# Chapter 13 Blended Learning for PreService Teachers

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#### **ABSTRACT**

Blended learning is a pedagogical approach that has been used in many universities worldwide for the past 30 years, thanks in part to the introduction of the internet. During Covid-19, it was a pedagogical approach that was used extensively to support the teaching and learning of pre-service teachers. The focus of this chapter is to explore some of those practices along with some of the theoretical frameworks that underpin the use of blended learning. Other aspects that are covered include the benefits and challenges of a blended learning approach examining the role of tutors and students' views. The technologies that are used to support blended learning are investigated with some suggestions for future research.

#### INTRODUCTION

Blended learning is a popular pedagogical strategy that is currently being used in universities to support pre-service teachers. Blended learning was adopted in universities in the 1990s and became one of the most accepted pedagogical forms at the beginning of the 2000s (Edward et al., 2018). During COVID-19, it became one of the preferred models of teaching (Mali & Lim, 2021) along with online learning. It is therefore important that future learning environments should encompass a blended learning environment that combines traditional face-to-face teaching with technological tools and online learning (Cobo-Rendón, 2022). This is because, as noted by noted by Garner and Rouse (2016): "Higher education is no longer defined by the tangible boundaries of a "physical campus" but by the entire student experience, whether that involves attending face-to-face classes or navigating online information" (p. 27).

As noted by Tshabalala et al. (2014), there is no single commonly accepted definition of blended learning and practitioners need to negotiate their own meaning based on issues relating to contexts of practice. This notion is supported by Garrison and Kanuka (2004), who contend that a blended learning environment represents a "fundamental reconceptualization and reorganization of the teaching and learning dynamic, starting with various specific contextual needs and contingencies (e.g., discipline,

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developmental level, and resources). In this respect, no two blended learning designs are identical" (p. 97). One aspect that should be present, according to Allen et al. (2007), is that blended learning should feature between 30% and 70% of the course content delivered online. An important consideration is that learning needs to be more than just passive for students (Chickering & Gamson, 1987). It should be active and have a focus on creating, whilst providing opportunities for students to discuss, debate, problem-solve, and inquire (Nerantzi, 2020). These factors need to be considered in both the face-to-face and online components in a blended learning environment.

Blended learning is considered by some authors as synonymous with hybrid learning (Bryan & Volchenkova, 2016, p. 25). However, in this chapter, blended learning is viewed as different from hybrid learning where synchronous live sessions are conducted with some participants present in a face-to-face mode and others present in an online mode simultaneously (Maher, 2022). With a blended learning model, where sessions operate in a face-to-face setting or in an online mode, the use of online resources, such as audio/video lectures, handouts, articles, and power point presentations can be made accessible anytime anywhere via Learning Management System (LMS) or similar systems (Perveen, 2016).

The purpose of this chapter is to investigate some aspects of blended learning, including theories that underpin its use, examination of different models, examples of practice, benefits and challenges, pedagogical implications, and student views. Also included is a focus on technologies that support blended learning. Much of this chapter focuses on pre-service teachers. Where the literature draws on university students in general, the findings can be applied to PSTs.

#### **BLENDED LEARNING MODELS**

Some of the models and frameworks that have been employed to understand how blended learning can support learning include the Community of Inquiry (CoI) Framework, the Technology Acceptance Model (TAM) and Sociocultural theory. A model that is used to support teaching, known as the station rotation model, is also investigated in this section.

One well-known model is the Community of Inquiry (CoI) Framework, developed by Garrison et al. (2000). This model incorporates three elements including the cognitive, teaching, and social. Cognitive Presence is defined as the "extent to which the participants in any particular configuration of a Community of Inquiry are able to construct meaning through sustained communication" (Garrison et al., 2000, p. 89). Teaching Presence consists of two main elements constructed by the teacher. The first is the design of the educational experience, including the selection, organisation, and presentation of the course content. The second element involves facilitation "for the purpose of constructing meaningful and worthwhile knowledge" (Garrison et al., p. 92). Social Presence is defined as "the ability of participants in the Community of Inquiry to project their personal characteristics into the community, thereby presenting themselves to the participants as real people" (Garrison et al., p. 89).

Social presence is important in a blended learning environment, particularly where students pursue a teaching qualification leading to a career that is based on social interactions and relationships (Garner and Rouse, 2016). A number of authors have compared online subjects to blended subjects. Akyol et al. (2009) for example, found that the level of group cohesion in blended courses was significantly higher than the level of group cohesion in online courses. Izmirli and Izmirli (2019) found blended learning helped to increase interaction among participants, because they were familiar with one other. The social

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