

## Chapter 97

# A Qualitative Study on CALL Knowledge and Materials Design: Insights From Pre-Service EFL Teachers

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### ABSTRACT

*The present study investigates how academic coursework and formal learning of instructional technology and materials design help pre-service English language teachers' development of critical knowledge of CALL materials. The participants are 111 pre-service English language teachers enrolled in a TEFL programme at a Turkish University. Throughout a 14-week semester, these participants learn to design a variety of CALL materials including online teaching tools and a set of Web 2.0 tools. The article explores the skills and knowledge of pre-service teachers on the design and development of audio-visual web-based activities, through qualitative content analysis of their written reflections. The analyses of reflections on practice have revealed that these teachers demonstrate strong and critical understanding of CALL in enriching authenticity, enhancing motivation, facilitating language learning, and providing multimodal resources. They also display great awareness of instructional knowledge, in particular, in the design and interface of technology to facilitate learning.*

### 1. INTRODUCTION

Integrating technology, from the perspective of blended learning, has become an agenda in learning English since 2000 (Chapelle, 2003; Li, 2014) and as a result, language teachers all over the world are expected to use technology in teaching (Li & Walsh, 2011). However, integrating technology in language classrooms has faced many obstacles and one of the major issues is that there is evidence of language

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teachers' graduating with little or no knowledge of the use of technology in language teaching (Hubbard, 2008). As pointed out by Kessler (2006), a common approach to Computer Assisted Language Learning (CALL) in current language teacher education programmes is to concentrate on digital literacy and as such, graduates of TESOL programmes expressed general dissatisfaction with their formal CALL preparation (Li, 2017). It is clear that teacher knowledge about CALL is a core issue and how we develop teachers' knowledge about CALL rather than digital literacy is more important for effective technology use. Recent research in teacher education in CALL focuses on the development of teachers' understanding and knowledge, rather than technological competence (see e.g., the Special Issue on Teacher Education and CALL, *Language Learning and Technology*, 2015). However, there is insufficient understanding of teacher knowledge about CALL, especially how pre-service teachers construct their own knowledge in learning to use CALL in teaching.

Against this background, this paper investigates the development of CALL knowledge of language teacher candidates based on data collected during a 14-week undergraduate course in a 4-year English Language Teacher programme at a Turkish University, with a particular focus on the design and development of audio-visual web-based activities. Since developing such knowledge does require learning based on practice as well as theoretical input, the data was collected as a part of a course entitled *Instructional Technology and Materials Design*, which is offered to students in their third year at the Department of Foreign Languages, Division of English Language Teaching. The data comes from written reflections of the pre-service teachers, submitted to the lecturer at the end of the semester. It should be noted here that the reflections have not been used by the lecturer as part of the course assessment. These reflections include students' evaluation of and reflection on the instructional CALL materials they produced throughout the semester. It is believed that with the reflective writing practices, we will be able to understand how pre-service teachers understand and construct their own knowledge in using technology for language teaching, which might further influence the teacher education and development in CALL.

The aim of this paper is two-fold. First, it aims to shed light on the development of student teachers' knowledge about CALL - and in particular about the design and development of audio-visual web-based language practice materials- with a data-driven, practice oriented approach. Second, we hope to contribute to the literature of teacher education in integrating technology. Such insights and knowledge is important for the field of CALL since teacher training and development is a core element of effective CALL integration (Li, 2008). In the following section, we will present a review of literature and the theoretical basis of teacher knowledge about CALL. This will be followed by the method section, which will include information on participants, context, teaching materials, and analytic procedures. Following the findings, a discussion will be presented, including pedagogical implications and future research directions.

## **2. TEACHER KNOWLEDGE ABOUT CALL**

It is widely acknowledged that teachers are decision-makers in material choices and activities design in classrooms (Borg, 2006; Li, 2013). In terms of integrating technology in teaching, it is important to focus on developing teacher knowledge about CALL because teachers act as change agents and there is ample evidence to urge for the preparation and education of pre- and in-service language teachers to develop computer-assisted language learning in the 21st Century (e.g., Liu & Kleinsasser, 2015; Hong, 2010;

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