Students' Perception on Teaching Practicum Evaluation using Video Technology

Lai Chee Sern, Nurul ‘Ain Helan Nor, Lee Ming Foong and Razali Hassan
Universiti Tun Hussein Onn Malaysia, Faculty of Technical and Vocational Education, 86400 Batu Pahat, Johor, Malaysia

Corresponding author: lcsern@uthm.edu.my

Abstract. Video technology has been widely used in education especially in teaching and learning. However, the use of video technology for evaluation purpose especially in teaching practicum evaluation have not yet been fully discovered. For that reason, this quantitative research aimed at identifying the perceptions of trainee teachers towards teaching practicum evaluation via video technology. A total of 260 students of Teacher Certification Programme (Program Pensiswazahan Guru - PPG) from the Faculty of Technical and Vocational Education (FPTV) of Universiti Tun Hussein Onn Malaysia (UTHM) had been randomly selected as respondents. A set of questionnaire was developed to assess the suitability, effectiveness and satisfaction of using video technology for teaching practicum. Conclusively, this research showed that the trainee teachers have positive perceptions in all three aspects related teaching practicum evaluation using video technology. Apart from that, no significant racial difference was found in the measured aspects. In addition, the trainee teachers also showed an understanding of the vast importance of teaching practicum evaluation via video. These research findings suggest that video technology can be a feasible and practical means of teaching practicum evaluation especially for distance learning program.

1. Introduction

Teacher Certification Program (Program Pensiswazahan Guru - PPG) is a special programme offered by the Ministry of Education (MOE) for in-service teachers to ensure that teachers have at least a bachelor’s degree qualification (Institut Pendidikan Guru, 2011). PPG allows in-service teachers to pursue a four-year bachelor’s degree program in university or Teacher Education Institute. The teachers who participate PPG have to teach at school as usual during weekdays and attend classes at university during weekends. As part of the bachelor’s degree curriculum, they must undergo teaching practicum at school for three months.

One of the important components in teaching practicum is evaluation conducted by university supervisor. University supervisor will usually go to the schools/colleges where the trainee teachers undergo teaching practicum and evaluation will be done during teaching process conducted by the trainee teachers. Teaching practicum evaluation by university supervisor through direct observation in the classroom benefits trainee teachers in several ways. For instance, according to Holi Ali and Ahmed Al-Adawi (2013), constructive comments and recommendations given by supervisor during evaluation are important for trainee teachers to improve their teaching skills and classroom management. This form of positive communication enables the trainee teachers to be more proactive and systematic in assessing their own teaching style and instructional strategies.
Nevertheless, there are many challenges faced by university supervisors when evaluating teaching practicum. According to Khalid et. al. (2014), time constraints is one of the major problems in the evaluation of teaching practicum because the university supervisors are usually assigned to evaluate many trainee teachers in different institutions. Therefore, a lot of time is consumed not only for evaluation and but also for travelling from one institution to another. Besides that, heavy workloads faced by university supervisors and their evaluation skill are regarded as major problems as well (Merc, 2015). These factors might significantly influence the effectiveness of teaching practicum evaluation in school.

To deal with the aforementioned issues, video technology has been used as a tool for teaching practicum evaluation in order to mitigate the problems faced by university supervisors. The teaching practicum evaluation using video technology is done indirectly, which means that there is no face-to-face observation in classroom performed by supervisor. In this evaluation technique, the PPG trainee teachers are required to record his/her teaching and learning session in class and the recorded video has to be sent to university supervisor either via email or conventional postal delivery service. This strategy can benefit the university supervisors as it can both save time and university supervisors do not need to directly supervise the trainee teachers at school. However, by utilising this approach, the immediate feedback process is being halted thus hindering the effectiveness of feedbacks. On top of that, the video recordings cannot visualise the exact process and environment of the teaching while in a classroom setting. According to Abdul Raof and Subahan (1991), students usually would be more disciplined when the supervision is conducted face-to-face as though the trainee teachers are being observed. When the trainee teachers are being observed their behaviors tend to be unnatural and as if of an act.

Conversely, Rajab (2006) mentioned that direct evaluation can cause anxiousness to the trainee teachers stemming from the worries of not reaching the expectation of the supervisor. On contrary with teaching practicum via video, this problem can be overcome as trainee teachers have the opportunity to edit the video before sending to supervisor or re-record the teaching session if it is not done perfectly. According to Abdul Raof and Subahan (1991), teaching practicum was often not given emphasis even though this is one of the main components in teacher training education. It might be due to the emphasize on administrative matters by the teachers training institutions. This neglect could bring about a negative impact especially to the future generation of teacher.

Based on the current literature, the research within the sphere of practicum evaluation using video technology is fairly scarce. This scenario explains the reason why quantitative and qualitative information pertaining to teaching practicum evaluation using video technology is almost invisible in the literature. The lack of research in this topic has inspired researcher to conduct more research regarding practicum evaluation using video technology especially in the context of Malaysia as this is an vital field in teacher's education. Therefore, this research was conducted to investigate the perception of PPG trainee teachers on teaching practicum evaluation using video technology.

2. Research Objectives
In specific, this researcher is guided by the objectives as follows:

i. To identify students' perception on the suitability, effectiveness and satisfaction of teaching practicum evaluation using video technology
ii. To find out the differences of perceptions among the trainee teachers according to demographic data.

3. Teaching Practicum Assessment's Components
Teaching practicum evaluation elements can be divided into seven components. It includes Component A (Teaching Plan), Component B (teaching implementation), Component C (Innovation), Component D (Innovation Justification), Component E (Ethics), Component F (Portfolio) and Component G (Reflection) (Buku Panduan Latihan Mengajar Fakulti Pendidikan, 2012). The teaching
session can be either related to theory or practical/hands-on. The details of each evaluation component are as follows:

**Component A: Teaching Plan**
This part is related to the planning of teaching session in order to reach the learning objectives as well as optimising the learning outcomes. Specifically, this component is composed of six items that measure learning objectives, learning contents selections and arrangement, teaching and learning strategy, teaching aids, moral values, and thinking skill.

**Component B: Teaching Implementation**
In this section, the teaching implementation is evaluated based on the recorded teaching session in classroom. Basically, supervisor will assess whether lesson is conducted in accordance with the teaching plan and the smoothness of teaching process. The assessment for this component comprises seven items which include teaching management and preparation, usage of teaching aids, teaching development, mastery of content knowledge, communication, cultivation of moral values, and objectives achievement.

**Component C: Innovation**
Innovation is evaluated based on the planning and preparation of the video which must embedded innovative elements in teaching. PPG trainee teachers are required to plan and prepare the innovative teaching before videotaping the teaching lesson. The contents and innovative teaching and learning activities must be in line with the learning objectives for that particular session. Other items include evaluation, reflection and the overall capture of video.

**Component D: Innovation Justification**
The trainee teachers are required to justify the implementation of innovation. There are four items that are being assessed in this component. The first item is related to the supporting documents. Next item measures whether the innovation is needed for the teaching session. The third item measure whether the innovation is supported with latest information, and finally, the trainee teacher must obtain approval from the school managerial personnel in order to implement the innovation in classroom.

**Component E: Ethics**
The trainee teachers will be evaluated in terms of ethics. This component consists of four items that assess the appearance as a teacher, concern towards students, character, and professionalism.

**Component F: Portfolio**
The trainee teachers are required to produce a portfolio that contains information related to the trainee, institution, teaching plans and schedule, log book, journal, students’ assessment and etc. In this component, there are four items that will be used to assess the trainee teachers from the aspects of completeness and update of information, log book writing, journal writing and creativity in portfolio preparation.

**Component G: Reflection**
In this reflection part, it is generally evaluated based on self-reflection towards previous teaching session. Several aspects are assessed. For instance, supervisor will assess whether a trainee teacher has written the reflection critically or analytically. This is important as it enables trainee teachers to predict the consequences of an action and act accordingly based on evidence. Finally, revising and redesigning a plan from that evidence is needed for the purpose of improvement in teaching and learning.
4. Methodology

Two aspects are discussed in methodology, namely sample and instrument.

4.1 Sample:
Purposive sampling method was used to select the research subjects. Specifically, a total of 260 trainee teachers under PPG were selected to participate in this research. Of the total respondents, 97 respondents were male and 163 were female. The distribution of respondents based on race is shown in Table 1.

Table 1: Total Number of PPG students based on race

| Race  | Number of Students | Percentage (%) |
|-------|--------------------|----------------|
| Melayu| 165                | 64             |
| Cina  | 71                 | 27             |
| India | 24                 | 9              |

4.2 Research Instrument
A set of self-developed questionnaire was used as research instrument in this research. The questionnaire was composed of four sections, which were Part A (demographic information), Part B (suitability of the practicum evaluation using video technology), Part C (effectiveness of practicum evaluation using video technology) and Part D (satisfaction of the PPG trainee teachers on practicum evaluation using video technology. Part B, C and D each contained 10 items respectively. Four-point scale was used in the questionnaire, ranging from 1 (strongly disagree), 2 (disagree), 3 (agree) to 4 (strongly agree). Four experts from FPTV were referred in order to obtain surface validity as well as content validity. The items were refined according to the experts’ comments and suggestions. The instrument yielded sufficient level of reliability, \( \alpha = 0.96 \).

5. Findings

The findings are presented based on research objectives.

5.1 Trainee Teachers’ Perceptions on Suitability, Effectiveness, and Satisfaction
The overall analysis results shows a positive perception of students towards the suitability of practicum evaluation using video technology with a mean=3.07 (SD=0.08). In terms of effectiveness of the management of teaching practicum evaluation using video technology, the result also indicates moderate level of effectiveness (M=2.69, SD=0.55). Similarly, there is a moderate satisfaction level of satisfaction PPG trainee teachers towards teaching practicum evaluation using video technology (M=2.72, SD=0.52). Table 2 shows the results of trainee teachers’ perceptions.
Table 2: Mean Score of PPG students' Perception toward Practicum Evaluation using Video Technology

| No. | Objectives                                                                 | Mean (SD) | Result/Level |
|-----|---------------------------------------------------------------------------|-----------|--------------|
| 1   | The PPG students' perception on the suitability of teaching practicum evaluation using video technology. | 3.07 (0.08) | High         |
| 2   | The PPG students' perception toward the effectiveness of the management of practicum evaluation using video technology? | 2.69 (0.55) | Moderate     |
| 3   | The PPG students' satisfaction towards practicum evaluation using video technology? | 2.72 (0.52) | Moderate     |

5.2 Differences of Perceptions Based On Race

Based on Table 3, the ANOVA results indicate that there were no significant differences between races in terms of the suitability, effectiveness and satisfaction of PPG students towards teaching practicum evaluation using video technology. The ANOVA result for the suitability of practicum evaluation using video technology was $F(2,257)= 0.45$, $p>0.05$, effectiveness was $F(2,257)=0.34$, $p>0.05$ and the satisfaction of student towards practicum evaluation using video technology was $F(2,257) = 0.46$, $p>0.05$.

Table 3: ANOVA result of PPG Students' Perception to Practicum Evaluation using Video Technology

| Hypothesis                                                                 | $p$  | F Value |
|---------------------------------------------------------------------------|------|---------|
| (i) There is no significant difference in terms of suitability of practicum evaluation using video technology between Malay, Chinese and Indian trainee teachers. | 0.64 | 0.45    |
| (ii) There is no significant difference in terms of effectiveness of practicum evaluation using video technology between Malay, Chinese and Indian trainee teachers. | 0.71 | 0.34    |
| (iii) There is no significant difference in terms of satisfaction of PPG students towards practicum evaluation using video technology between Malay, Chinese and Indian trainee teachers. | 0.63 | 0.46    |

7. Discussion

Firstly, the perception of PPG trainee teachers towards the suitability of the implementation of video technology in teaching practicum evaluation was at high level. This result reflects the fact that PPG trainee teachers have perceived that video technology can be used as an innovative evaluation method for teaching practicum. This evaluation method is suitable in terms of evaluating reflection, usage of teaching aids, implementation of innovation, interaction between teachers and students during teaching and learning process, and also professionalism of the teacher. Teaching practicum evaluation via video has significant impact as Khalid et al, (2014) said, by using video, it provides a new learning context, evaluation and skills enhancement in education. Nevertheless, the result revealed
that teaching practicum evaluation using video technology is unable to assess the teachers' professionalism. Yani, Rianita and Utami (2015) states that professionalism of a teacher can be influenced by many factors, such as academic qualification, training and competency. Thus, professionalism evaluation cannot be solely gauged by just teaching practicum evaluation using video. Apart from that, the result showed a good perception of student regarding effectiveness of management of teaching practicum evaluation using video technology. The management effectiveness of practicum evaluation is gauged based on several aspects, such as the flexibility in video preparation and video submission, evaluation rubric preparation, supervisor’s readiness for evaluation, and systematic management. The finding from this research also showed that respondents have perceived that the way the faculty manage the practicum evaluation using video technology was well organised and systematic. Using video technology in evaluation brings many benefits, such as saving time, reducing cost and minimising challenges faced by students. This outcome is supported by Woolfitt (2015) who mentioned that video was a potential medium for teaching and learning especially for long distance education. Therefore, embedding video technology in teaching practicum evaluation is regarded as an effective form of teaching training for PPG students.

From the aspect of students’ satisfaction, the present research found out that majority of the PPG trainee teachers were satisfied with using video technology for teaching practicum evaluation. This was judged based on students’ perspective in terms of teaching innovation, evaluation components, supervisors’ expertise, evaluation procedure, advice and guidance provided by faculty to PPG students, and feedback from supervisor. In specific, the result revealed that the respondents were satisfied with innovative teaching. However, the respondents were not satisfied with the feedbacks provided by the supervisor. This finding might be due to the fact that the trainee teachers did not receive feedback directly right after the teaching session. They received feedbacks from supervisor several weeks later after the submission of video. This might be problematic because the trainee teachers might have forgotten the activities they did during the recorded teaching session. This is as though one way communication between trainee teacher and supervisor. Drago (2015) states that the limitation of technology nowadays is that it restrains two ways face-to-face communication. Undoubtedly, this may happen between lecturer and students if technology is not appropriately utilised. In short, the satisfaction factors reflects the quality of an institution in managing teaching practicum.

On top of that, the present research discovered that there was no significant difference between the PPG students' perception on teaching practicum evaluation using video technology between Malays, Chinese, and Indian students. This finding is consistent with the research output found by Supramaniyam (2015). Supramaniyam stated that all teachers, regardless of race, showed positive support, confidence and joy towards development and utilisation of Information and Communication Technology (ICT) in teaching. However, this is refuted by Mohamad, Othman, and Mohammed Idrus (1999) who asserted that there was a difference in the acceptance of technology (e.g., video technology) by different races. However, according to Muslim, Musa and Buang (2011), humans are generally indifferent within the context of humanity and pride, regardless of geographical and temporal boundaries, although humans are different physically, culturally, and religiously. This proves that the insights or perceptions between races have not much significant differences. The present findings are most probably due to the similar exposure of PPG students to the use of educational technology in teaching and learning, and assessment in the same university programme. Therefore, the perception of PPG students toward teaching practicum using video technology does not differ substantially.

8. Conclusion
In conclusion, there is positive perception of PPG students towards the suitability, management effectiveness and satisfaction in teaching practicum evaluation using video technology. This shows that although video technology is plausible to be used in teaching practicum evaluation. In addition, the present findings also reflect that the PPG students possess high level of flexibility and ability to
adapt innovative technology in their works. Flexibility and adaptability are one of the major skills that needs to be cultivated as it is most required in the workplace (Holtkamp, 2014; Origo & Pagani; 2008).

The teaching practicum evaluation using video is relatively new, however, it gives a new paradigm to educational evaluation and it is able to enhance the trainee teachers’ skill especially in terms of psychosocial and pedagogical skills, such as development and handling of teaching aids.

Although video technology is beneficial to teaching practicum evaluation, there are rooms for improvement. First, faculty should provide more trainings related to video recording for students. Students should be trained to produce a better quality video for the evaluation purpose. Secondly, since face-to-face observation does not exist in video-based evaluation, then the evaluation components and the way a supervisor evaluates should not be identical to the conventional one. Hence, supervisor should also be trained on how to conduct teaching practicum evaluation via video.

Lastly, an online platform should be created to allow students to upload the video easily, and at the same time, it allows supervisor to provide feedbacks to the students directly and promptly.

In conclusion, video technology has garnered attention regarding the importance and benefit it has in teaching practicum. The ever improving technology nowadays may potentially increase the quality of teaching practicum if proper utilisation is implemented and it can be a feasible and practical means for teaching practicum evaluation especially for distance learning program.

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