

## Chapter 2

# Assessing the Impact of a Digital Ecosystem to Learn English Pronunciation

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### ABSTRACT

*The present research is an innovative study that intends to analyse the effectiveness of a b-learning digital ecosystem implemented in the area of English phonetics and phonology. It also aims to highlight the benefits of some transmissive, interactive, and collaborative resources in learning of the subject. It is a quantitative research with an ex-post-facto design, collecting data through a questionnaire. The results demonstrated that pre-service teachers had positive views towards the digital ecosystem to improve their English pronunciation level and their ability to perceive and produce English more accurately. The findings also emphasized the potential of the digital ecosystem to provide a more natural environment for pronunciation practice and a more individualized instruction focused on learners who become active learners generating knowledge.*

### INTRODUCTION

Research in second language learning has used different methods in teaching pronunciation. However, it has revealed that there is a need to develop new methods and further investigate, especially teaching English pronunciation in higher education. Therefore, the study in this chapter aims to contribute to the research in the field of phonology, English as a second language and e-learning in higher education by analyzing the effectiveness of a blended learning (b-learning) digital ecosystem implemented in English Phonetics and Phonology subject, which has been traditionally taught face-to-face. The current chapter presents a project which develops a digital ecosystem, using Moodle, the open-source learning platform, to create an adequate virtual environment in which pre-service teachers will be able to improve their phonological competence in all its dimensions. The digital ecosystem was made up of 4 modules: the

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organs of speech, vowel sounds, consonant sounds, and homophones, homographs, stress, unstressed syllables, weak and strong forms of the words, and intonation. All four modules included different transmissive (podcast and videocast), interactive (online glossary and online questionnaires) and collaborative (forum) technological tools to develop the e-activities and promote interaction between the participants.

The goals of the present quantitative research were to analyse pre-service teachers' perceptions about the effectiveness of the blended learning digital ecosystem implemented in the area of English Phonetics and Phonology, and to highlight the benefits of some transmissive, interactive and collaborative tools such as podcast, videocast, online questionnaires, online glossary and forum in learning English Phonetics and Phonology. The study focused on three research questions:

1. How do pre-service teachers perceive the digital ecosystem in terms of effectiveness?
2. Do pre-service teachers believe that the digital ecosystem implemented provide a natural environment for authentic pronunciation practice?
3. Do pre-service teachers perceive that the digital ecosystem supports individual and collaborative learning throughout technological tools?

The study also tried to test three hypotheses (H):

- H1.** English pronunciation learning level and the satisfaction of pre-service teachers will be higher with the implementation of the blended learning digital ecosystem.
- H2.** The digital ecosystem implemented will help pre-service teachers to develop their ability to perceive and produce English more accurately.
- H3.** The digital ecosystem will supply pre-service teachers with a natural environment for pronunciation practice.

## **BACKGROUND**

### **Teaching Second Language**

Throughout the history of teaching English as second language (L2), reserachers adopted varied methods for teaching pronunciation. As Levis (2005) points out, "the history of pronunciation in English language teaching is a study in extremes. Some approaches to teaching, such as the reformed method and audiolingualism, elevated pronunciation to a pinnacle of importance, while other approaches, such as the cognitive movement and early communicative language teaching, mostly ignored pronunciation" (p.369).

As Larsen-Freeman, 2003, Larsen-Freeman and Long, 1994, and Sánchez, (1997) stated, in the beginning, teaching second language was basically through the memorization of grammar rules and vocabulary lists. That intended to enable learners to read texts, make translations and use the L2 to communicate in written form. Besides, teachers used students' mother tongue in their lesson predominantly, so there was no oral exposure to the L2 and, of course, no interest in pronunciation (Santos, 1999).

The direct method emerged to reject all the principles on which the previous method was based and became the first approach focusing mainly on oral skills. That directly implied the improvement of oral skills and the emphasis on the correct pronunciation (Pastor, 2005). It emerged from a project carried out by the German linguist and the founder of the Berlitz Language Schools, Maximilian Berlitz (1852-

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