

## Chapter 3

# Assessing Language Learning in Technology-Enhanced Environments

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### ABSTRACT

*Modern language classrooms need to be modified to adapt to the rapidly-enhanced technological innovations in terms of designing, planning, teaching, and assessing. In line with the growing trend and interest in exploring the internet, technology-based tools, and environments for assessment purposes of foreign language learning, this chapter takes a critical look at language assessment through ICT by addressing the research gap in the field and discussing through a non-systematic review of related research. In addition, innovative digital language assessment tools are presented, and related research questions are answered in relation to, especially a language skill, speaking. The current chapter aims to shed light on how ICT, technology-enhanced environments, and innovative digital tools can be used for language assessment.*

### INTRODUCTION

Technology in language assessment was introduced in the 1960s with the aim of making the testing process more effective (Chapelle & Voss, 2017). Some developments in language testing have been made since then, and these developments can be categorized under three themes chronologically. The first remarkable development is computer-adaptive testing that enables administering an interactive testing to each test takers during the assessment process (Chapelle & Voss, 2017). This type of testing refers to both research and practice that use of technology to monitor and reflect students' or test takers' performance and skills based on an algorithm set up by the test developer (see Chalhoub-Deville, 1999). The second theme is effective technology use in testing which is provided by automated writing evaluation (AWE) that decreases the intensive work of evaluation such as assessing students' essays. The third theme is

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efficiency- oriented research that focuses on comparison of score meaning for computer enhanced tests and others' scoring (Chapelle & Voss, 2017). It is clear that various terms are used to refer computer-based language assessment such as computer-adaptive, computer-aided, computer-assisted, computer-enhanced, computer-mediated, computer-supported, and technology-enhanced. However, all these terms suggest that computer has a supporter, mediator or peripheral role in language assessment (Yu & Zhang, 2017). The main problem is that computers shouldn't be perceived as a delivery program by assessors and educators. On the contrary, it is quite necessary that they must consider computer as an integral part of language assessment (Yu & Zhang, 2017). The current chapter aims to shed light on how ICT, technology-enhanced environments, and innovative digital tools can be used for language assessment.

Considering this, the current chapter draws attention to the research gap which occurs in the role of computers in language assessments. Some studies (Mullamaa, 2010; Salehi & Salehi, 2012; Teo, 2012; Wang, 2005) have focused on ICT and its integration in both language learning, teaching and assessment but there is lack of discussing ICT based assessment approaches and these approaches' administration with necessary digital tools. Therefore, this chapter aims to conduct a non-systematic review of the related literature and explore the studies which have been carried out related with ICT and assessment in recent years, current digital tools, websites and applications and future research suggestions of the issue. It also intends to answer the following research questions based on the review:

1. What are the positive and negative sides of technology integration in language assessment?
2. What does related literature suggest on technology integration in language assessment and what are the future research directions for types of language assessment?
3. What ICT tools can be implemented for language assessment?

## **BACKGROUND**

Salmon (2002) indicates that we need to focus on technology's contributions to pedagogy and pedagogy's needs in general instead of focusing on what it can do for us. As one of the most significant areas of pedagogy, assessment has evolved with the technology. Thus, technology can make possible the representation of models, systems or domains and its manipulation and modifications. This is only thanks to having developed these tools in the past (Pellegrino & Quellmalz, 2010). Although early technological implementations in large-scale testing were comparatively simple, efficient and low-cost (Bennett, 2008; Quellmalz, & Pellegrino, 2009), the boundaries of evaluating complicated learning types are being pushed by a new generation of formative assessments.

The computer's capacity to capture student input enables users to gather proof of procedures like problem-solving sequences and strategy use. If learning and related materials become digital, the evaluation will also have to follow this path so that the learning mode and the evaluation mode match (Russell & Haney, 2000). However, if all multiple-choice tests are put on a computer, sufficient progress will not be made on how technology is used for training in schools. Sadly, there has been little progress in using the evaluation machine. Educators shifted the first major educational tests to the computer almost ten years ago and intended to utilize the technology to introduce new methods of measurement. These efforts went no further due to the adaptability, cost, technical unpredictability, need to preserve the scope of the decision-making, and adequacy of multiple choices (Schmidt, 2002a). Good assessment and evaluation should engage students with the assessment criteria. Assessment should support and enhance personal-

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