Chapter 3
Distance Learning:
A Bibliometric-Based Review

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ABSTRACT

This chapter analyzes the main contribution to the field of distance learning and pedagogy based on bibliometric analysis. Series of bibliometric tools have been used, including citations and h-index. Additionally, VOSViewer software was used to identify maps that show the most relevant trends, and Excel was used to develop charts and graphs. The analysis includes scientific articles, journals, authors, institutions, and countries. Results show that the United States has been the leader in the number of published works, citations, and institutions involved. Nevertheless, other countries in Europe, Asia, and Oceania have dedicated significant efforts to distance learning, including the UK, Brazil, Spain, Australia, and China. Other relevant results show that nearly 60% of all articles have been published in the last decade. The period between 2000 and 2009 are the years with the highest number of citations. This discipline has a high potential of continuing to develop, specifically in uncertain environments that are highly globalized and competitive.

INTRODUCTION

Surprisingly enough, the concept of distance learning (DL) goes back to late 1600 and early 1700 alongside the development and expansion of postal systems (García, 1999; Villalonga, 2016). Its growth has been directly connected to the technologies available at different moments in time. The first distant courses in the modern sense were developed between 1970 and 1989 when the International Council for Correspondence XIX started using the term distance (Coldeway, 1982; Baath, 1978; Jardines, 2009).

Initially, DL was based on correspondence, while in recent years, distant courses are supported on internet technologies for its development, and access (Jardines, 2009).

In the last few decades, DL has consolidated as an alternative to 'face to face' or F2F education (Aretio, 2001). Distance learning has become one of the most researched topics in pedagogy due to the success and development of information and communication technologies (Falcón, 2015). Distance learning is continuously growing in terms of its use and application, especially in higher education and adult learning programs (Jardines, 2009). In developed countries, most educational institutions have a permanent offering of DL programs (Villalonga, 2016).

DL has frequently been associated with distance education. Specific authors suggest that there are two distinct things (King, Young, Drivere-Richmond & Schrader, 2004), while others state that both terms can be used interchangeably (Sherry, 1995). Nevertheless, since the objective of this book is focused specifically on the reliability of online assessment and DL, the selected topic of the bibliometric analysis centered on that specific notion.

DL can be described as a planned teaching and learning experience that uses a broad spectrum of technologies to reach learners at a distance and is designed to encourage learning interaction (Greenberg, 1998). Courses and support are supplied by various distance media (Simpson, 2018) without regular face to face contact in the classroom (Rasheed, 2020). Instructors and students are physically apart and distanced by time or place and rely on technology (Almarashdeh & Alsmadi, 2016). Over the past decades, DL has gained increased attention (Kabassi & Alepis, 2019), becoming a pervasive and growing phenomenon. It has helped increase the use of information and communication technologies in education (Markova et al., 2017), keeping students connected while enjoying the flexibility e-learning provides (Watts, 2017), including the use of virtual classrooms (Porter, 1997).

Notwithstanding, DL can be understood as the use of specific pedagogical techniques, resources, and communication mediums to facilitate learning and education between students and teachers separated by time and distance (UNESCO, 2002; Hayden Levin & Thompson, 2007). Furthermore, DL provides flexibility in terms of access and study program offerings. The techniques, resources, and communication means are dependent upon factors such as the course, the needs, and context of the student, the competence and experience of the professors, instruction objectives, available technologies, and institutional capabilities (UNESCO, 2002). The concepts that most often appear as differentiating traits of DL are the separation between the teacher and the learner; the systematic use of technology and technical resources; the individual learning; the support of a tutor, and bidirectional communication (García, 1987; Teaster & Bliezner, 1999; Valentine, 2002).

In fact, according to Valentine (2002), DL has been around for well over 100 years. One of the earlier forms of DL was done through correspondence courses started in Europe. The evolution of DL is closely connected to the development of new technologies, including the radio, television, and personal computer. As technology has changed, so has the definition of DL. Videotaped lectures and audiotapes have been part of DL programs, and most recently, the Internet and compressed video have taken DL in new directions, such as live video instruction.

By 2006, 89% of 4-year public colleges in the US, and 60% of private institutions offered online classes (Gensler, 2014). Shockley (2012) claims that DL is a social, collaborative, personalized, and interactive experience that generates two powerful, mutually reinforcing success accelerants. First, the long-term desire to learn and better one's position in the world; and, secondly -crucially- the moment-by-moment pleasure of participating in a learning experience that's continually exciting, rewarding, and creates a valuable sense of social connection.

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