Chapter 14
Applying a Technological Pedagogical Content Knowledge Framework in Ethiopian English Language Teacher Education

Berhanu Abera
Addis Ababa University, Ethiopia

ABSTRACT

Technological Pedagogical Content Knowledge (TPACK) has emerged as a useful frame for instructional technology-enhanced education. This chapter addresses the existing literature on technological pedagogical content knowledge framework and of teacher education in Ethiopia in general and English language teacher education in particular. Data were collected through a structured questionnaire, interviews, classroom observations, and documents. The results revealed that the existing literature failed to demonstrate the application of TPACK in English language teacher education in the country. The technological pedagogical content knowledge of classroom English language teachers was also found to be low. Classroom teachers applied their pedagogical content knowledge while teaching English language through televised instruction like the conventional instruction. They were seldom observed applying their technological pedagogical content knowledge. Finally, based on the results and the conceptual framework of TPACK, implications for the Ethiopian secondary school teacher preparation programs are outlined and further studies are suggested.

INTRODUCTION

There are clearly many knowledge systems that are fundamental to teaching, including knowledge of student thinking and learning, and knowledge of subject matter (Mishra and Koehler, 2006). Historically teacher education has been focused on the content knowledge while general pedagogy was an added course, treated in isolation of the content, with emphasis on general pedagogical classroom practices independent of subject matter (Jimoyiannis, 2010; Veal and MaKinster, 1999).
By the mid-1980s, the emphasis of teacher training had swung almost completely toward pedagogy, leaving content knowledge ancillary to teaching methods (Shulman, 1986). Scholars also proposed the integration of content and pedagogical knowledge in teacher training. Shulman, for instance, argues that it was not enough to teach content and pedagogy as two separate. And he proposed another competent of teacher education, the pedagogical content knowledge, which constitutes the intersection of content and pedagogical knowledge. After the use of instructional technologies in the teaching-learning process, scholars projected knowledge of technology (technological knowledge). The advocates of such type of thought claim that new technologies have changed the nature of the classroom or have the potential to do so. Technologies play a critical role in the ways of representing and formulating subject matters. Thus, knowledge of technology becomes an important aspect of overall teacher knowledge (Mishra and Koehler, 2006). It is upon this logic that the relatively new framework of technological pedagogical content knowledge (TPACK) is built, adding the new component of technology to the mix (Mishra and Koehler, 2006; Cox, 2008; Schmidt et al, 2009; Jimoyiannis, 2010).

The proponents of the TPACK framework argue that effective technology integration for teaching specific content or subject matter requires understanding and negotiating the relationships between three components: technology, pedagogy, and content. The framework incorporates the relationships and the complexities between all these three basic components of knowledge. TPACK does not consider these three key elements in isolation, but rather in the complex relationships in the system they define, as Jimoyiannis (2010) asserts. At the intersection of the three knowledge types, seven components are included in the TPACK framework as illustrated underneath.

As illustrated in the figure, the three circles (content, pedagogy and technology) overlap to lead to four more kinds of interrelated knowledge. Three areas of knowledge constitute the core of this framework. Even though TPACK framework recognizes the intersection of these three constitutional elements of contemporary learning environments, it goes beyond seeing these three knowledge bases in isolation. It emphasizes the connections and the complex relationships between those dimensions of knowledge (constitutional elements) while it defines three new areas of knowledge, namely Pedagogical Content Knowledge (PCK), Technological Content Knowledge (TCK) and Technological Pedagogical Knowledge (TPK). All these form the conceptual framework of Technological Pedagogical Content Knowledge (TPACK), and considered within a particular contextual framework (Mishra and Koehler, 2006; Cox, 2008; Schmidt et al, 2009; Jimoyiannis, 2010).

As far as literature and research works in Ethiopian teacher education are concerned, content knowledge as well as pedagogical knowledge was given due attention during the introduction of western-type teacher education. In line with this, Tesfaye (2008) mentions that at the beginning of teacher education in Ethiopia, content and pedagogy courses were offered simultaneously. The 1994 Education and Training Policy of Ethiopia also declares, “Teacher education and training components will emphasize basic knowledge professional code of ethics, methodology and practical trainings,” (TGE, 1994, p. 20). During the introduction and implementation of Teacher Education System Overhaul (TESO), the teacher education has planned to be offered uniformly in the country. In the program, pedagogical content knowledge has been given due attention. “TESO which came into existence as a reform program initiated by the Ministry of Education (MoE) in