PERCEIVING THROUGH LENS: AN INNOVATIVE WAY TO ENHANCE TEACHING SKILLS AMONG PRE-SERVICE INTERNS

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Abstract

Micro teaching is a technique used in teacher preparation programme to get training and improving teaching skills among pre-service teachers. They practice the various techniques inside the classrooms and receive feedback from the peer group. Based on the feedback, the trainee can identify the areas to be improved. In addition, integration of technology in teaching field facilitate the instructional techniques, especially early 1980s computer based instruction and computer assisted instruction has significant role in teaching (Chuang, and Rosenbusch, 2005).Notably, recorded videos served as a tool to provide immediate feedback and participate in self-evaluation. Even though there are positive and negative consequences of videos, many research studies provided strong evidence to show the effectiveness of micro teaching technique through videos. The present article describes a new approach similar to the earlier studies with use of video technology in micro teaching, and adopted a different mode of video technology by incorporating Virtual Reality headset with smart phones.
Keywords: Micro Teaching, VR Headset, Recorded Videos, Smart Phones

Introduction

The art of teaching is not simply transferring knowledge from one to another. Rather, it is a complex process that facilitates and influences the process of learning (Remesh, 2012). Research works consistently reported that the teacher quality is the most predictable factor in students' academic success. Churchill,et. al. (2011) stated that teacher quality comprises a teacher's identity together with knowledge and skills in pedagogy, content and theory (as sited in Coffey, 2014). Quality of the teacher is estimated based on how knowledge transformation happens and also how he/she has helps students to construct their own knowledge.

Pre-service teachers can develop their teaching skills while doing teaching practice in teacher education program (B.Ed). Recently, this program has been extended to two years course based on the new regulations of National Council for Teacher Education (NCTE revised regulations, 2014) India by following the recommendations of the Justice Verma Commission, to ensure the quality and standard of teacher education. In addition, School internship would be a part of the B.Ed curriculum, which is considered as a practicum for the pre-service teachers. The first year pre-service teachers will take training for 4 weeks and second year pre-service teachers for 16 weeks and engaged with various activities like classroom teaching, preparing teaching resources and etc.in schools during their internships.

Micro Teaching Videos

Micro teaching is one of the helpful and effective techniques for learning and training teaching skills prior to internships in teacher education program (Remesh, 2012; Ajayi Dopemu, and Talabi, 1986). It is a conventional practice to develop essential teaching skills of novice teachers before they enter into the actual teaching situation in real class rooms.

Many researchers (Newhouse, Lane, and Brown, 2007; Kpanja, 2001; Lee, and Wu, 2006) have reported that several innovative approaches have been initiated to improve micro teaching skills which include modifications to the components of micro teaching skills, applications of video technology and collaborative learning with peers and reflections. One such approach is the use of video analysis, in which trainee teachers are videotaped in the teaching situation and then encouraged to analyze their performance (Pailliotet, 1995; Sherin, and Van Es, 2005; Rich, and Hannafin, 2009[a] Rich, and Hannafin, 2009[b]; Tripp, and Rich, 2011). As a result, pre-service teacherscan develop an increased awareness of their instructional strengths and weaknesses by observing the videos (Wu, and Kao, 2008; Fernandez, 2010).

Additionally, uprising of technology makes easy to capture and record videos in our fingertip. Digital camera or in-built camera in mobile phones has made digital video capturing and viewing effortlessly. Particularly, the smart phones are used to record digital videos, edit and upload them to the internet as well as to share videos through digital tools such as WhatsApp, Facebook, Instagram, Youtube and etc. The digital videos could also be used to analyze and visualize others performances too.

The use of digital videos in the beginning stage of micro teaching technique may have both advantages and challenges. One of the most important advantages of digital videos is to make self-evaluation and rectification (Collins, Cook-Cottone, Robinson, and Sullivan, 2004), feedback (Quigley, and Nyquist, 1992) and the strength of self-confidence (Kpanja, 2001) among trainee teachers. In addition, videos allow pre service interns to learn teaching skills, teacher-students interaction and developing problem solving skills through observing in video playback (Lee, and Wu, 2006).

More studies proved that video recordings are very useful to improve the teaching skills of pre-service interns. For instance, the results of a study revealed that the video recordings are most effective when they are used in micro teaching due to pre-service teachers' active participation and peer criticism received (Dymond, and Bentz, 2006; Umeh, Mogbo, and Nsofor, 2015). Another study clearly shows that the participants who practiced their skills with video recording tend to get mastery of specified teaching skills than who practiced their skills without video recording (Ajayi Dopemu, and Talabi, 1986). Additionally, Akalin, 2005; Albrecht, and Carnes, 2006), asserted that video recording and playback is a useful technology to improve feedback in micro teaching. Likewise, Fernandez, (2010) andKpanja, (2001), insisted that video-enabled and video-oriented discussion followed by critical reflection helped pre-service teachers to identify areas for improvement in their teaching. In the same vein, viewing of micro teaching videos helped them to gain insights and restructure the teaching through identifying, comparing, modifying and synthesizing (Rosan, and et, al., 2009; Aik-Ling, Wettasinghe, Seng-Chee, and Hasan, 2010).

One of the challenges is the participants may get nervous and also may develop negative attitudes since they feel video recordings were unnatural or artificial (Savas, 2012). Likewise, Linman, (1980) argued that, the participants will behave artificially and may have more thinking of their appearance on camera. Similarly, Pailliotet, (1995), pointed out that the participants mired in surface details such as their personal appearance or how they sound. Also, De Mesquita, Dean, and Young, (2010), mentioned that, the presence of camera and video recording in classroom environment may cause distractions and influence the behaviors and responses of the students and teachers. Furthermore, Dass, (1976) declared that many successful teachers are able to improve their teaching skills over the years without using of micro teaching videos.

Virtual Reality

Virtual reality is a technology that creates a simulated atmosphere like a real world. It is an imaginary world or an imitation of the real world created by a computer that allows the user to interact with them (Bhardwaj, Bhardwaj, & Gaur, 2016).In recent years, Virtual Reality (VR) technology is emerging as a new tool that allow us to think new ways to practice teaching skills. It provides strong immersive experience and rich interaction and it has gained great interest from researches and educators in the field of education (Zhou, Ji, Xu, and Wang, 2018). It also reduces time spent in real class rooms. Further, studies confirmed that virtual reality technology can greatly enhance field based learning opportunities and the level of confidence for pre-service teachers (Billingsley, and Scheuermann, 2014; Garland,Vasquez, and Pearl, 2012; Lowdermilk, and et.al, 2012). Similarly, the results of a study revealed that the use of VR technology makes learning interesting and improves the construction of knowledge (Zhou, Ji, Xu, and Wang, 2018). Alike, most importantly Ros, Trives, and Lonjon, (2017) succeeded in recording the videos and watching it on a virtual reality headset. This new approach enhances the operative skills among surgeons and appreciated its pedagogic value.

Paradigm

Aninnovative paradigm may involve a micro teaching video recording activity that will be carried out in four stages. In the first stage, each pre-service intern will select their topic and prepare lesson plan to teach. In the second stage, the pre-service interns will teach their lessons to peers who acted as learners in classrooms using micro teaching skills such as introduction, explanation, probing questions, illustrating with examples, stimulus variation, black board usage, and reinforcement. In addition, each intern will teach only 5-7 minutes due totime constraints and it will not affected the regular time table of the institutions. The micro teachings of each trainee will be recorded by the investigator through smart phone. After the micro teaching is over, each trainee will be receiving an oral feedback by both the investigator and peers which has also been video recorded on the same day.

The third stage involves obtaining the video files in mp4 or any other video format in smart phone. The video files will be edited using professional software like Adobe Premiere Pro, Wonder share Filmora etc. to create side by side screen videos. At the final stage, the

participants can view the new video files using smart phones with VR head set. The data will be collected from the participants after watching the videos.

Procedure

The participants might fill a consent form to be aware of the purpose of the study. The interns who volunteer will become the participants of the study. The survey will be conducted after viewing both teaching and feedback videos through VR headset and it will be organized with two main sections.

Section A: This section is designed to gather demographic data about the participants.

Section B: It includes statements that require responses from the participants in the form of four Likert scale options such as 'Strongly agree', 'Agree', 'Disagree', 'Strongly Disagree'. The statements are indicating about the effectiveness of micro teaching videos viewing through VR headset to enhance teaching skills of novice teachers. Descriptive analysis will be used to analyze the collected data. Each participant's response is analyzed and the total number of responses to each option in every statement will be calculated in terms of percentages.

Conclusion

New technologies assist to think about new ways to enhance teaching skills among novice teachers. The present study definitely supports the findings of other researches which investigates the use of video with pre-service interns. Notably the participants can absolutely gain immersive experience and properly engage in learning teaching skills with Virtual Reality technology. In addition, the student teachers could view the footage using their own smart phones with VR headset, which projects they were in the real classroom atmosphere. They will be able to discern particular aspects of their teaching that is both strengths and weaknesses individually. Also they get detailed aspects of their performance inclusive of the the tutors' feedback while watching the feedback videos. Further, one of the benefits of this new method is it does not require any advanced technological labs rather it can be adaptable even in an actual classrooms with VR headset. Also this method is cost effective. Besides, implementing this method will benefit the trainees to enhance their teaching skills and the institutions will progress with this new method of teaching.

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