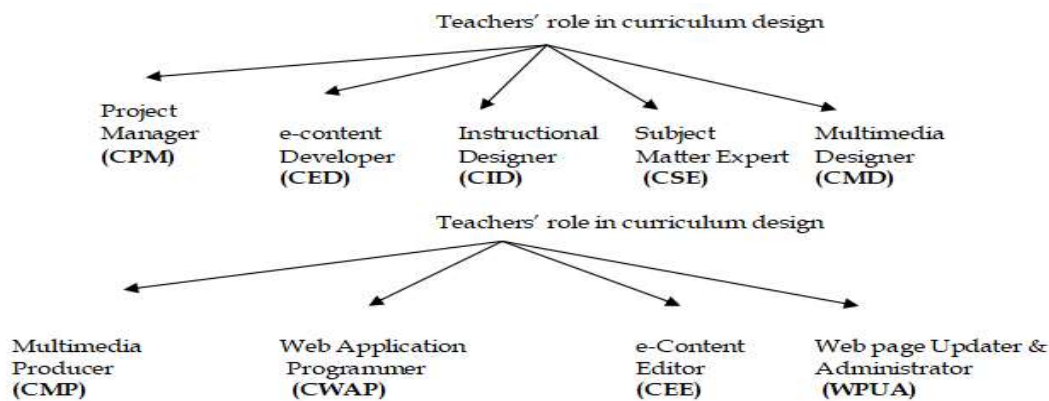
Fig. 1. Teachers' Role in Curriculum Design

budget and timeline. CPM ensures that learners' objectives are met and manage the problems of content, quality and time scheduling. Formally the CPM should analyses the requirement and interest of the learners towards their academic goal. The CPM needs to note the learners' feedback on learning materials for further improvement of the e-learning process.

Curriculum e-Content Developer (CED): The e-content developer liaises with the CPM, CSE and CMD on regular basis. CED produces outline plans, which are connecting with other team members and learners to provide all content in an appropriate format and produce appropriate flowcharts, graphs, tables and storyboards with the help of CID and CWAP. He also analyses the complex content area to transfer into simple format, uses simple language to understand the concept easily by learners and avoids incorrect, irregular and incredible concepts.

Curriculum Instructional Designer (CID): CID liaises with CPM, CED, and CSE on regular basis. Identify and analyse individual learning point and suggests feasible action and solutions to meet product goals. CID should analyse, design, develop, implement, evaluate and validate of the learning event. He also identifies the various components needed to develop a GUI (Graphics User Interface) based learning products that meets learners' goals besides finding out the components needed to develop a home page that impresses the learners.

Curriculum Subject matter Expert (CSE): CSE is liaising with CED, CID and CMD during designing and development of learning materials and communicates on regular basis and checks all materials' quality, quantity, and accuracy. Formally CSE should discuss with CPM, CED, CID and CMD for providing quality-learning materials on the web, besides providing regular feedback of the learners and other CSE to the CED, CID and CMD for improving total quality of the online learning materials.

Curriculum Multimedia Designer (CMD): CMD is liaising with CPM, CSE, CID and CMP and suggests animation, graphics, and multimedia-based solutions to the CID, CED and CSE to meet learners' needs and interests towards his academic goals. He also provides an appropriate and comprehensive set of charts, graphics, illustrations, pictures, and other multimedia components that reflect and depict the content and the learning events besides designing GUI based learning materials to motivate the learners to achieve their academic goals without any pain and strain.

Curriculum Media Producer (CMP): The CMP is liaising with CID, CED, CMD, CSE and CPM on regular basis. CMP suggests the quality of audio, video, animation, and pictures to the CID, CMD, CSE and CED to meet learners' needs. CMP provides set of audio, video, and animation based on the learning resources that accurately reflect and depict the content of the learning event.

Curriculum Web Application Programmer (CWAP): He is responsible for making sure all the facts of a online learning event work to the satisfaction of the learners, all the team members, the event facilitator, the evaluation and the organization. The CWAP liaises with CID, CED, and CSE during designing and developing learning materials. He also provides appropriate hardware and software solutions to ensure the learning event meets all identified objectives besides setting up the various faces of the learning materials and its events to ensure that all identified objectives of the product meets the learners' requirements.

Curriculum E-content Editor (CEE): He is responsible for ensuring the learning materials are grammatically correct, consistently formatted and generally conform to the standards and specifications set for the product. CEE liaises with CID, CSE, and CED to provide quality materials with free of errors and check all faces of the learning materials to review and revise the errors, consistency and conflict of the learning objectives.

Web Page Updater and Administrator (WPUA): He is responsible to ensure all the facts of web-based leaning event consistently work to the satisfaction of learners, the event facilitator, the organization and updating new courses with many events. WPUA liaises with CIS, CPM, CED, and CMD during updating new materials on a regular basis besides suggesting feasible actions and solutions with respect to the set-up and administration of the web site to meet the learners' objectives.

Teachers' role in control over the learning process(Fig. 2)

Web based teachers, by necessity, do so much more than present content with media and information to the learners. There are many ways a teacher to control the learners over the web. Controlling methods depends upon the Instructional Objectives. Each person has different academic, social and personal achievement goals. Online teachers have many criteria to control their learners over the web viz.:

Technical Facilitator (TF): Technical facilitator helps learners appropriate access to Computers and Internet.

The facilitator can support their learners to access the materials and media from server and other resources.

Learners' Personal Advisor (LPA): Learners' personal advisor is important to the success of the online teaching process because no matter how effective the learning materials are, still learners need individual advice, support, guidance and assistance to achieve their goals. Typically teacher is the main agent of materials supporter that learners' interface with.

Instructional Supporter (IS): The Instructional Supporter is involved in support of learner's problems in receiving the materials and know the instruction of the organization. The IS helps learners to remove the fear of new material delivery of learning events.

Subject Expert and Entertainer (SEE): SEE liaises with the instructional designer and e-content developer on a regular basis during the design and development process and check all learning materials for quality and accuracy. Formally the
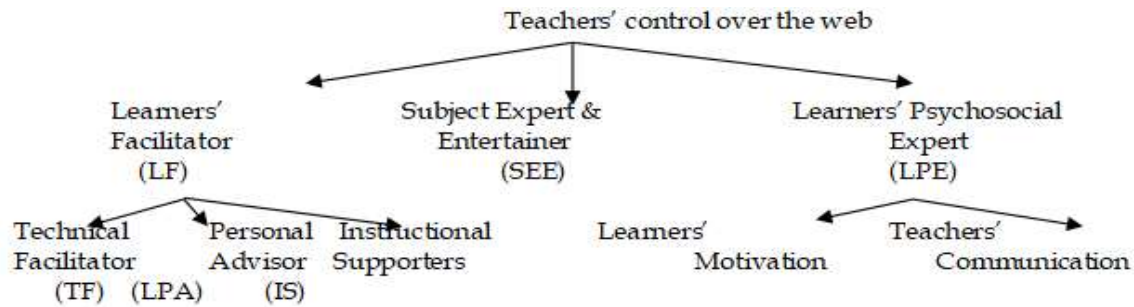

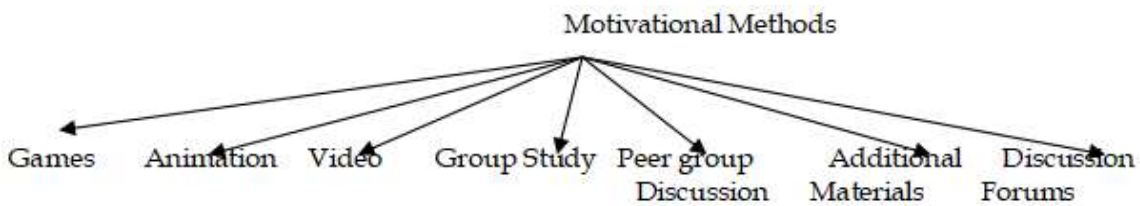**Fig. 2.** Teacher's role in online Teachers' Control

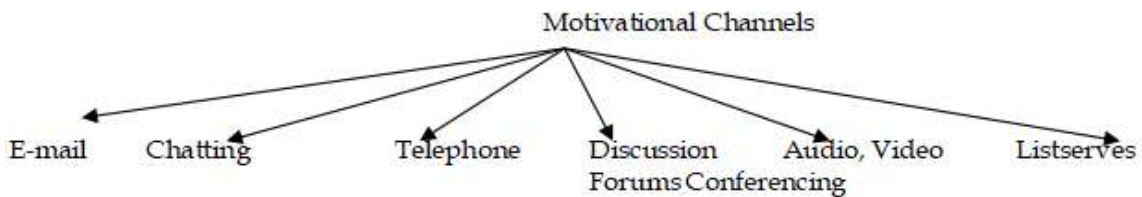**Fig. 3.** Teachers' Motivational Methods

Fig. 4. Motivational Channels of Teacher

instructional designer and e-content developer discuss with SEE for providing quality products in the online teaching-learning process. SEE should provide suitable suggestions for making resources and sources of information. They provide regular feedback to the learners and experts to the content developer and material designer.

Learners' Motivation (LM): LM is typically defined as the forces that account for the arousal, selection, direction, and continuation of behavior. In the online teaching learning process, the learners are motivated to maximize their efforts to achieve their academic goals. There are many methods and channels available to motivate the learners(Fig. 3).

Using these methods and channel a teacher can motivate the learners to achieve their academic objectives.

Teachers' Communication: Teachers' communication with their learner on a regular basis is an important role in online teaching learning process. Lack of communication with learners makes many problems to both learners and online teachers. Many communication channels are available today as e-mail, discussion forums, telephone, video and audio conferencing(fig. 4). We have to encourage the learners to participate in discussion forums, chatting and conferencing.

Teachers' Role in Evaluation of the Learners(Fig. 5)

The evaluation of the learners in online teaching learning process used to gather information about the impact or effectiveness of the online learning event which can also be used to help the teacher to better understand the environment in which the learning takes place. The environment includes the organization, learning materials and use of media,

delivery methodologies and various administrative details. There are many evaluation models that can be used to access the worth of a learning environment. However, the following model stands out in terms of its overall simplicity and ease of administration. Teacher evaluation can be categorized in to four criteria viz.:

E-Learning Materials Evaluator (EME)(Fig. 6)

They have to measure the reaction of the materials to the learners from their chosen learning events. They check the quality of the materials and media. They analyses the content, media, materials, design, and methods for providing quality-learning materials. They measure the quality of different faces of the materials as detailed below:-

E-content Evaluation: We have to ensure that the learning materials include the right amount of information and quality of resources based on the learners needs and interest.

Instruction Designing Evaluation: The teacher evaluates whether the Instructional designing materials provide quality product to the learners. The teacher should evaluate the appropriate quality of the learning events.

Interactivity Evaluation: The learning materials make the learners engaged with their chosen event throughout the learning.

User Friendly Evaluation: The learning materials must guide to access the materials easily using appropriate icons, maps, class labels, and key points.

Media and materials Evaluation: The method should motivate the learners to achieve their academic objectives using games, graphics, animation, testing and unique content. The efficiency of media makes changes the learners' reaction and behaviors. The
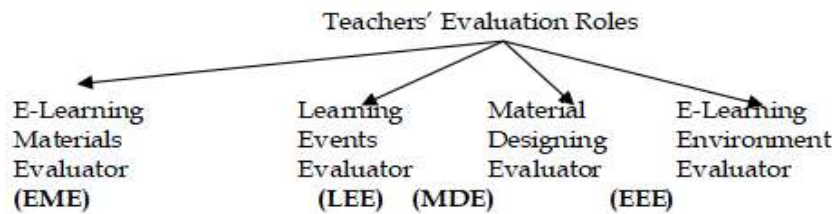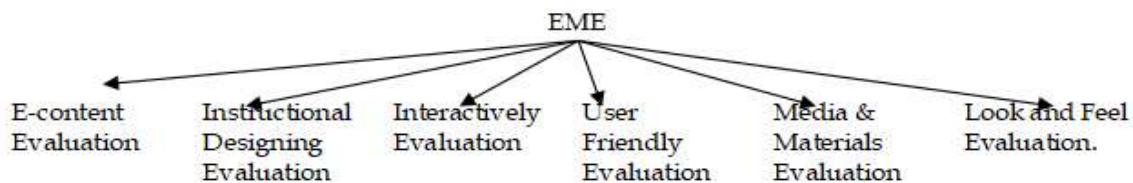
Fig 5. Evaluation Roles of Online Teacher

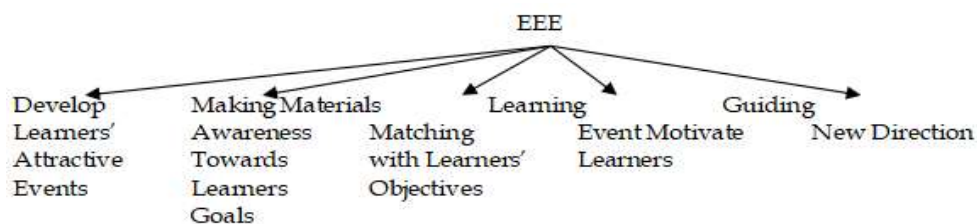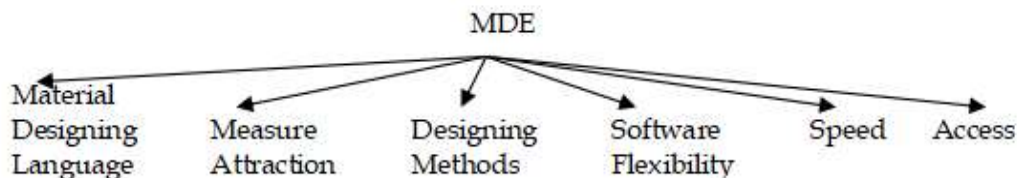**Fig 6.** Materials Evaluator

Fig 7. Event Evaluator
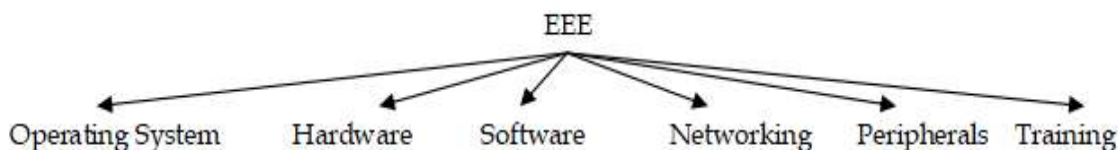
Fig. 8. Material Designing Evaluator

Fig. 9. Environment Evaluator

materials with media effectively employ animation, sounds, pictures, special effects, graphics and appropriate visual effects, and presentation style and effective text and files.

Look and Feel Evaluation: The online materials are attracting and appealing the learners to the eyes and ears for achieving their goal without problems.

Learning Event Evaluator (LEE)(Fig. 7)

Good learning materials provide many opportunities to the learners to choose their interesting learning event for achieved their goal. There are many criteria that help teachers to analyses the learning events' quality and efficiency as follows:-

Develop Learners' Attention: Online learning events must be attractive to achieve the learners' goal. The material makes clear the objectives of the learners. Attractive events play an important role in learners' motivation and interest.

Making Awareness Towards Learners' Goal: The learning methods, materials and event instruct learners where they are going and how they are achieving their goals.

Materials Matching with Learners Objectives: The online learning materials are matching with the learners' objectives. Online facilitator should identify the learners' need and interest to achieve their academic

goals. The teacher analyses how the various methods of the learning event will fit learners' objective.

Learning Event Motivate Learners: Motivation of a learning event creates learners' self-learning, self-interest and self-evaluation. The facilitator provides multimedia tools, techniques and components viz. audio, video, animation and pictures for motivating learners in academic achievement.

Guiding New Direction: The facilitator uses collaborative activities with peer and other groups of the learners to invent or discover the solution to a critical problem. He also motivates learners to discuss in Net-forums, group discussion, and peer group interaction on a regular basis.

Material Designing Evaluator (MDE)(Fig. 8)

Material Designing is not only the design of a event but also it includes learners' attention, motivation, self-interest, self-satisfaction and self-learning. The facilitators identify the irrelevant, irregular and inactive materials and media to avoid in the online teaching-learning process. MDE identifies the problems where the learners get trouble to receive the materials and media. Hence, the material design can be evaluated in the following direction:

E-Learning Environment Evaluation (EEE)(Fig. 9)

The environment is a primary source of the teaching learning process. The learners are grouped together, where teachers and resources are available, in

traditional methods of teaching-learning process. But in e-learning method the teachers and resources are available where learners' are available. Online teachers and learner needs environment *viz.* hardware, software, networking and other peripherals for providing and receiving teaching learning media and materials.

CONCLUSIONS

Teachers realize the changes of their roles in online teaching-learning process during this COVID 19 pandemic situation. All the students are interested in continuing their further education online. Hence, we can conclude that the multiple roles of the teachers are the key elements in the online environment.

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