Exploring a Transformative Teacher Professional Development Model to Engender Technology Integration in the 21st Century ESL Language Classrooms

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ABSTRACT

A 21st century teacher must communicate in the language and style of their students to ensure that their learning is meaningful. However, this is challenging, especially for teachers who are less familiar with using technology in teaching. To inspire a group of ESL ‘digital immigrant’ teachers, a professional learning community (PLC) was set up. PLC consisted of both pre-service teachers (digital natives) and in-service teachers (digital immigrants). The two groups exchanged knowledge through a series of sharing sessions to demonstrate the technical aspects of technology, as well as to provide an understanding that technology has affordances and constraints. This case study investigates a group of in-service teachers who adopted the IDDIRR instructional design model (introduce, demonstrate, develop, implement, reflect, revise) to develop technology-based lessons for their ESL classrooms. The data for this study were collected through three main instruments: surveys, interviews and written reflections. The survey data was descriptively analysed using SPSS Version 24, while the reflection and interview data were assessed using thematic analysis. The findings suggest that the IDDIRR-TPACK + PLC model, along with a supportive PLC environment and the presence of more knowledgeable peers (MKO), helped enhance teachers’ TPACK and inspired them to integrate more technology in their classrooms.

KEYWORDS

21st Century Learning, IDDIRR Model, In-Service Teachers, PLC, TPACK

INTRODUCTION

To effectively teach as a ‘digital immigrant’ teacher in a 21st century classroom filled with ‘digital native’ learners is not an easy task. Information and communication technology have become ubiquitous (embedded and integrated in almost every aspect of our daily lives). Therefore, the manner in which 21st century ‘digital native’ learners interact and learn has tremendously changed compared
to yesteryears. This change is what Prensky (2001) – who also coined the terms ‘digital immigrants’ and ‘digital natives’ – described as “singularity”; i.e. a change that is so fundamental that there is absolutely no turning back. As a result, there is an urgent demand for education to change from the traditional ‘chalk and talk’ and for teachers to be more adept at integrating technology with education within the curricular content (Mishra & Henriksen, 2013). Research reviews and scholarships on technology integration have identified teacher knowledge as one of the key obstacles for effective technology integration (Mishra & Koehler, 2006). The findings reveal the need for teachers to know more than just the technical aspects of technology; they must also recognise that technology has affordances and constraints. This understanding is necessary for representing content as well as identifying pertinent teaching approaches (Harris, Mishra, & Koehler, 2009). Moreover, pedagogies known to affect the quality of learning are not widely practiced despite their promotion in teacher education (Hume & Berry, 2013). Korthagen (2010, p. 98) reported that in the last 20 years, studies have shown that many teacher education graduates “implement little of what they had learnt during their professional preparation.” They typically resort to conservative and traditional transmissive pedagogies as a survival mechanism (Hume & Berry, 2013).

At the same time, researchers in the field of in-service teacher development have consistently worked on exploring approaches and strategies for effective and sustainable teacher professional development, as shown in a number of research and scholarships (e.g. Dede, Ketelhut, Whitehouse, Breit, & McCloskey, 2008; Avalos, 2011). Literatures in the field of continuous professional development (CPD) for teachers have explored and offer comparisons of the various models of CPD for in-service teachers to provide some insights to what an ‘ideal’ model of CPD, particularly the ones that promote both continuous and sustainable development, should look like. Kennedy (2005) for example has identified a number of key models of CPD and classified them in relation to their capacity for supporting professional autonomy and transformative practice. The transmission category refers to models of CPD which are conceived as fulfilling the function of preparing teachers to implement reforms. The transitional category includes models of CPD which can be placed in between the transmission and transformative categories. These CPD models are considered ‘transitional’ in the sense that they have the capacity to support underlying agendas compatible with either of the other two categories. The transformative category includes models of CPD which are conceived as supporting teachers in contributing to and shaping education policy and practices (p. 248). As the need for transforming methodology and instructions in the classroom is becoming one of the most prominent topics when discussing 21st century education, it can be argued that teacher professional development should also undergo transformations. The topic of 21st century teacher professional development should be given the same importance as 21st century learning. Various literatures have established how the needs of 21st century learners’ have changed tremendously compared to yesteryears, and so are their learning styles (e.g. Prensky, 2001; Rourke, 2002; Kinash, Wood & Knight, 2013). Therefore, it can be argued that it is not only paradoxical, but also counter-productive for educators to think that teacher professional development in the 21st century can remain the same as it was before while simultaneously advocating for 21st century education.

Given the importance of preparing in-service teachers for 21st century teaching skills in a 21st century classroom, a study that examines an effective model for the professional development of in-service teachers is highly timely and relevant. Numerous studies have been accomplished to investigate in-service teachers’ views of professional development programmes for Malaysian teachers (e.g., Kabilan & Vetharaju, 2013; Barzey, 2014; Hughes, 2014; Nirmal, 2016). Their findings strongly suggest that there is an urgent need to revamp the way professional development programmes for in-service teachers are designed and conducted. While it is true that there is no ‘one size fits all’ when it comes to professional development programmes, previous research suggests that there seems to be certain universal and underlying criteria which can ensure that these programmes are effective, useful and sustainable (Nirmal, 2016). These criteria include appropriateness to the needs of schools, teachers and pupils (Kabilan & Vetharaju, 2013), presenting opportunities to collaborate with others
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