A Thematic Review of Blended Learning in Higher Education

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ABSTRACT
This article reviews the international literature on blended learning in view of establishing its thematic trends in higher education. The systematic review through PRISMA, sought to answer three research questions: First, how have publications evolved from 2000 to 2016 in blended learning in higher education? Secondly, what themes are frequently published in blended learning since 2000 to 2016? Thirdly, what are the emerging sub-themes in the blended learning publications in higher education? A thematic result is presented indicating major trends (in order of frequency: highest to lowest) in the Instructional design, Disposition, Exploration, Learner Outcomes, Comparison, Technology, Interactions, Professional Development, Demographic, and Others. The authors are of the view that this article contributes to the understanding and knowledge of the current research trends in blended learning and ascertains that much has to be done in terms of Blended Learning frameworks.

KEYWORDS
Blended Learning, Blended Learning Framework, Collaborative Web Technologies, Higher Education

INTRODUCTION
Blended learning (BL) has been defined as a combination of Face-to-Face and Online Learning instructional models (Graham, Woodfield, & Harrison, 2013). In view of the combination, BL is said to offset the disadvantages of face-to-face and that of an online learning model. Given the advancements in web technology (Cassidy, Colmenares, Jones, Manolovitz, Shen, & Vieira, 2014), BL is commonly becoming one of the instructional models used in Higher Education Institutions (HEIs) (Halverson, Graham, Spring, Drysdale, & Henrie 2014). As a result, BL provides, for example, advantages such as: (1) enhanced effective communication between trainers and learners; (2) enhanced effective collaboration among students; (3) enhanced student-centred generation of new knowledge and engagement; (4) enhanced flexible learning and teaching; and, (5) an appropriate mix of technologies and learning processes (Garrison and Kanuka 2004; Garrison and Vaughan 2008; Chew 2009; Köse 2010; Graham, Woodfield & Harrison 2013). Notwithstanding the available publications on Blended Learning (BL) in higher education, it is worth noting that little has been established in terms of their trends and future research. Likewise, little is known about the percentage of the publications in BL that cover BL frameworks for higher education contexts. The higher education context, as used in this article, refers to the unique characteristics in the way learners perceive and process information. Echoing Samover, Porter and McDaniel (2009), contextually, there is much to be anticipated in the
relationship between culture and learning styles; putting forward a claim that the strong link between culture and learning reflects how people prefer to learn and process information (Samover, Porter and McDaniel, 2009, p. 338).

A closer look at the literature in BL reveals a number of studies which carried out reviews in BL. Notably, a review carried out to analyze high impact scholarship and publication trends in blended learning (Halverson, Graham, Spring & Drysdale, 2012). Markedly, the study used two research questions: “Where are the conversations about blended learning occurring? And, what is the most impactful scholarship in the field of blended learning as measured by citations?” The review used Harzing’s Publish or Perish software program (Harzing, 2011) to search for the 50 most frequently cited articles; the 25 most frequently cited book chapters; the 10 most frequently cited books; the most cited authors; the journals publishing the most cited articles; and the contexts of BL being studied. On the basis of the findings, the review (Halverson, Graham, Spring & Drysdale 2012) provided an understanding of where BL publications could be found and the major authors and publishers.

Similarly, another review study was carried out on a thematic analysis of the most highly cited scholarship in the first decade of blended learning research (Halverson, Graham, Spring, Drysdale & Henrie, 2014). The review included publications from 2002 to 2011 in a systematic review in which ten major themes in BL research were found. Furthermore, the review revealed methods, research questions, theoretical frameworks, and implications in published BL. This paper builds on the previous studies to inform the scholars on the current trends of BL in higher education.

Along similar lines, Drysdale, Graham, Spring and Halverson (2013) carried out a systematic review to analyse research trends in dissertations and theses studying BL. In essence, there were more studies in K-12 research and a concentration of the studies were at course level in higher education. From their findings, an emphasis was put forward to the need for more contributions unique to BL contexts (Drysdale, Graham, Spring & Halverson, 2013).

This paper is a timely contribution in reviewing trends and application of BL in HEIs. The underlying argument, in favour of considerations to the uniqueness of BL is that, culture and learning reflects how people prefer to learn and process information (Samover, Porter and McDaniel 2009, p. 338). This line of reasoning is supported and further expanded in that faculty and learner’s creativity, inquiry habits, enthusiasm, and application of knowledge are highly shaped by their cultural practices (Somprach, Prasertcharoensuk, & Ngang, 2015). Equally important, Schalkwyk, Leibowitz, Herman and Farmer (2015) affirm that learning habits are influenced by cultural experiences. Based on the evidence available, it seems fair to suggest that the efforts and needs to preserve the culture of learners deserve upholding, and should be reflected in the learning process in all HEIs. In this article, we identify 395 and analyse over 210 publications (articles, dissertations, theses, and patents) written from 2000 to 2016. This analysis looks at theory development, methods, themes, and gaps in blended learning.

**METHODOLOGY**

In the present study, we used ProQuest, Scopus, and EThOS for dissertations and theses; Harzing’s Publish or Perish software (Harzing, 2015) program to get lists and links to articles matching the search phrase; and individual searches from different databases such as EBSCO, Emerald, ScienceDirect, Web of Science, IEEE Xplore, and SAGE Journals. Other sources used included Google Scholar and the Research Gate network. This is an extended approach to previous studies which confined the search to dissertations and theses only (Halverson, Graham, Spring, Drysdale & Henrie, 2014; Drysdale, Graham, Spring, & Halverson, 2013). The current study expands the sources and search strategies as indicated above.
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