Blended Learning and Teacher Preparation Programs

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ABSTRACT

Blended learning is increasingly being adopted at all levels of the educational system. It continues to gain primacy in the teaching and learning environment as both students and teachers seek to integrate familiar information communication technology (ICT) into their classroom activities. Additionally, it allows the teacher, as a facilitator of learning, and the learner, the opportunities of working in both the face-to-face and online environments. This paper provides a basic review of blended learning and some ways it may be used in teacher preparation programs to support the effective integration of ICT within the classroom environment.

INTRODUCTION

Increasingly, variations of blended learning are being adopted at all levels of the education system, as instructors explore different ways to facilitate learning, and learners become more engaged in the process within a media rich environment. This learning approach is recognized in teacher preparation programs as an effective way of ensuring a greater level of facility with the integration of information communication technology (ICT) across the curriculum. It also serves as a comfortable way to help pre-service and in-service teachers, as they learn in a non-threatening manner how to integrate technology within the digital environment.

Blended learning (also referred to as hybrid or flexible learning) has long been used in the classroom in multiple ways. The ever-increasing use of information technology has created renewed interest (Duhaney, 2004; Vaughan, 2007) in this evolving concept (Qwston, Wideman, & Murphy, 2008; Graham, Allan, & Ure, 2005; Oliver & Trigwell, 2005; Whitelock & Jelfs, 2003). Blended learning is considered to be any combination of methods, strategies, or modes used for teaching and learning. For example, the use of the traditional face-to-face approach in combination with some form of technology, either synchronously or asynchronously would be considered "Blended" Learning (Duhaney,
Qwston, Wideman, and Murphy (2008) describe blended learning as a combination of face-to-face experiences in which learners are co-located with online experiences, although not all learners are at the same location. Many classes in higher education and at other levels of the education system are using some form of a blended learning approach. Students often engage in online activities – participating in threaded discussions, accessing electronic reading materials, and submitting completed assignments by using some course management tool or other Internet resources (e.g., BlackBoard, Moodle, blogs, wikis, etc.). Ross and Gage (2006) identify three different forms of blended learning in higher education: (a) Web-supplemented or technology-enhanced wherein the course is supplemented with online components; (b) hybrid or reduced face time which replaces some of the face-to-face component with online learning activities; (c) and blended programs that offer students the flexibility to select traditional face-to-face classes, blended classes, or classes offered totally online.

Garrison and Vaughan (2008) posit that the fundamental belief of blended learning is that face-to-face oral communication and online written communication can be optimally integrated, thus facilitating a blending of the strengths of both areas into a unique learning experience congruent with the context and intended educational purpose. In addition to the online written communication component, everyone engaging in blended learning can maximize the use of other appropriate digital elements, e.g., audio, video, etc., many of which are now easily accessible via the Internet. To effectively facilitate the use of blended learning, however, Garrison and Vaughn (2008) believe that these key design assumptions must be considered: (a) the thoughtful integration of face-to-face and online learning; (b) fundamentally rethinking the course design to optimize student engagement; and (c) restructuring and replacing traditional class contact hours. Facilitating the flexibility now needed in the learning environment can help reshape teacher preparation programs to better assist teachers to be more effective in the classroom. Vaughan (2007) observes that the result of the combination of the online and face-to-face classroom components is, potentially, an educational environment highly conducive to student learning. Within this blended learning environment, the teacher must be more collaborative in order to facilitate a greater level of engagement by students in the teaching and learning process.

TEACHER PREPARATION AND BLENDED LEARNING

As the use of information communication technology (ICT) becomes a significant part of our daily existence, blended learning can be considered an ideal approach to help in ensuring that teachers and students are not only exposed to ICT, but are able to explore how they may collaboratively use it in teaching and learning while accommodating individual learning styles. Dziuban, Hartman, Juge, Moskal, and Sorg (2006) indicate that the blended learning format coalesces Web-based and face-to-face instruction that holds the potential to transform both teaching and learning. This transformation is vital because of the extensive use of technology throughout society and the need to rethink the way we teach and learn.

A considerable number of the students who now populate our classrooms in higher education are widely described as the Net Generation, "the first generation to be bathed in bits," according to Tapscott (2009, p. 17). These students assimilate technology, having grown up in a period when it is recognized as a part of the environment (Tapscott, 2009). Presnky (2001) describes them using the metaphor, "digital natives." Garrison and
Vaughan (2008) observe that the *Net Generation* is able to move easily between face-to-face and online experiences. In citing a Kvavik and Caruso survey of 2005, Garrison and Vaughan (2008) note that the *Net Generation* wanted technology to add convenience and connection, but only had a moderate preference for it as they valued human interaction and were concerned that technology would reduce communication with their instructors and peers. Consequently, the use of the blended approach helps to provide the convenience and connection desired during teaching and learning while ensuring that participants will be able to interact with their instructors and peers.

Teachers/professors must accommodate technology (Tapscott, 2009). Prensky (2001) refers to these persons with the metaphor, "digital immigrants." They continue to learn and adapt to an environment in which the use of different technologies is a normal way of life. Prensky (2009), however, believes that everyone has now become familiar with the digital era and that the "digital natives" and "digital immigrant" distinctions are no longer relevant. He believes that consideration should now be given to a completely new concept - "digital wisdom". He regards this as twofold – the wisdom arising from the use of digital technology to access the use of cognitive power beyond our innate capacity and wisdom in the prudent use of technology to enhance our capabilities. This, therefore, warrants a change in how we prepare teachers to use technology to facilitate teaching and learning among students, many of whom are already adept at using a variety of technologies.

The instruction and orientation in many teacher preparation programs are still geared toward those who must accommodate technology (Tapscott, 2009), even though many teacher candidates, and the students whom they will teach, can be counted among the *Net Generation*. Teachers and students are no longer comfortable with learning in a passive setting that is still largely text-based and heavily dependent on the lecture format – the foundation of the traditional classroom. Teacher candidates and students, with their vast exposure to a variety of technologies, desire an interactive or collaborative learning setting. The blended learning approach, if planned and implemented well, can establish a student-centered environment that will provide opportunities for more collaboration among teacher candidates/students and their peers, and between instructor and teacher candidates/students as they actively engage in learning. This approach serves the purposes of ensuring connectivity, interaction, the capacity to engage with the instructional material, and how students learn best while allowing for actual communication with peers and instructors.

Students principally like the blended learning for its flexibility. With blended learning, students believe that they have more control over the pacing of the course and where they wish to engage in their learning. Faculty who have used the blended approach have expressed their satisfaction with (a) the enhanced interaction that this format allows with students, (b) the increased student engagement, and (c) the flexibility which this environment affords along with the opportunities for continuous improvement (Vaughan, 2007). Fostering this type of environment during teacher preparation makes teacher candidates more likely to use a variety of technologies and learn how to facilitate a learning environment in which students become more actively engaged in learning using the support of the technology tools with which they are familiar.

The emergence of Web 2.0, which is also referred to as the living or active web, the Hypernet, or read write web (Tapscott, 2009), is ideal for use with the blended learning approach. The interactive nature of Web 2.0 – blogs, wikis, podcasts, virtual worlds, etc. – can result in the type of collaboration, which is significant in facilitating a dynamic and vibrant learning environment. According to Solomon and Schrum (2007), Web 2.0 allows a number of users to participate by editing, commenting, and improving a document collaboratively rather than working alone. This is regarded as critical for both
teacher candidates and students.

Teacher preparation programs, therefore, will need to help teacher candidates learn how they may integrate the Web 2.0 tools in teaching and learning. Although many may be quite fluent in using these tools they may not necessarily know how to use them effectively and efficiently for teaching and learning. As Thomas (2011) indicates, students most often use these tools in their social lives for communication purposes and rarely in educational contexts. The students perceive a conflict with the use of Web 2.0 technologies in their social and educational lives, and would like them to remain separate rather than intertwined (Thomas, 2011).

Because of the students, and, by extension, teacher candidates' perceptions of the use of ICT, it is imperative that particular focus is given to how they are introduced to the integration of these tools in the educational setting. The blended approach might therefore be an appropriate medium to help facilitate this exposure to these tools being used in both the social and educational contexts. To help teacher candidates integrate the technology in teaching and learning, partnerships are often created with schools and school districts in which university faculty and K-12 teachers collaborate. In some cases, teacher candidates and their cooperating teachers work with and mentor elementary, middle and/or high school students, (see Serhan, 2009; Smolin, Lawless, & Radinsky, 2009; Singer & Maher, 2007; Dexter, Doering, & Riedel, 2006). These partnerships help university faculty, who prepare teacher candidates, become more conversant with the changing role of teachers, how to facilitate learning in an information communication technology (ICT) rich environment, and how to better use a blended approach in learning. Teacher candidates learn also how they can integrate technology while blending the traditional teaching practices with their use of familiar technology for teaching and learning.

BLENDED LEARNING AND CLINICAL EXPERIENCES

Clinical practices – field experiences or observations and student teaching – are critical aspects of the teacher preparation program. During these phases of the program, teacher candidates are placed in classroom settings, where they observe and/or participate in teacher, school, and classroom instructional practices. For student teaching, the teacher candidate is placed in a classroom where he/she spends time practicing teaching and learning a whole range of responsibilities which are expected of the classroom teacher. Student teaching is conducted under the guidance of university faculty, clinical faculty supervisor (often retired or veteran teachers), and cooperating or mentor teachers, in whose classrooms the activities are completed. These clinical activities provide ideal opportunities for employing a blended learning approach from which university faculty, cooperating or mentor teacher, and the teacher candidate, can benefit. They also offer opportunities for strengthening the school and university partnerships that are crucial for the success of these activities.

In many teacher preparation programs, field experiences run concurrently with courses such as curriculum and assessment and methodology, while student teaching often occurs at the end of the program. Field experiences include instructional observations, working with the mentor teacher on assessment of student learning, interviewing teachers, working with mentor teacher to plan and present lessons, attending school and/or school district events, among other activities (Reynolds & Greiner, 2006). These field experience placements occur within classrooms where the teacher candidates spend numerous hours of observation. Increasingly, the demand on schools to accommodate teacher candidates for clinical practice is presenting a challenge in securing appropriate
and adequate placements. In some schools, teachers are often reluctant to either accommodate students for fieldwork or give up their classes to teacher candidates because of test preparation, high-stakes testing pressure, and the increasing demands of teacher evaluation. Additionally, the recent calls to transform teacher preparation through clinical practice (NCATE, 2010) will result in the need for more, and possibly longer, placements. Consequently, the need for student teaching placements in schools will become more urgent.

The blended learning format can be adopted and used in enabling teacher candidates to fulfill the field experience or observation while reducing the number of hours and individuals visiting the physical classroom. The use of any readily available online videoconferencing tool (e.g., Skype, ooVoo, Elluminate) can facilitate some of the field experience or observation hours. For these observations, which would be done as a part of the university class, teacher candidates, along with their university instructor, would observe a class in session, from a distance, and then follow-up with a discussion about the lesson presented with the classroom teacher where possible (Duhaney & Young, 2011). This could also involve having small teams (2 or 3 teacher candidates) working with a classroom teacher to plan and implement a lesson which will be observed and critiqued by peers, university faculty, and the classroom teacher. A partnership established beforehand between the university and the school/school district will be extremely important in ensuring that these collaborative activities can be possible (see Simpson, 2006). The establishment of partnerships which will allow teacher candidates to be in the classroom, or be able to observe a class via videoconferencing, will be critical in ensuring adequate and appropriate clinical practice. Again, with the recent reports calling for the transformation of teacher preparation through clinical practice (NCATE, 2010), partnerships such as these will become imperative and the blended learning approach can be used to facilitate these activities.

CONCLUSION

The use of a blended learning approach that includes information communication technology (ICT) is becoming popular in classrooms at all levels. The use of ICT in teaching and learning also continues to be a major concern for teacher educators, teachers, students, and the wider community. Their integration in the teaching and learning environment will not be fully realized, however, until teacher educators make the use of these tools across the curriculum, a pivotal part of teacher preparation programs. Blended learning is an ideal approach that can be used to make this possible. By embracing the use of blended learning, teacher preparation programs help teacher candidates learn how to tap into their students' interests and familiarity with a range of information communication technology to encourage and facilitate an engaging learning environment, both virtually and physically.

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