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AN APPROACH TO DEVELOP CONTENT BASED VIDEO MODULES

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ABSTRACT

21st century demands the incorporation of ICT skills as a crucial component in developing a 21st century learner. For doing so the teacher must be capable to implement and create such an environment to develop such skills among the earners. In order to produce effective teachers with 21st century skills the teacher educators must be competent to develop a 21st century teacher and must themselves be a 21st century teacher educator. Though ICT has been integrated within the curriculum of teacher education in India the practical exposure to effectively use technology in education within and outside a classroom is still yet to pick up pace. This paper illustrates a training module provided for the trainee teachers to develop a video based instruction of experiments in Biology. The module had a positive and an effective impact among trainee teachers.

Keywords: Video Module & Teacher Trainees.

INTRODUCTION:

Introduction: ICT in the 21st century has been emphasised to a great extent and has been realised to be a core of 21st century skills (Partnership for 21st century skills [P21], 2006; North Central Regional Educational Laboratory [NCREL] & Metiri Group, 2003; International Society for Technology in Education [ISTE], 2012). According to Voogt & Roblin (2010) a complete set of new competencies is required with relation to ICT and technological literacy due to the rapid development of ICT. The implementation of ICT has also been incorporated in the teacher education curriculum in order to enable the teachers of 21st century develop 21st generation of learners. With a boom in technology and its various aspects teachers need to know and understand the usage of technology effectively within and outside a classroom. "It is doubtful that any teachers without particular competence would be able to develop the same in their students" was expressed by Gordon et al. (2009).

Through literature we find that one of the most common ways of integrating ICT within a classroom is through incorporating presentations along with video, audio, animations within a classroom which has been followed from quite some time. The concept of video can be dated back to the invention of television. Traditionally television was the only means of acquiring information by watching videos which later evolved to being recorded and stored in CD's but now videos are available at the click of a button with the development of internet and search engines. Saracino (2012) stated that video was taking over the world with more than 4 billion hours of video viewed each month and YouTube was now the second most used search engine, right behind Google. "Video is a medium that engages viewers from multiple senses – sight and sound – and can generate excitement about a subject or concept" The University of North Carolina at Charlotte [UNC Charlotte] (2014). These facts demonstrate that, videos are a vital and enjoyable source of information. Stephen Haskin expressed that Haskin (2014) video was becoming mainstream in training and particularly in eLearning. Videos in education have been used from a very long time by using CD's and a television to the recent times of projecting videos with the help of technology such as computers, phones and projectors.

Garza, in relation to teaching culture states that "video materials provide a unique opportunity to present, teach, and internalize authentic information as these materials can be edited for presentation and are also excellent venues for focusing our students' attention on specific details and for creating exercise materials based on the video itself." Videos engage students who are visual, auditory and with the help of subtitle even the linguistic learners. Videos help students connect with real world applications of a concept or a theory. A video can be either a natural recording of events or can be designed. As stated by Schwartz & Hartman (2006) a designed video is a video in which the author of a video decides on the components and features beforehand such as a scripted video. Using videos to enhance teaching has now transformed to learning with videos. Learning with videos refers to development of videos by the learners themselves. With the development of user friendly technology, easy to use software's, and the ever evolving internet producing videos by oneself has become an easy task. Making short films, short documentaries or even recording ones talk and publishing it has become easy.

EdTechTeacher Inc. (2013) expressed that video projects i.e videos made by students themselves "in addition to being fun and motivating, video projects teach students to plan, organize, write, communicate, collaborate, and analyze. A successful video project has undergone a process of researching, scripting, organizing, filming, editing, and publishing." This video project was developed as a video based instructional material or video based teaching material wherein the teacher trainees of Christ University, School of Education used this concept via a training module in order to prepare their own teaching video of performing different practical experiments. Brecht & Ogilby (2008) stated "Video lectures are CD and web viewable files that present lecture materials and narrative instruction from a course's instructor. They are used as additions to classroom lectures and are not recordings of classroom lectures. In these lectures, the instructor uses Microsoft Office content files, narrative instruction, and screen writing with the keyboard and mouse pointer to deliver the lecture."

IMPORTANCE OF VIDEO CONTENT WITH RESPECT TO STUDENTS AND STUDENT TEACHERS:

Student teachers are the future teachers who will implement the effective training they received in their teacher education programmes. With this aspect in mind student teachers are learners themselves as well as teachers when they start teaching. The importance of making and using of videos within and outside classrooms is to be understood for effective implementation in future. The importances of videos for a teacher and as a student teacher are as follows.

- Engages students with different learning styles, and provides an interactive classroom

- It motivates students to learn by grabbing the attention of the learner, focuses on details and helps understanding and foster deep learning of content.
- Relates to real experiences of students.
- It is an instructional material which students can refer to anytime at their own convenience and enable repeated learning.
- Video project enables students to get a deeper knowledge and understanding of subject. The students learn different skills such as time management, communication, organisational as well as ICT skills such as filming, editing and publishing.
- In addition to being entertaining, fun and creative, the students learn to collaborate effectively during making of the video, enhance their creativity.

Programme description: The programme was to equip trainee teachers for teaching in the 21st century with ICT skills. 22 students with the elective of Biology as their method of teaching were the participants for the given training. The objectives of the programme were

- Development of biology experiments E- module via video
- To provide hand on experience in script writing, presenting, editing an E video module.
- To inculcate creativity within students.
- To apply use of technology in order to develop 21st century ICT skills within teacher trainees.

DEVELOPMENT OF E-VIDEO MODULE:

The video based E module was developed by the trainee teachers of B.Ed in Christ University in the subject Biology. The students were given training by the researcher, Dr. Samson Victor, Assistant professor in the School of Education, Christ University who is referred here as the instructor. He teaches Biology methodology to the trainee teachers. He developed a module for teachers to experience video based E module development for trainee teachers. The students had to follow step wise procedure for developing the module which was all practical experiments in the field of Biology. The students after developing the video module had to upload it in You tube as an video E module. The procedure followed is as explained.

Step 1:

A brief introduction was given to the students on the development of video E module. The students were explained about the procedure of video development with the help of script writing, video capturing techniques, and video editing software. The students then were given time to understand the concept by researching on their own followed by the selection of the topics that they wished to develop as E module. The students were given the freedom to use any software they preferred to capture the video and edit them as well. The students were divided into groups of 2.

Step 2: The students with their respective partners combined and wrote the script for the video module which was given for content analysis to the subject expert for review and editing. The principles of Computer Assisted Instructions were kept in mind while developing the E video module. After the review process the edited script was finalised and presented to the instructor.

Step 3: The approved script was finalised and the students had to capture their experiments using any technology they wished. They students used a video camera to capture their experiments. After the video capture the videos had to be edited using any software they preferred which was later converted to a compatible format for uploading on You Tube as the E video module. The students then presented the video to the instructor for approval of the video.

Step 4: The videos after being reviewed and edited to follow the appropriateness of the module was then uploaded on You Tube as the E video module.

QUALITATIVE ASSESSMENT:

The trainee teachers were asked to provide the feedback of the training module provided. An open ended questionnaire was given to the students relating to the general feel of the module implementation, usefulness and the probable uses of the module by the trainee teachers in future. A positive feedback was attained from the trainee teachers. The trainee teachers have reported the module was effective in giving them knowledge along with an out of the box experience on developing a video based E module. Overall they expressed that they had fun, developed creativity and have acquired few skills such as team management, time management, collaboration, ICT skills such as filming, editing, converting it as an E module along with which they expressed a sense of satisfaction and contentment. In addition, the confidence levels of students were also found to have

increased among the trainee teachers. The students had a positive attitude of using this training in future aspects.

CONCLUSION:

Teachers in the present of 21st century must be creative and equip themselves to teach in the era of technology. Technology has improved to a great deal with smart phones, easy use and user friendly software's, enormous information reception at the click of a button etc. Incorporation of ICT in the curriculum is not enough but the practical implementations must be inculcated within the trainee teachers in order for effective implementation in schools and for equipping teacher with technological skills required for the 21st century teacher and 21st century learner. This module was helpful for the trainee teachers to understand how media can be used in the subject of Biology and as teachers how they can use such techniques to involve students in the interactive process as well as use technology which the coming generations are very in tune with. This module though was just a beginning stage for the trainee teachers they did get the feel of being in front of a camera, script writing, recording, editing, as well as using the content for students. The videos were not professionally done but the trainee teachers now do know what they need to do to enhance their videos and develop better videos in future. For developing an effective teacher, teacher educators need to be effective with following inclusion of creativity, practical use of technology and implementation of innovative practices within the curriculum can achieve these tasks. Therefore, teachers and teacher educators can no longer hold back on self development in aspects that are required for the current generation and generations to come and new innovative techniques is very essential to be developed within an individual for effective teaching and learning process inside and outside a classroom.

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