Chapter 1
Assessment of Information Literacy and Its Relationship With Learning Outcomes

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ABSTRACT

The global integration of competence-based education and training systems and the search for a generalized common framework for the incorporation of key competences in the curriculums of national education systems have generated a growing need for information literacy as a way of advancing to the awaited knowledge society. Large-scale assessments of student performance present criterion variables such as language, mathematics, or science, but it is noticeable how these assessments leave aside contents from other key competences such as information literacy. This chapter shows a theoretical approach to the subject and an example of an empirical study that aims to shed some light to the topic of information literacy by analysing the relationship between the level of information literacy shown by a student and their academic performance in subjects such as language and mathematics. The results suggest that it is possible to develop an instrument for the assessment of the complex information literacy competence, and which is also easy to administer in the classroom.

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INTRODUCTION

Our current society is shaped by the use of Information and Communication Technologies (Castells, 1999), and citizens strive to move from an Information Society to a Knowledge Society (Area Moreira, 2001; Cassity & Ang, 2006; Cebrián Herreros, 2009; García Peñalvo, 2014; Valimaa & Hoffman, 2008). Within this framework, new educational needs arise in all sectors of society, and these needs are mainly related to the adaptation and utilization of this new environment rich in information (Diehm & Lupton, 2012; Grizzle, Wilson, & UNESCO, 2011; Pinto Molina, Cordón, & Díaz, 2010; Price, Becker, Clark, & Collins, 2011), aiming to put up barriers to the so-called information overload or infoglut (Jarson & Taub-Pervizpour, 2015; Levitin, 2014; Zelder, 2009).

These emerging skills and knowledge related to the handling and treatment of information, especially in the digital field, are initially referred to within the field of information science (specifically the area of library science) as ‘Information Literacy’ (ALA/ACRL, 2000; Andretta, 2007; Bruce, 1997; Bundy, 1998). In the first few years of the new millennium, in which the development of the concept thrived, information literacy is understood as the set of key competences that every citizen must acquire in order to properly handle themselves within the information society, and it is emphasized that the experts in charge of its transmission and development should be librarians and information professionals. However, the limitations and determinants of the concept of literacy in the field of education, along with the significance that digital competences and information literacy have achieved in a few years, lead to a reconceptualization of the term, which starts to be known in the field of Educational Sciences as ‘Information Skills’ (Area Moreira, 2010; Bielba Calvo, Martínez-Abad, & Herrera García, 2014; García-Peñalvo, 2017; Martínez Abad, Olmos Migueláñez, & Rodríguez Conde, 2015; Rodríguez Conde, Olmos Migueláñez, & Martínez Abad, 2013). Thus, the name information skills provides the state of the art with a more educational, specific and definite approach to the term, overcoming the difficulties and biases related to the term ‘literacy’ (Cope & Kalantzis, 2009; Freire, 1981; Freire & Macedo, 1987; Lankshear & Knobel, 2008; Wagner, 1998).

The global integration of information systems based on competences (Delors, 1996; Halász & Michel, 2011) and the generalization of a common framework on key competences in the curricula of the education systems of different countries (Official Journal of the European Union, 2006), have facilitated the study and development of information skills as a proper key (and transversal) competence which has been embedded within the principles of basic education. However, if we dig deeper into the need for the development of this competence, we encounter the general problem that teachers, who are experts in developing educational programs based on objectives and contents rather than competences, are not trained in the key competences themselves. Moreover, they do not always have the appropriate knowledge and skills to develop teaching-learning processes based on competences, as well as to assess the level student achievement regarding these key competences. This is the reason behind the important efforts that are being made on an institutional level to clearly define the indicators, learning outcomes and assessment criteria related to the key competences, and specifically, information skills (Ferrari, 2013; Grizzle et al., 2011; UNESCO, 2015).

Under the assumptions made above, it becomes apparent that there is a need to develop and implement tools to facilitate the work of teachers regarding the objective assessment of key competences, specifically information skills, and, ultimately, whether high levels of information skills achievement among basic education students are related to better academic performances, which is the object of study of the present chapter.
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