Chapter 41
Cloud Applications in Language Teaching: Examining Pre-Service Teachers’ Expertise, Perceptions and Integration

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ABSTRACT
This study examined pre-service teachers’ expertise, perceptions and integration of cloud applications in teaching of Arabic and English. Questionnaires and semi-structured interviews were used as data collection methods. The findings of the study specified that pre-service teachers did not own sufficient expertise for effective integration of cloud applications. The findings also revealed that participants perceived cloud applications as a valuable tool to improve many aspects of language education. Nonetheless, participants concentrated on integrating limited features of cloud applications. While the study revealed that there was no significant difference in participants’ expertise in integrating cloud applications based on the language they teach, it found that pre-service English teachers had significantly higher levels of positive perceptions and integration of cloud applications than pre-service Arabic teachers. Finally, a positive significant correlation was found between expertise, perceptions, and integration of cloud applications.

1. INTRODUCTION
A quick growth of digital and networked technologies has been witnessed in the last few years, which has drawn growing interest among educators and researchers from different disciplines. More or less of them described it as a paradigm shift that will lead to a remarkable change in teaching and learning (Jones & Sclater, 2010; Tapscott & Williams, 2010). Cloud computing is a key example of such technology. According to Mell and Grance (2011), cloud computing is an innovative model for enabling ubiquitous,
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convenient and on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be quickly provided and released with slight management effort or service provider interaction. Cloud computing trends to replace software traditionally installed on personal or campus computers with applications delivered via the internet (Sasikala & Prema, 2010). The growing popularity of cloud computing has promoted many leading IT companies to develop and provide institutions with educational cloud computing packages. The Microsoft Live@edu and Google Apps are two popular examples of clouds provided at no cost to educational institutions. Cloud applications provide a variety of resources and services that may be very useful to teachers and students such as website creation and publishing, file storing and sharing, word processing and presentation, desktop sharing, and collaboration and communication (Alshwaier, Youssef & Emam, 2012; Cahill, 2014; Erkoç & Kert, 2011; Ishtaiwa & Aburezeq, 2015).

Research literature indicated that those resources and services can be used to improve language education through promoting constructivist and collaborative learning approaches (Al Waely & Aburezeq, 2013; Denton, 2012; Ellison & Wu, 2008; Lili, 2015; Lou, Wu, Shih & Tseng, 2010). For example, Lili (2015) concluded that blogging, wiki, and podcasting as examples of cloud-based applications allow teachers to create meaningful learning activities which successfully can improve students’ language learning. More specifically, Ellison & Wu (2008) found that blogging improved students’ comprehension and writing skills.

Despite the recognition of cloud applications and their advantages in language education, the process of integrating cloud applications into teaching and learning is still ambiguous and messy. Moreover, the literature notably lacks a discussion regarding teachers’ knowledge, perceptions and their actual integration of cloud applications to support their teaching practices, especially in the Arab World. Like many other countries, the United Arab Emirates (UAE) is seeking to improve its educational system by utilizing more technological applications. As a result, the blended learning approach which combines between distance and traditional teaching and learning activities has continued to grow rapidly in most of its educational institutions. As an example is the Mohammed Bin Rashid Smart Learning Program. The Program was launched in 2012 and introduced in selected schools in the 2014-2015 academic year with the objective of full deployment in all K-12 UAE government classes by 2017. It aims to establish a distinctive learning environment in schools through the utilization of tablets and distance technologies including cloud applications to create a learning environment that supports differentiated teaching and learning and equip students with problem-solving and critical thinking abilities (Senteni, 2014).

Taking into account that pre-service teachers are future teachers who will play an important role in the success or failure of implementing the new technological applications, and given the fact that technology integration can vary based on academic context, structure, and goals (Maguire, 2006), this study was set up to examine the integration of cloud applications to support the blended learning in school language classes within the Arab context through answering the following research questions:

1. What are pre-service teachers’ perceived levels of expertise in integrating cloud applications in their language teaching?
2. What are pre-service teachers’ perceptions of integrating cloud applications into their language teaching?
3. How did pre-service teachers integrate cloud applications into their language teaching?