

# Canada International Conference on Education (CICE-2017)

## Using Video Reflection to Promote Pre-service Kindergarten Teachers' Self-efficacy

The Education University of Hong Kong

Dr Yau-ho Paul Wong

Dr Lai-ping Ellie Chung



This research was supported by the Teaching Development Grants (2015/16) from The Education University of Hong Kong

For private study or research only.  
Not for publication or further reproduction.

# Background

- ▶ Traditional method of teaching supervision lacks authentic evidence when providing feedback to student teachers.
- ▶ The exponential growth of computer technology and the popularity of blended learning in education.
- ▶ Research has shown that teachers' self-efficacy (the belief of their capabilities to bring about desired outcomes of student engagement and learning, cited in Bandura, 1977) is related to effective classroom instructions and students' academic achievement. (Guo, Piasta, Justice, & Kaderavek, 2010; Giallousi et al., 2014).
- ▶ Little research on the impact of using tablet device on student teachers' learning outcomes. Impact of using tablet device on teaching practice to promote student teachers' self-efficacy. Video engages novice teachers in deep levels of reflection to examine their own teaching beliefs. In the long run, the provision of sufficient authentic evidence is expected to enhance self-efficacy.

# Purposes of research

- ▶ To examine the impact of using video analysis on promoting pre-service kindergarten teachers' self-efficacy
- ▶ To examine teachers' attitudes on using iPad for teaching reflections



The Education University  
of Hong Kong Library

For private study or research only.  
Not for publication or further reproduction.

# Methods

## Design

- ▶ A mixed method approach.

## Sample

- ▶ Sixteen field supervisors and 128 pre-service teachers (studying Higher Diploma and Bachelor Degree in Early Childhood Education) participated voluntarily.

## Instrument

- ▶ The Teachers' Self-Efficacy Scale (TSES, Tschannen-Moran & Woolfolk Hoy, 2001) is used to measure teaching efficacy.
- ▶ It has 12 items, formatted in a Likert scale (from "1" that represents nothing, to "9" that represents a great deal) with satisfactory reliability and validity.

## Procedure

- ▶ Supervisors were trained to use iPads to video students' teaching moments when conducting their teaching practicum.
- ▶ All pre-service teachers were asked to rate the Teachers' Self-Efficacy Scale to examine any change in self-efficacy levels before and after using iPads in their teaching practice.
- ▶ Attitude questionnaires were sent to both supervisors and students to collect their quantitative feedback.

- ▶ Three focus interview groups were conducted to interview students.

- ▶ Two focus interview groups were held to solicit supervisors' opinions about using iPads during their teaching supervision.

# Data analysis

- ▶ Paired t-test was used to examine the mean difference between the pre- and post-test scores in self-efficacy.
- ▶ The percentage distribution was computed to illustrate the attitudes of supervisors and pre-service teachers.
- ▶ Content analysis was adopted to examine the interview data: Both authors examined the transcribed interview content independently to identify themes. These emerged themes were then matched and discussed to achieve consensus.

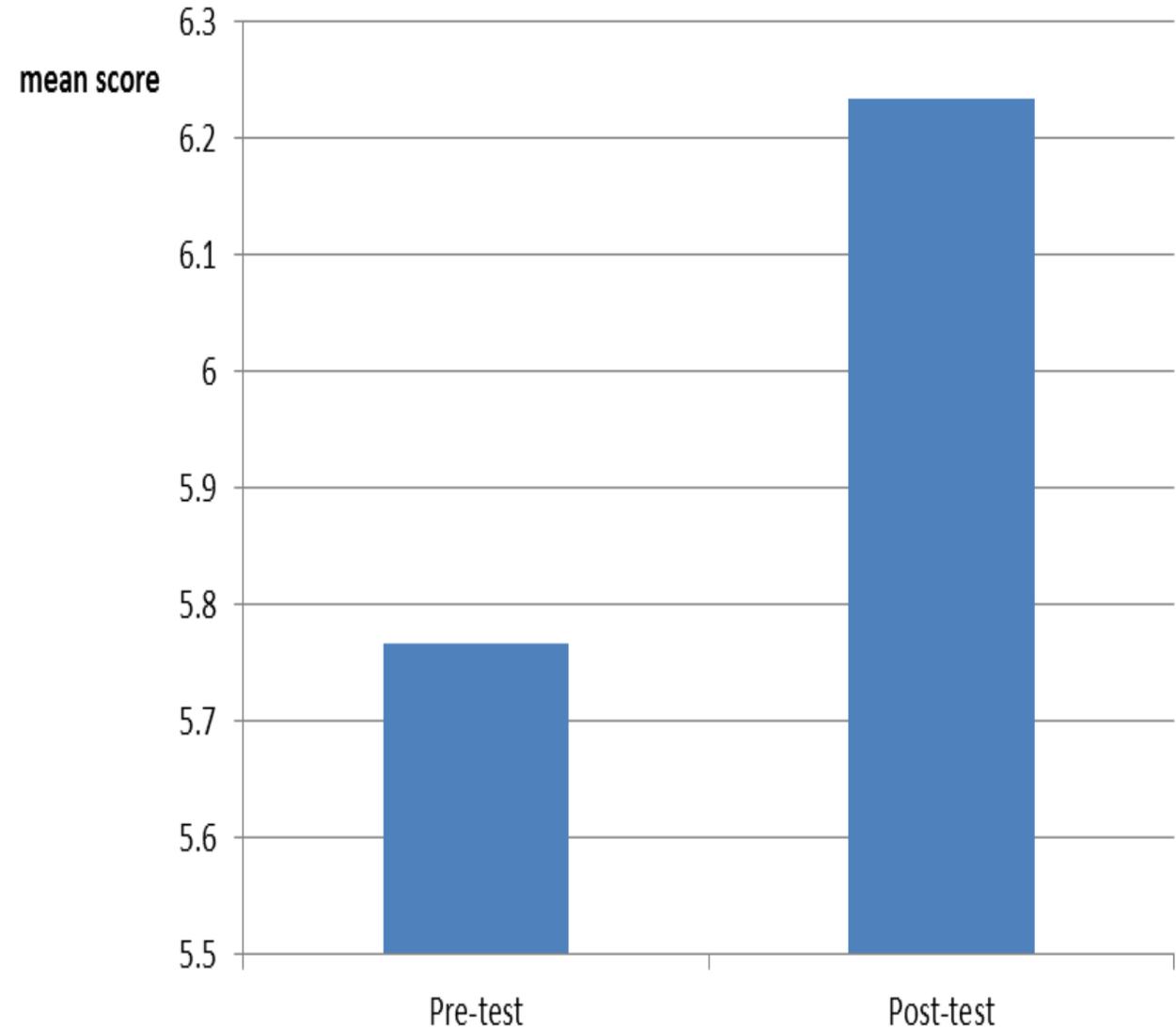
# Results

- *An increase in student teachers' self-efficacy*
  - A significant change in scores between the pre-test (n=127) and post-test (n=89) was found ( $p < 0.001$ ,  $t(87)$

found ( $p < 0.001$ ,  $t(87)$

= -4.906).

## Mean score of pre-test and post-test

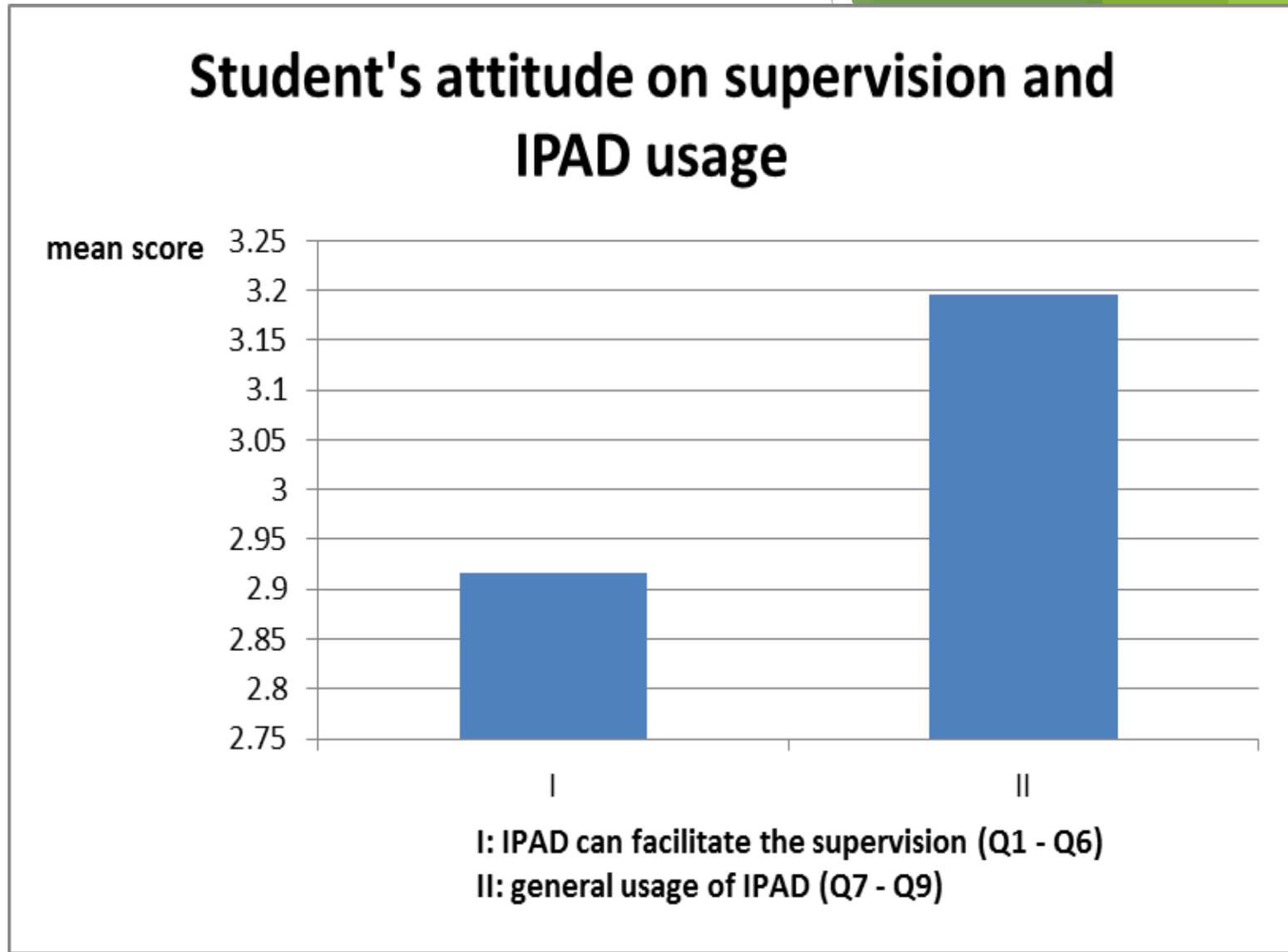


The Education University  
of Hong Kong Library

For private study or research only.  
Not for publication or further reproduction.

➤ *Student teachers' attitude towards the use of iPads was positive*

- A mean score of 3.1 (based on a Likert scale of 1 to 4; with 4 being the highest rating) was found.

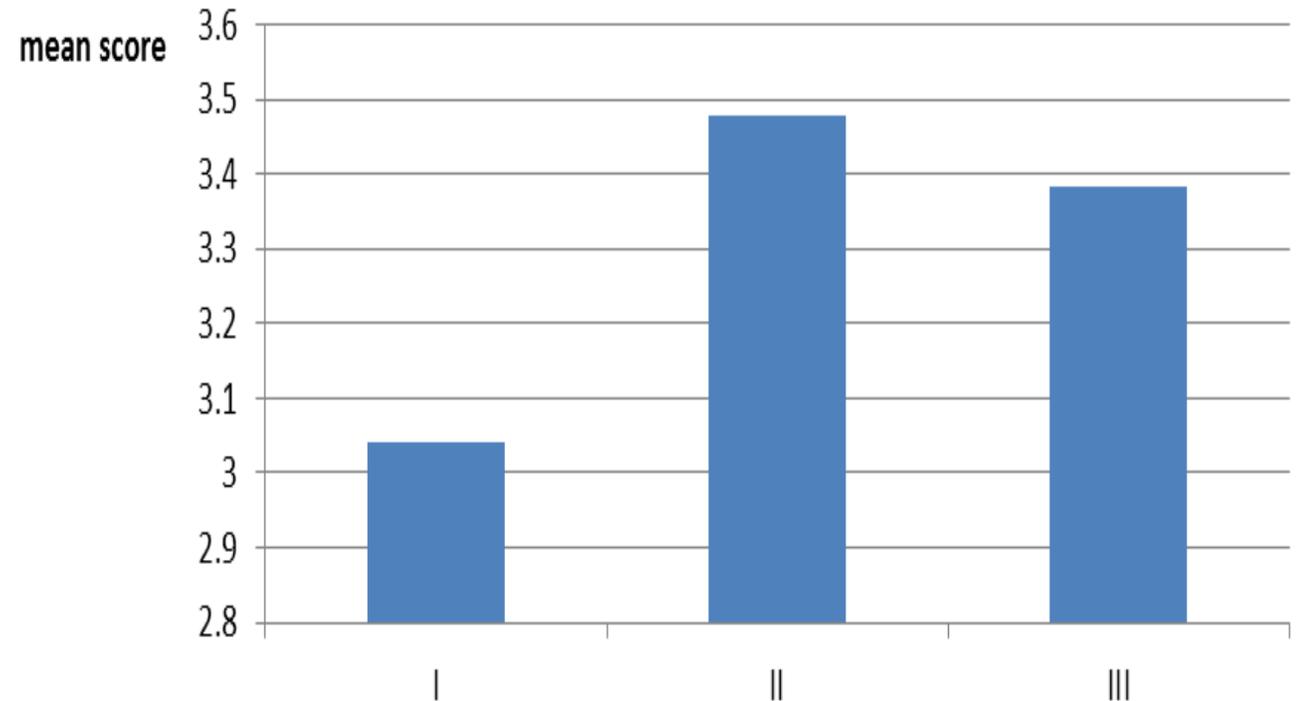


The Education University  
of Hong Kong Library

For private study or research only.  
Not for publication or further reproduction.

- *Field supervisors' attitude towards the use of iPads was positive*
- A mean score of 3.2 (based on a Likert scale of 1 to 4; with 4 being the highest rating) was found.

## Supervisor's attitude on supervision and usage of IPAD



I: IPAD can facilitate students in supervision  
II: IPAD can help the supervisor in supervision  
III: the general usage of IPAD



The Education University  
of Hong Kong Library

For private study or research only.  
Not for publication or further reproduction.

# Qualitative findings

## A. Perceived usefulness

### 1. Providing details and specific reflection in teaching practice

- ▶ Student teachers have all-round sources for reflection in their teaching. They can stand in a third person's position to have detailed and specific review.

*“I could see specific issues [in my teaching]. I could clearly understand them when [my supervisor] discussed with me.”*

- ▶ Student teachers perceived that iPads provided concrete evidences to facilitate their memory recall and self-reflection, especially on the micro-teaching aspects.

*“I could see specific issues [in my teaching].”*

*“I could clearly understand when [my supervisor] discussed with me.”*

- ▶ Supervisors felt that iPads could provide concrete evidence to students for reflection but they were concerned about their technical capability to use iPads effectively.

## 2. More positive interaction between students teachers and supervisors

- ▶ When reviewing the records in iPad, students teachers and supervisors could solve any disagreement.

*“The video review was helpful, at least no more argument. For example, [my supervisor] said that I was not polite. After reviewing the video, I did not have any objection.”*

## 3. More confidence for reflecting and teaching

- ▶ iPad provided clear pictures and directions for students teachers to reflect what they did well and what they had to improve.

*“I could reflect the weaknesses of my teaching through watching the video records. For example, when we sat in a circle during music activities, my eye contact usually focused on the front but less on two sides.”*

#### 4. Feeling ambivalent and embarrassed

- ▶ However, some student teachers felt ambivalent and embarrassed because they were concerned about their errors would be magnified.

*“I felt stressful when I was videoed.”*

*“As I was stressful when being videoed, my teaching efficacy could be influenced.”*

*“When [my supervisor] reviewed the video with me, I feared to face my poor teaching and did not want to hear what I said. I was scary.”*

*“I felt embarrassing to hear what I said in the video.”*



The Education University  
of Hong Kong Library

For private study or research only.  
Not for publication or further reproduction.

# B. Perceived ease of use

## 1. Frustration due to technical issues

- ▶ As some supervisors were not familiar with using iPads, they felt less confident in using the iPads. Some supervisors did not know how to watch the video, and search target practicing moments in the video record.

*“[My supervisor] was very panic and asked me how to find out [the video record].”*

*“I recorded a long video clip, but it was difficult for me to pick the teaching moments that I wanted.”*

## 2. Being time consuming

- ▶ During post-practicum discussion, the supervisors and student teachers took time to review the picture, audio and video records.

*“When I took video, I could not jot down notes...It took time for me to review through the video clip.”*

## Conclusion

- ▶ Student teachers' self-efficacy were improved in general after supervisors used iPads.
- ▶ Both supervisors and students showed positive attitudes toward using iPads for improving teaching practice.
- ▶ Current findings have implications for teachers-training institutions and school principals in relation to the use of video reflection for improving teachers'



The Education University  
of Hong Kong Library

For private study or research only.  
Not for publication or further reproduction.

# Reference

- ▶ Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: W.H. Freeman.
- ▶ Giallousi et al (2014). Using Student-Teachers' Reports of Self-Efficacy to Evaluate an Early Childhood Science Course. *Journal of Early Childhood Teacher Education*, 35(4), 337-356.
- ▶ Guo, Y., Piasta, S. B., Justice, L. M., & Kaderavek, J. (2010). Relations among preschool teachers' self-efficacy, classroom quality and children's language and literacy gains. *Teaching and Teacher Education*, 26, 1094-1103.
- ▶ Tschannen-Moran, M., & Hoy, A. W. (2001). Teacher efficacy: Capturing an elusive construct. *Teaching and teacher education*,

17(7), 783-805.



The Education University  
of Hong Kong Library

For private study or research only.  
Not for publication or further reproduction.

# THANK YOU

## Q & A



**The Education University  
of Hong Kong Library**

For private study or research only.  
Not for publication or further reproduction.