Chapter 7
Reliability of Digital Formative Assessment Practices and Instruments: Theoretical Review Towards an Assessment Proposal

Tiago da Silva Carvalho
University of Aveiro, Portugal

Pedro Almeida
https://orcid.org/0000-0001-5878-3317
University of Aveiro, Portugal

Ana Balula
https://orcid.org/0000-0001-8287-258X
University of Aveiro, Portugal

ABSTRACT

The rise of enthusiasts in mobile-assisted language learning (MALL), benefiting from well-established benefits of consuming audiovisual content for autonomous learning, has proliferated during the last decade. Simultaneously, there is constant debate about how reliable digital evaluation systems are, and therefore, what are the best instruments/practices to assess language learning remotely? After contextualizing the motivation for this research, this chapter will provide a rundown of state of the art related to digital learning assessment, with a particular focus on online formative assessment practices and adaptive learning systems, as well as contexts they were implemented. The purpose is to identify valid practices, pinpointing strengths and weaknesses and ending with an assessment instrument proposal for an online collaborative platform (OCP), in which learners—either autonomously, or supported by their EFL teachers—follow steps to get certification in a given communicative skill, by the consuming, mapping, producing, and uploading audiovisual content.

DOI: 10.4018/978-1-7998-4769-4.ch007

INTRODUCTION

Formative assessment practices, as theorized by Boud (2007), generate a set of evaluation practices that have the potential to be beneficial for learners who choose digital formal education paths. From this author's work one can infer that reliable formative assessment initiatives, and by extent to a more current educational context, Digital Formative Assessment (DFA) practices should be grounded on two axes:

1. to assess the functional skills – i.e., the skills that learners will use in their working and personal lives (real-life situations);
2. to assess the theoretical skills – i.e., the knowledge of grammar, pronunciation, or vocabulary.

In both types of skills, presential and distance learning courses should conceive a clear set of goals for their prospective learners, and an assessment process on the learners' products to assess if, after all, learning took place. However, and focusing more on the digital paradigm, a useful formative e-learning course also needs to lay focus on the evolution of the learners, namely by creating mechanisms for teachers, tutors, peers, and learners themselves to assess their work as the course develops. In other words, and using the example of English as Foreign Language (EFL) learning, the goal of the course should be to achieve a C1 language proficiency level[1], but there needs to be different learning paths available to learners who start their learning at an A1 level and to learners who begin at an A2 level.

The heterogenity of learners is indeed at the heart of DFA. To clarify this concept, one can firstly look at the definition of formative assessment given by Black and William (1998:82): "*all those activities undertaken by teachers, and/or by their students, which provide information to be used as feedback to modify the teaching and learning activities in which they are engaged.*" Therefore, formative assessment practices are a set of activities that provide both teachers and learners with information regarding:

i. how to establish clear learning targets;
ii. how to give feedback about progress toward meeting learning targets;
iii. how to attribute student success and mastery to moderate effort;
iv. how to encourage student self-assessment, and;
v. how to help students set attainable goals for improvement[2].

The addition of the pre-modifier *"digital"* is directing the formative assessment to the online environments, in which Computer Assisted Language Learning is one of the research fields in which this chapter is working on.

Motivation for This Chapter

The motivation for the focus on DFA arose from data gathered during an experimental phase of a doctoral research project in Multimedia in Education entitled *Matrix for mapping the educational potential of audiovisual content in learning English*, which was defended on May 26th 2020[3]. The theoretical background of this research project attempted to provide a reliable basis to unite published knowledge in three fields: