

This thing called blended learning - a definition and planning approach

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This thing called blended learning – a definition and planning approach

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Despite prolific use of the term ‘blended learning’ in tertiary institutions, agreement on a definition remains elusive. The definitions and understandings of the concept are many (Driscoll, 2002; Vignare, 2007) and often offer little pedagogical direction. This is problematic. Under the umbrella of so many definitions almost any teaching practice can be viewed as blended learning. In the absence of pedagogically focused definitions it is difficult to designate the nature of implementation, measure success and provide appropriate institutional support.

This paper attempts to help address these issues and so contribute to the fulfilment of the promise of blended learning. The definitions of blended learning in literature and across twenty Australian universities are explored. Against this background, drawing on principles of constructivism, constructivist alignment (Biggs & Tang, 2007) and universal design for learning, a definition of blended learning is proposed. An accompanying planning approach is presented. At the crux of the planning approach is framing blended learning, not as an exercise in technology use but rather as a problem solving exercise, directed at how best to engage diverse groups of learners in learning activities (Shuell, 1986) in order to maximise opportunities for achievement of desirable outcomes. Implicit in this view is the importance of reflective practice as the driving force for continuously improving blended designs.

Keywords: blended learning, professional development, learning technology

Introduction

The “rules are changing, and there is increased pressure on institutions of higher education to evolve, adapt, or desist” (Swail, 2002, p.16). One of the challenges facing higher education is providing quality learning experiences appropriate to the needs of a dynamic, knowledge driven society. Literature indicates blended learning holds considerable promise in meeting this challenge (Garrison & Kanuka, 2004) and thus many higher education institutions are turning to blended learning (Bonk & Graham, 2006; Bonk, Kim & Zeng, 2006; Graham & Robison, 2007). However, the potential of blended learning remains largely unrealised (Hoffman, 2006; Driscoll, 2002).

The view expressed in this paper is that the lack of consensus on a definition of blended learning and the techno-centric nature of many existing definitions contributes to the unrealised pedagogical potential of blended learning. Under the umbrella of the many and varied definitions almost any teaching practice can be viewed as blended learning. Techno-centric definitions provide little pedagogical direction. This makes it difficult to designate the nature of implementation, measure success and provide appropriate institutional support for blended learning.

This paper is concerned with better understanding the concept of blended learning in an attempt to contribute to the realisation of its potential. A context for exploring the blended learning definitions is provided by briefly presenting a historical perspective. Following this, existing definitions of blended learning in literature and in twenty Australian Universities are then explored. Against this background and drawing on constructivism, constructive alignment and universal design for learning, a definition of blended learning focusing on strategy, learner and tools is proposed. An accompanying planning approach is then suggested.

Historical context

The emergence of multimedia in the early '90's heralded a new era for the use of technology in learning contexts. 'Multimedia' may be defined as being any technology making possible "the entirely digital delivery of content presented by using an integrated combination of audio, video, images (two-dimensional, three-dimensional) and text along with the capacity to support user interaction" (Torrissi-Steele, 2004, p. 24). From a pedagogical perspective, the multiple modalities offered by multimedia support individual learning styles. The interactive capabilities of multimedia recognised as a way of actively engaging learners and facilitating learner-centred experiences (Butcher-Powell, 2005). Literature was often concerned with the question of 'is it better to use technology or f2f?'

The subsequent popularisation of the internet and in particular, the development of the World Wide Web freed access to interactive and media rich learning materials from the constraints of time and place. Terms such as 'web-based learning', 'e-learning', 'online learning' dominated educational contexts. At this stage, e-learning and online learning were primarily viewed as "an alternative way [to f2f teaching] to teach and learn" (Alonso, Lopez, Manrique & Viñes, 2005, p. 218).

Alongside the proliferation of the internet, a range of tools for both online synchronous) and asynchronous communication emerged. This gave rise to the notion of e-learning communities. These computer-mediated learning communities enabled learners to engage in shared learning activities (Holmes & Gardner, 2006; Alonso et al., 2005). The power of technology now focused on the opportunity for learners to share and question their understandings as a way of facilitating more meaningful learning and deeper understanding (Laurillard, 1993).

Freeing interaction, instruction and information from time and place also precipitated the notion of flexible learning. Flexible learning is concerned with approaches to teaching and learning that are learner centred, free up the time, place and methods of learning and teaching and use appropriate technologies in a networked environment (Moran & Myringer, 1999, p. 60). According to the Australian Flexible Learning Framework (2003) flexible learning is an approach that expands "choice on what, when, where and how people learn. Fundamental to the popularity of flexible learning approaches in adult education is the recognition that collaboration is an "essential characteristic of the information economy" and it is essential to enable organisations to "achieve competitive advantage" (Australian Flexible Learning Framework, 2001, p. 8). During this time, focus for the use of technologies in teaching and learning moved away from the question of 'whether or not to use technology. What was initially viewed as a technology option became viewed as a 'technology imperative' (Holt & Thompson,

1998) for economic, social and pedagogical reasons. Driving the exploration of learning technologies was, and still is, the belief that implementation of new technologies may act as a catalyst for a shift in practice away from traditional, teacher-centred f2f instruction towards constructivist, student centred approaches (Relan & Gillani, 1997; LeFoe, 1998, Torrissi-Steele, 2004).

Blended learning is founded largely on this heritage. Significantly, and unlike many of the preceding ideas about e-learning the concept of blended learning tends to recognise the value of both technology and f2f teaching. “The time has come to reject the dualistic thinking that seems to demand choosing between conventional f2f and online learning, a dualism that is no longer tenable, neither theoretically or practically” (Garrison & Vaughan, 2008, pp. 4-5).

Definition of Blended Learning

In literature

Singh and Reed (2001) define blended learning as learning using a variety of instructional modalities. Maise (2006) maintains that “all learning is blended... [it is] the use of two or more styles of content or context delivery or discovery” (p. 22). Along a similar vein, Verkroost et al (2008) define blended learning as the total mix of pedagogical methods, using a combination of different learning strategies with or without technology. Similarly, Ross and Cage (2006) view blended learning as encompassing a “spectrum of learning modes that range from the traditional f2f classrooms to fully online degree programs”. Others argue that blended learning is a blend of tools and/or a blend of philosophies (Carmen, 2002; Rossett, Douglis, & Frazee 2003; Zemke 2002). The goal is to have the right theory for the right situation.” (Rossett, as cited in Zemke 2002). The weakness of these broad definitions is that they identify almost any teaching endeavour as blended learning.

More commonly, definitions of blended learning suggest the distinguishing feature of blended learning is the combination of f2f teaching and technologies. Although the general term “technologies” is used in some definitions (Oh & park, 2009) other definitions specify the technology component more narrowly as e-learning (Koohang, 2009; Akkoyunlu, B., & Soylyu, M. Y. 2008) or online learning (Falconer & Littlejohn, 2007).

In some definitions focusing on the co-existence of technology and f2f, blended learning is defined according to the proportion of learning activities that have been moved online rather than in the classroom, reducing but not eliminating classroom time (Garnham & Kaleta, 2002). Allen and Seaman (2007) indentify blended courses and programs as having between 30-79% of content delivered online. 80%+ online content is categorised as online, 1-29% online content is categorised as web-facilitated. These definitions place emphasis merely on the presence of both f2f interaction and technology rather than on the potential pedagogical impact. Such conceptualisations do little to suggest that blended learning is more than both f2f and technologies co-existing. No teaching and learning aims are inherent in these definitions.

More useful are those definitions moving beyond the notion of simple presence of f2f interaction and technology. Moving towards some focus on pedagogical considerations other definitions include concepts of technology mediated interaction with content, among students and between teacher and students (Bliuc et al., 2007; Tick 2006). Collis and Moonen (2001) argue that blended learning is a hybrid of traditional f2f and online learning so instruction

occurs both in the classroom and online and the online component becomes a natural extension of traditional classroom learning. This definition approaches the idea of the technology component as integrated together with, rather than added to, traditional classroom learning. The notion of 'integration' found in some definitions is pedagogically significant. Thorne (2003) conceptualises blended learning as "a way of meeting the challenges of tailoring learning and development to the needs of individuals by integrating the innovative and technological advances offered by online learning with the interaction and participation offered in the best of traditional learning".

Similarly, Garrison and Kanuka (2004 p.96-97) view "... blended learning [as] the thoughtful integration of classroom f2f learning experiences with online learning such that we are not just adding on to the existing dominant approach or method". Garrison and Vaughan (2008 p. 148) observe "the word blended is used to suggest that it is more than a bolting together of disparate technologies with no clear vision of the result". The idea of 'integration' is an important component of the blended learning definition. If blended learning is to impact positively on the quality of teaching and learning then, as is the case for other technology orientated teaching endeavours, an integrated rather than superficial approach will force re-examination of existing approaches and subsequent adoption of new or enriched strategies (Garrison & Vaughan, 2008; Tearle, Dillon & Davis, 1999; Torrisi-Steele, 2004). Dzubian, Hartman and Moskal (2004) tap into this concept by suggesting that blended learning is a pedagogical approach and should be viewed "...as a fundamental redesign of the instructional model" (p. 3).

In Australian Universities

The blended learning definitions/conceptualizations, at institutional level, of Australian universities were obtained either from the university website or by email contact with appropriate staff in teaching and learning support areas. Responses were obtained for twenty of the thirty-nine universities. A thematic examination of the available definitions of blended learning from these universities yields the following picture:

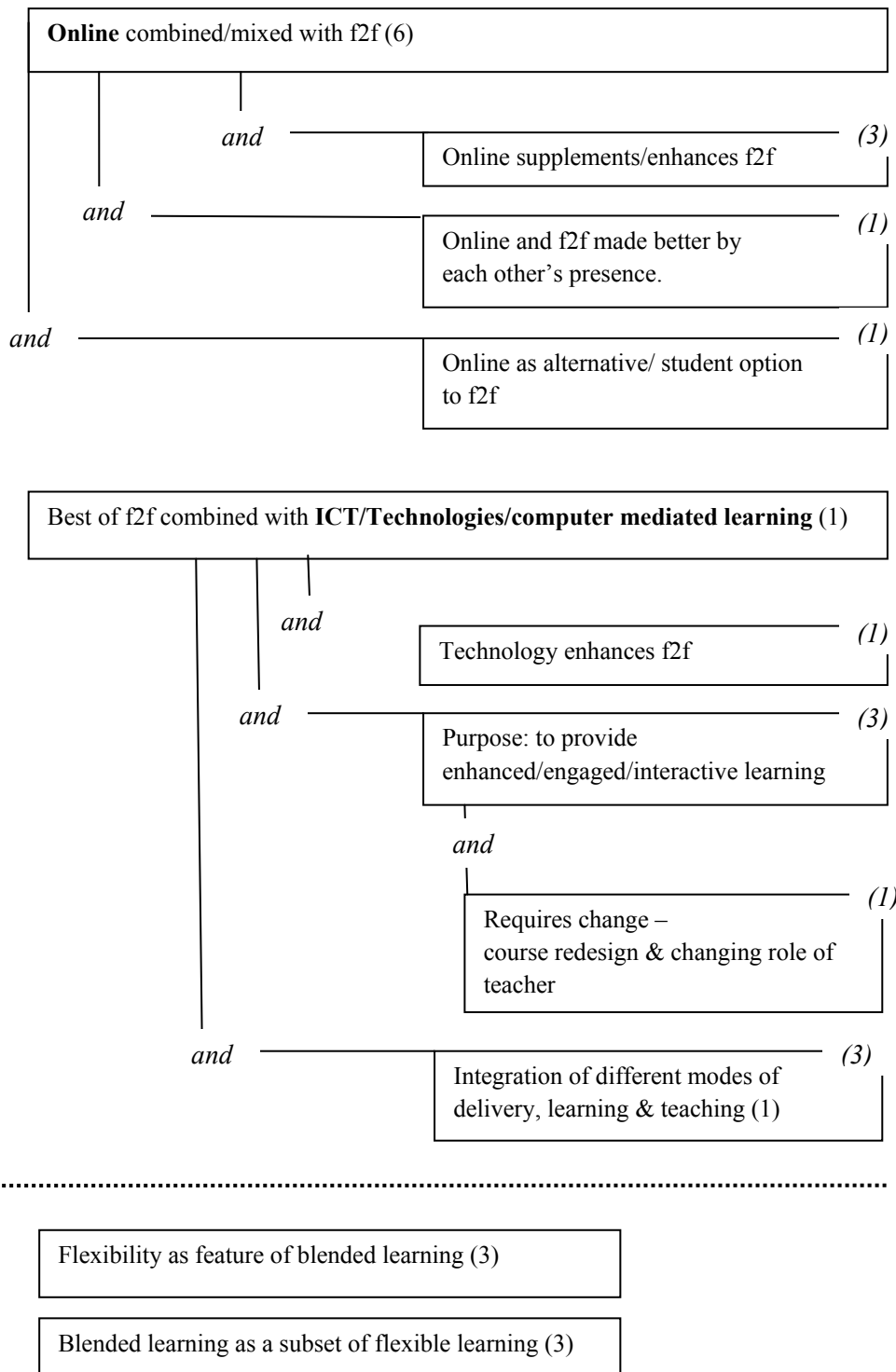


Figure 1: Themes found in definitions of blended learning across twenty Australian Universities. The numbers in () indicate the number of universities.

Although the definitions of blended learning varied across the universities surveyed, the co-existence of f2f and technology is common to all with one exception. This university did not address the presence of technology and f2f, defining blended learning very broadly as the integration of different delivery modes, learning styles and modes of teaching embracing almost any teaching practice as blended learning. The ‘technology’ component of the definitions was narrowly defined by six universities as being ‘online’. The remainder used

broader terms such as ICT/electronic/computer mediated. The majority (thirteen) of the definitions of blended learning focused solely on the presence of f2f and technology. In six of these cases the role of technology was identified as supplementary or optional. These technocentric portrayals of blended learning fail to direct attention to the pedagogical potential of blended learning. Only one of the 'blended learning' definitions examined included statements drawing attention to blended learning as an approach requiring re-conceptualisation of curriculum design and potentially impacting on the role of the teacher. In one other instance, it is explicitly stated that the affordances of the technology and of f2f should be selected and the resulting learning design be matched to desired learning outcomes. Four of the obtained conceptualizations of blended learning broadly acknowledge that blended learning is characterized by integration and variation in learning styles, teaching methods and delivery modes.

Reflective of the heritage of flexible learning, the theme of choice and flexibility in blended learning was evident in six of the surveyed universities.

Summary

The definitions from literature examined in this paper and across the surveyed Australian universities clearly demonstrate the wide variety of definitions of blended learning. Technocentric definitions were dominant.

The definitions of blended learning examined in this paper can be categorised as follows:

- A mix of pedagogical methods or philosophies with/without technology;
- Integration of varied learning styles, modes of delivery and teaching methods;
- The combination of f2f with 'technology', 'ICT' or more specifically, 'online', 'e-learning', 'computer-mediated';
- Combination of specific proportions of f2f teaching with online;
- Supplementing or complementing f2f interaction with technology | online | e-learning;
- F2f and Online co-existing with online scheduled and required, and f2f optional or vice-versa;
- Thoughtful or systematic integration of best of f2f interaction with best of technologies online.

Although the focus of the majority of definitions explored is on the presence of technology, some pedagogical ideas associated with blended learning became evident as a result of the exploration of the term in this paper. These are shown in figure 2 below.

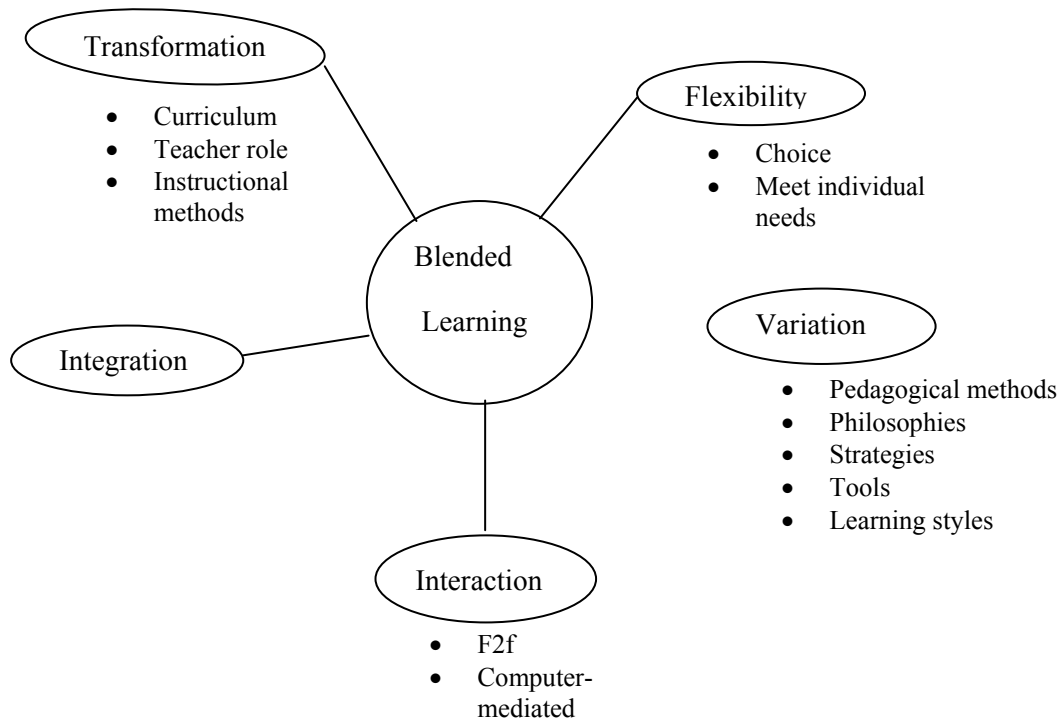


Figure 2: Key pedagogical ideas associated with the blended learning definitions explored in this paper.

Proposed definition

The exploration of blended learning definitions found in literature and across twenty Australian universities reflects the breadth of definitions and the focus on technology rather than pedagogy. The majority of definitions explored fail to provide a useful scaffold for good practice in the implementation of blended learning. In a paper highly critical of the term blended learning, Oliver and Trigwell (2005) suggest that ‘blended learning’ should be defined from the perspective of the learning experience rather than from the perspective of instruction. Against this background the following definition of blended learning is thus proposed:

‘Blended learning refers to enriched, student-centered learning experiences made possible by the harmonious integration of various strategies, achieved by combining f2f interaction with ICT.’

In attempt to provide a scaffold for good practice, this definition directs attention to three dimensions of blended learning design: the learning experiences, the strategies and the tools used to implement the strategies.

Learning experiences:

Congruent with constructivist philosophy, learner-centered experiences address the diversity of needs among learners. Learners are thus able to actively participate in the formation of knowledge and are motivated to engage. The quality of the learning experience is such that the learner feels “the need to engage the task appropriately and meaningfully [using] the most appropriate cognitive activities for handling it” (Biggs, 2007, p. 24). This enriched learning experience fosters a “deep approach” (Biggs, 2007) to learning and leads to more meaningful learning outcomes. Learners do not receive knowledge but rather are supported and guided in their learning by the teacher.

Strategies:

Efforts to provide enriched, learner-centered experiences precipitate the use of varied strategies. Multiple strategies work cohesively to address learning objectives and the diverse needs of students. It is proposed that two frameworks inform strategy development and implementation for blended learning as defined in this paper:

- Biggs (2007) constructivist alignment.
This framework embodies two key concepts. Learners “construct meaning through relevant learning activities” (Biggs, 1996, online) and, learning outcomes, curriculum, teaching methods, assessment tasks are aligned or focused on learning activities “addressed in the desired learning outcomes” (Biggs, 1996, online). Constructivist alignment means that learning experience is cohesive; strategies, assessments and activities form a tightly interwoven support for the achievement of intended (and unintended) desirable outcomes.
- Universal design for learning (CAST, online)
Universal design for learning is underpinned by the cognitive neuroscience revealing the brain uses three networks for learning:
 - Recognition (“What is it?”)
 - Strategic (“How do I do it?”)
 - Affective- (“Why should I do it?”)

Universal design for learning thus recognizes diversity in needs of learners in: the way they perceive and comprehend information (recognition), the way they comprehend and express their knowledge (strategic) and in the way they are motivated to learn (affective). Strategies based on universal design provide multiple means of: representation, expression and action, and engagement (Rose & Meyer, 2002). New technologies are highly congruent with the principles of universal design for learning. The flexibility and variation in learning environments demanded by universal design “is inherent in the way digital content is stored and transmitted” (Rose & Meyer, 2002, online).

Tools:

Blended strategies, according to the proposed definition, lie at the nexus of f2f interaction and ICT. The demands of the blended strategies are met by exploiting appropriate aspects of f2f interaction and available technologies. The availability of both f2f interaction and an array of technologies makes it possible to implement improved, and oftentimes, innovative strategies that may have been impossible in contexts using only f2f. ICT is being used here to include internet technologies, and any other technology capable of storing, displaying, communicating, manipulating information and data e.g. smart phones, PDA’s, interactive clickers etc.

Planning approach: “See a need, fill a need” (Robots Motion picture, 2005)

The proposed definition of blended learning demands that blended learning design is seen as a problem-solving exercise from the perspective of the learning experience rather than the perspective of the tools. Shuell observes “the teacher’s fundamental task is to get students to engage in learning activities that are likely to result in their achieving those [learning] outcomes” (1986, p. 429). Thus, to fully realize the potential of blended learning, the adoption of blended learning is motivated by a recognized need for more effective learning experiences that will lead to achievement of desirable (both intended and unintended) learning outcomes.

Blended learning design must be initiated and driven by the question of “How can I best set up a learning environment so students are engaged in learning activities that will lead to desired outcomes?” rather than “How can I use technology in my teaching?” Most importantly, with focus on enhancing the learning experience rather than using the technology for its own sake, reflective practice will drive blended learning design (figure 3). Endeavors in blended learning must necessarily force teachers to reconsider how they teach, how students learn best and how to best use f2f interaction with technology to provide diverse experiences. The ideal result of the reflective needs driven approach is blends transformative of practice and enabling “intellectual activity that was not practically possible without the technology (Graham, 2006, p. 13).

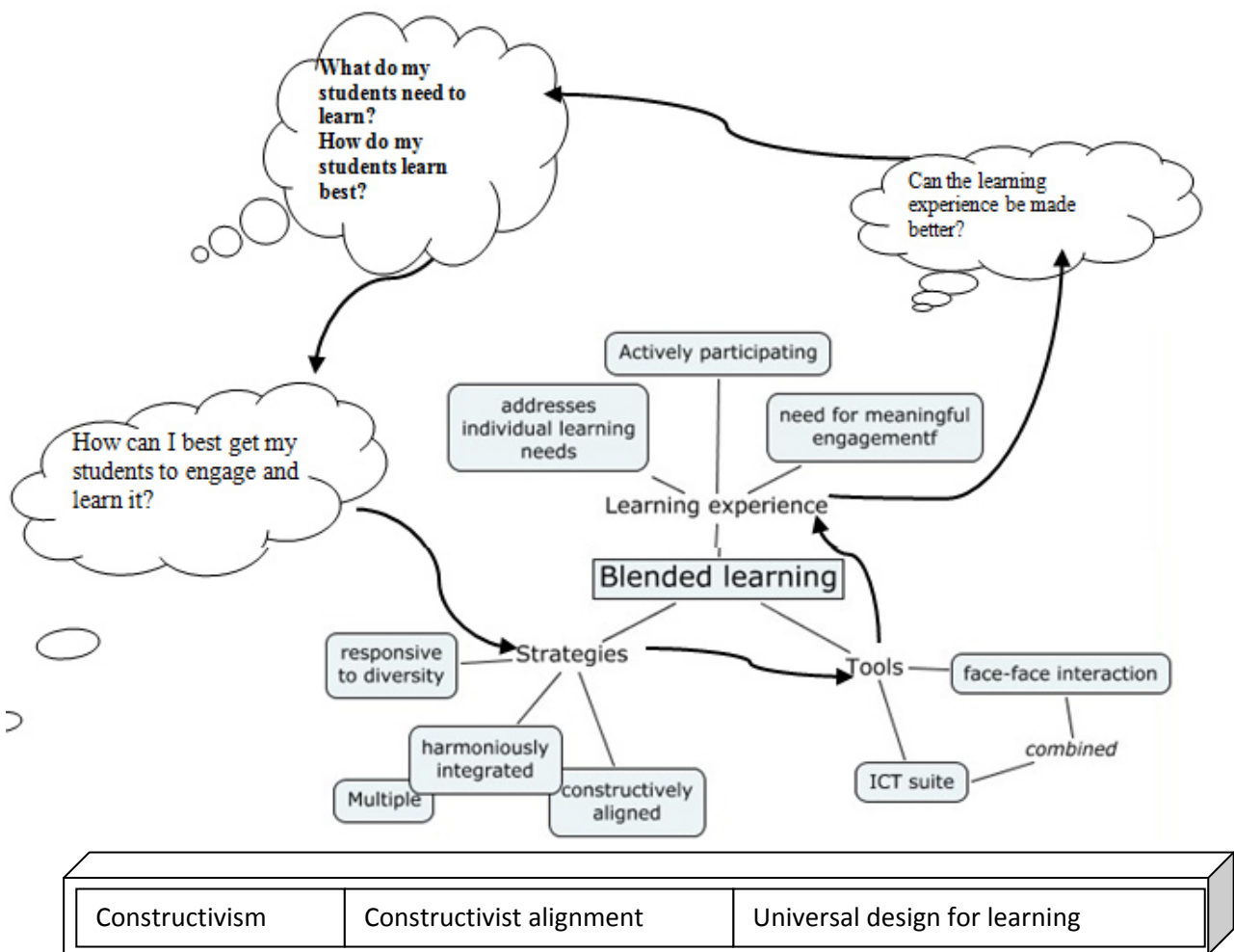


Figure 3: Planning approach for blended learning design emerging from the proposed definition of blended learning.

Conclusion

The context surrounding this paper is the generally unfulfilled potential of blended learning to address the pedagogical challenge facing tertiary institutions to provide quality learning experiences appropriate to the needs of a knowledge driven society. It has been argued in this paper that definitions of blended learning are problematic from two perspectives. Firstly, the term “blended learning” holds different meaning for different individuals and, as Driscoll

(2002) observes, this situation is indicative of the largely unrealised potential of blended learning. Under the umbrella of so many definitions almost any practice can be viewed as blended and it is difficult to designate implementation, measure success and identify appropriate institutional support. Secondly, it was argued that definitions tend to be 'techno-centric' rather than pedagogic. Such definitions do little to facilitate blended learning designs focusing on improving the learning experience. Following an examination of definitions of blended learning in literature and in twenty of the thirty-nine Australian universities it was argued that a better foundation for practice is laid by a definition of blended learning focusing more on the learning and teaching rather than the presence of technology. Towards this end, a definition of blended learning drawing attention to strategy, learner experience and tools has been proposed. Emerging from this definition and drawing on principles of constructivism, constructivist alignment and universal design for learning a planning approach was proposed. At the crux of the planning approach is the notion of blended learning is a 'pedagogical needs based' rather than techno-centric view of blended learning. It is suggested blended learning implementation is framed as a problem solving exercise directed at how best to facilitate the achievement of desirable intended (an unintended) outcomes for diverse groups of learners. The availability of technology as a tool intertwined with f2f methods makes possible design of learning activities more congruent with the learning needs of current society.

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