Exploring the Potential of Blended Pedagogy

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Keywords: Blended Pedagogy.

Abstract. Nowadays, the emerging Internet commercialization and proliferation of information technology has enriched not only the teaching and learning experiences but also provided an opportunity to engage students more, and in advance to improve the education quality. Teaching delivery modes from face-to-face to online and to blended phases reflected the progress and evolution of research and practices in teaching pedagogies. As far as blended pedagogy involving both teaching and learning activities is concerned, majority of works concentrates on blending learning in the literature. Blended teaching is seldom found in the literature. Therefore, the main purpose of this paper is to explore the potential of blended pedagogy focusing on blended teaching so as provide guidance for preparing higher education teachers to design and teach blended courses. This paper draws from relevant published literatures from higher education to discuss what teachers should know about blended learning environments. Moreover, this paper suggests that effective teacher preparation for blended instruction must integrate three broad components: contextual, instructional, and technological. Each broad component is closely aligned with common instructional design processes familiar to most teachers.

Introduction

The advancements in technologies have created possibilities for innovative teaching and learning methods in higher education. These possibilities include mixing of technology-based teaching and learning with the traditional face-to-face teaching and learning strategies to maximize the usage of technology resources and human expertise for the benefit of the students. One of the commonly acceptable and simple definition of blended learning states: courses that integrate online with traditional face-to-face class activities in a planned, pedagogically valuable manner; and where a portion (institutionally defined) of face-to-face time is replaced by online activity [1]. Blended learning could be generally defined as a blending of different learning methods, techniques and resources and applying them in an interactively meaningful learning environment. ...... This approach will combine face-to-face instruction with computer-mediated instruction. ...... Students and teachers work together to improve the quality of learning and teaching, the ultimate aim of blended learning being to provide realistic practical opportunities for students and teachers to make learning independent, useful, sustainable and ever growing.[2] Another definition states: Blended learning is the thoughtful fusion of face-to-face and online learning experience. The basic principle is that the face-to-face oral communication and online written communication are optimally integrated such that the strengths of each are blended into a unique learning experience congruent with the context and intended educational purpose [3].

In recent years, blended learning has received extensive attention in school education, which has gradually become the focus of research, it is based on the computer assisted instruction, learning environment, learning style, learning space and learning process of a new learning model. Actually, blending learning is a formal education program in which a student learns at least in part through online learning, with some element of student control over time, place, path, and/or pace; at least in part in a supervised brick-and-mortar location away from home; and the modalities along each student’s learning path within a course or subject are connected to provide an integrated learning experience. As far as blended pedagogy (consists of both teaching and learning activities) is
concerned, majority of works was focus on blending learning in the literature. Blended teaching was seldom found in the literature. Therefore, the main purpose of this paper is to explore the potential of blended pedagogy focusing on blended teaching so as to provide guidance for preparing higher education teachers to design and teach blended courses.

**Blended Learning Redefined Teaching Roles**

The learning style of students has been transforming from traditional spectators to active learners.[4] Blended learning redefined teaching roles: in some situations the move to blended learning has inspired educators to redefine traditional roles. The word “facilitator” has emerged as an alternative to “teacher,” bringing with it a slightly different focus. The facilitator places an emphasis on empowering students with the skills and knowledge required to make the most of the online material and independent study time, guiding students toward the most meaningful experience possible. Facilitators focus on four key areas: (1) Development of online and offline course content; (2) Facilitation of communication with and among students, including the pedagogy of communicating content online without the contextual clues students would get in person; (3) Guiding the learning experience of individual students, and customizing material wherever possible to strengthen the learning experience; and (4) Assessment and grading, not unlike the expectations for teachers within the traditional framework.

**Suggestions Focus on Blended Teaching So As To Provide Guidance for Preparing Higher Education Teachers to Design and Teach Blended Courses**

The teachers wanting to implement blended learning will need to address at least three broad considerations that closely match common instructional design processes. Given their interrelated nature, a sound program of professional development for blended learning should fully address all three of these considerations that include:

1. Contextual considerations, such as topic and subject suitability for blending, learner challenges and available scaffolds, and models of blending that may or may not work across different instructional settings;
2. Instructional strategy and teaching considerations, such as incorporation of the right mix of student-centered and collaborative activities that are well-supported by blended learning, and educating teachers about new roles for them that are likely to arise when blending; and
3. Technology considerations related to appropriate blended modes and resources that best support a chosen instructional strategy, and to educating teachers to make such matches on the basis of pedagogy, not technology.

**Contextual Considerations**

Blended learning can refer to any of several combinations of different instructional strategies, resources, and/or delivery modes. When preparing for blended instruction, as with any class they teach, teachers must take into consideration contextual factors such as content, learners, and the learning environment in order to plan the most appropriate blends.[5]

**Topics and Subject Suitability.** Teachers naturally begin most planning with goals, objectives, and curricular mandates in mind, and preparation for blending most often will benefit from a similar focus. Teachers will first want to consider how blended elements can best be used to help learners meet specific goals and objectives. For example, chose a “conceptually challenging and content-heavy” unit to pilot in a blend so students would have more time “to study the material at their own pace and style”. On the other hand, teachers are reminded that not every topic is well-suited for an asynchronous blended environment, and that part of the design process involves identifying those elements of a course for which a traditional, face-to-face approach or a synchronous online approach may be best. For example, be caution that courses that cover technical terminology and procedures can be disorienting to students in hybrid environments and often require that students first gain adequate prior knowledge through a planned orientation process. If teachers need to support
knowledge-building and reflection on complex issues, asynchronous modes of communication may provide students with more time to think and reflect than synchronous modes, when time is limited, but if teachers need to support community-building and group discussion, synchronous modes are preferable.

**Learners, Blended Challenges, and Effective Scaffolds.** One of the key reasons why teachers and schools should consider blending is for the ability to better support different types of learners. For example, many researchers have pointed out that blended environments provide opportunities to differentiate instruction and individualize feedback for special needs and other targeted learners such as students learning a second language. Data systems that track student goals and performance over time, and drive differentiation, are increasingly part of comprehensive blended solutions. Ensuring that the blended learning environment is a supportive one for the learners often requires significant planning for orienting students to the technology tools in the learning environment and for providing appropriate scaffolding to meet each learner’s unique blended learning needs. Blended learning environments tend to include new technology tools that are likely to be unfamiliar to students, resulting in the need for teachers to incorporate student orientations, training, practice opportunities, instructions, and scaffolds. Blended learning may prove more challenging to students than traditional learning for a number of additional cognitive and developmental reasons: content may be more ill-defined and open to interpretation and diverging solutions (e.g., problems, cases); processes may be less direct than factual acquisition (e.g., inquiry, collaboration); non-classrooms modes (e.g., computer labs, online) may be farther removed from teacher or peer guidance, assistance, and support; and students may lack the academic skills and maturity to effectively manage increased student-centered or self-directed learning.

**Blended Classroom Structures and Models.** Several different models exist to blend learning, with some emphasizing more face-to-face delivery and others more online delivery. Teacher preparation for blending should include opportunities to discuss decision factors that can help teachers choose the most appropriate model, including: “course instructional goals, student characteristics, instructor experience and teaching style, discipline, developmental level, and online resources.” For example, it is discovered that, to best support their goal of international collaborations, a model that allowed teachers and students to freely choose and participate in both physical and online classrooms worked best. Setting is another decision factor to consider, since a lack of student computer technology or Internet access in the home can detract from the effectiveness of a blend, and may necessitate the choice of school-based blended models.

**Instructional Strategy and Teaching Considerations**

Blended learning can refer to a variety of different teaching models and instructional strategies. A key advantage of blended learning is the ability to mix and employ different teaching strategies, with some best implemented in the classroom and others online. Blended instructors should spend some time planning the most appropriate mix based on their learners’ experiences and capabilities, available resources, and how strengths in one strategy can be used to overcome weaknesses in another.[6]

**Appropriate Student-Centered Strategies and New Teaching Roles.** Studies show that students may be exposed to different and more varied instructional strategies through blended learning environments, particularly more student-centered strategies, interactive assignments, and notes that one of the underlying principles of flexible delivery is “learner-centered instruction.” Authentic problem-based and case-based methods are popular strategies commonly integrated in several blended environments that have been shown to have positive effects on students. The ways to ensure that the tasks students complete in a blended setting are authentic, such as by using the online medium to connect students not only to the teacher and to each other but also to groups or businesses outside of the classroom, or by moving an activity toward a multidisciplinary or interdisciplinary mode via support and information made easily available by the online setting. Blended lecture-based and problem-based methods in the same undergraduate computer networking course and found that the problem-based component led to significantly higher active learning and time on task.[7]
Fostering Interaction and Community. Blended learning is widely reported to increase: student-student interaction; student-teacher interaction and feedback; and opportunities for all learners to ask questions, express opinions, and communicate online, particularly those who find it difficult to communicate face-to-face (F2F). It is important for teachers to provide for and encourage communication outlets, as student satisfaction in blended courses has been linked to communication opportunities and interaction. It is reported that blended learning instructors commonly use wikis and discussion boards in online modes to foster collaboration, along with group work in F2F modes. In a F2F mode, it is required students to post their notes taken during lectures to a Twitter-like tool and write-up lab findings on shared wiki pages, as a means of capturing students’ thinking and of making available a repository of peer thoughts for continued learning after class. Whatever tools are employed for collaboration, be cautious that communication needs to be intentional to “fulfill specific goals,” as piling on digital discussion may come across as excessive if the F2F classroom already has rich discussions.

Technology-enhanced Modes, Resources, and Teacher Preparation

With content, learners, setting, and instructional strategies in mind, teachers begin the complicated task of matching and selecting appropriate learning modes and resources. Since many modes and resources are technology-based, teachers may need to acquire new technology and data skills while simultaneously reflecting on how new technologies can support teaching and learning requirements.[8]

Selecting Appropriate Learning Modes and Resources in Support of Pedagogies Choices. Blended learning most commonly refers to a combination of traditional instruction with one or more alternative delivery modes (e.g., online learning, mobile learning, labs with tutors, virtual conferences, audio/video broadcasts, learning management and performance support systems, learning communities, etc.). Blended learning also can refer to combinations of traditional classroom materials with digital resources such as: video and animations; simulations and instructional games; e-learning modules and e-books; commercial educational software; social software; learning objects; quizzes and practice tests; and input from experts. Pedagogy primarily should drive the choice of specific modes and resources, with those that provide for interaction, feedback, and collaboration highly recommended.

Develop Technology Skills But Understand How Technology Supports Pedagogy. How willingly and effectively instructors implement technology in blended learning environments can be influenced by their anxiety about computers, concerns over the amount of time required, and beliefs about technology. Deeply held concerns and attitudes may lead to resistance to change, with implications for teacher preparation that include the need to help future blended instructors develop competencies with common tools such as learning management systems as well as strategies for managing change in a rapidly evolving technological environment. There is a need for faculty who teach in integrated environments to hone their technology skills to better support student participants. Faculty have been shown to adapt to blended learning technology in stages, with the majority requiring systematized support in the forms of online training modules, personal teaching assistance, and peer learning communities.

Conclusion

Blended pedagogy should include both teaching and learning activities. Majority of works is focused on blending learning in the literature. Since blending teaching is seldom found in the literature, this paper is to explore the potential of blended pedagogy focusing on blended teaching so as provide guidance for preparing higher education teachers to design and teach blended courses. The key areas of consideration presented in this paper offer a starting point for designing blended learning professional development programs for higher education teachers. The considerations are framed around common steps in instructional design processes that are likely to be familiar to most teachers (i.e. goals and objectives, learner and context considerations, instructional strategies, technology and resource choices in support of strategies). The complexity in this transition begs for a sustained
approach to professional development that will allow instructors to focus on pedagogy and content-specific implementations over time, not simply a new tool in a one-time workshop. Professional development is only one element required to achieve institutional change and widespread adoption of blended learning practices; other supporting elements include awareness-raising faculty events, institutional action plans, administration incentives, exemplary courses, and templates.

Acknowledgement

The author wishes to thank Hong Kong Community College of The Hong Kong Polytechnic University for financial support.

References


