

# Chapter 13

## A TL–TPACK Model on CSL Pre–Service Teachers’ Competencies of Online Instruction

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### ABSTRACT

*This chapter aims to introduce the integration of TPACK into a Chinese pre-service teacher training program and discuss its outcomes and challenges. First, the concept of TPACK was introduced and relevant TPACK research and its constraints in the previous studies were discussed. Through the partnership between a Chinese pre-service teacher training program in Taiwan and a Chinese learning program in the States, the author developed a Teaching and Learning Model, entitled TL-TPACK model, integrating practicum, course design, advisors, peer cooperation, and reflections—five training strategies to ensure the training and learning outcome. At the end of the chapter, an empirical Chinese pre-service teacher training study applying the TL-TPACK model was conducted to investigate pre-service teachers’ seven TPACK competences and Chinese learners’ learning performance. Finally, research implications and suggestions for future studies were discussed.*

### INTRODUCTION

In the 21<sup>st</sup> century, Chinese as second/foreign language (CS/FL) learning has gained great attention; numerous research began discussing Chinese learners’ learning issues (Wang, 1998; Williams, 2013), but few empirical studies investigated issues in CS/FL teacher training. The development of technology has changed learners’ learning behaviors and allowed users easy access to resources, and CSL/FL learners are not exceptional. If Chinese teachers possess knowledge about what digital resources are proper for certain learning purposes, they can effectively apply appropriate resources to students’ in-class or after-class learning. Unfortunately, mostly Chinese teachers remain digital immigrants who have perceived technology suspiciously. Research has mentioned that many in-service teachers do not use technology in instruction (Galanouli & McNair, 2001; Sessoms, 2008), and think the impact of technology on in-

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structional methods is peripheral (Chaptal, 2002; Zhao, Pugh, Sheldon, & Byers, 2002; Koehler, Mishra & Yahya, 2007; Teo, et al., 2008), not to mention CS/FL teachers.

The reason for this type of perspective might be due to the comfort zone with old non-technological based materials, the rapid changes of digital products (Liu & Lan, 2014), possibly the limited technology use in their teaching institutes (Bos, 2011), and age factor (Cheng, 2009; Lee & Tsai, 2010; Yeung, et al, 2014). In real classrooms, CFL/SL language teachers, especially experienced teachers, tend to embrace real objects, gestures, and non-technological materials, which are easier to use in their current language lessons and have been used for years. Yet, the rapid development of technology makes new educational tools available and begins challenging language teachers' old instructional habits. Chinese Teachers facing such complicated challenges nowadays become not only reluctant to apply technology into classroom instruction, but also uneducated about how to apply proper technology into foreign/second language instruction. Such attitudes may affect the perceptions of new teachers in the same working environment toward technology integration in FL/SL instruction. This may be one of the reasons hindering the development of technology-enhanced instruction in CF/SL teaching.

Many educational entities propose guidelines indicating the importance of preparing Chinese language teachers to use technology in educational settings (ACTFL standard, 2015; Chinese Language Association of Secondary-elementary Schools, 2015). However, the controversy between expectation and reality shows technology's integration in CF/SL education is still in its infancy. To resolve this issue, changing teachers' instructional behaviors and developing their professional knowledge of instructional technology become a crucial task that also needs more attention from scholars, educators, and teacher trainers.

## **TECHNOLOGY AND CHINESE TEACHER EDUCATION**

Researchers found that some teacher training programs place ICT (Information and Communication Technology) courses as an elective option (Brown & Warschauer, 2006; Hsu & Sharma, 2006; Lim et al., 2010). Take teaching Chinese as CS/FL institutions in Taiwan as an example. There are approximately seventeen CS/FL teacher training institutions and only forty percent of them (around seven institutions) list this course: *Multimedia Assisted Chinese Instruction* as a requisite for undergraduate pre-service teacher programs. Out of the seven institutions, only one institution offers this course as a requisite at the master level. Considering the larger population of undergraduate students, this reality shows that pre-service Chinese teachers with a bachelor's degree may acquire more knowledge about technology instruction than those with master's degree. In general, insufficient instructional technology training offered through Chinese pre-service teacher programs is certainly evident in Taiwan, even though Taiwan is considered a high-tech country, where the accessibility of technology products for teachers is not a problem.

A successful technology integrated teacher training program should offer teachers opportunities to utilize technology to advance their professional development and promote authentic learning experiences (Hsu & Sharma, 2006). A solid theory orienting pre-service teachers to adopt technology for enhancing student learning in the classroom is necessary. Mishra and Koehler expanded Shulman's (1986) theory of Pedagogical Content Knowledge (PCK) and their new Technological Pedagogical and Content Knowledge (TPACK) framework provided pre-service or in-service teacher education with a lens to examine teachers' training outcomes from a course, workshop, or program. TPACK is a theoretical concept for teacher trainers to plan a training program that allows teachers to develop the knowledge of how to use

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