

# Extending the Reach with Blackboard+

## *Enhancing the Student Blended Learning Experience through Good Online Course Design*

Ruth Greenaway

*Centre for Support and Advancement of Learning and Teaching, University of the Sunshine Coast,  
Maroochydore, Australia*

**Keywords:** Blended Learning, Blackboard, Bottom-up Approach, Engaging Learners, Structuring Learning, Online Learning Environment, Online Course Design, Change.

**Abstract:** The implementation of Bb+ supports the increasing use of a blended learning approach in tertiary education: a fundamental requirement of modern tertiary education. The use of a blended approach facilitates the expansion of the University both physically and virtually as courses are increasingly offered online across the sector. The Blackboard Plus (Bb+) initiative has been developed to broadly and significantly improve the quality of the student experience when using the University's online learning environment. This will ensure consistency in design and structure across courses in a degree program to improve access to learning materials and for ease of navigation. Bb+ consists of a number of components to guide and support academics with its implementation as they design blended educational programs. To empower academics a bottom-up approach to the implementation of Bb+ is utilised to create the change and to maintain momentum and lasting change across the University.

## 1 INTRODUCTION

The learning journey that students take as they navigate through tertiary education is unique and their interaction with technology can define or enhance their experience. Ensuring that each student has access to digital resources and are fully supported through the effective use of technology is an important step in enhancing that journey. Ensuring each student has a good experience with technology was the driver for the introduction of what has been called Blackboard Plus (Bb+). The learning management system, Blackboard (Bb), is used at the University where Bb+ was designed and is to be implemented in 2016. At this University the courses were primarily taught face to face but over the past few years the University has moved towards a blended learning model and is now considering fully online courses. Regardless of the delivery mode all courses have a Blackboard course site, whether the course is taught face-to-face or online, locally or globally. Academics are encouraged to consider their Blackboard course site as an extension of their physical classroom, to enhance student learning by extending the reach to students in

environments away from the main University campus.

Students require instructions to navigate the Blackboard course site just as they do in a face-to-face learning environment. This notion ensures that the curriculum is student-focused, explicit and relevant with intentional integration and sequencing of knowledge, skills and attitudes to enhance their learning experience (Nelson et al., 2014). However, all too often Blackboard course sites are organised in different ways and students have told us that the inconsistency of navigation and organisation of materials across courses and programs is confusing and frustrating. This additional problem solving and navigation leads to cognitive overload and fatigue. Thomée's (2012) study revealed that "computer work requires prolonged concentration and mental presence and is therefore a risk for cognitive overload and fatigue". To improve the student experience the Centre for Support and Advancement of Learning and Teaching (C~SALT) at the University worked closely with a team of academics to develop and implement Bb+. The team included a representative from each School, namely the Blended Learning Academic Leaders and Course

Coordinators who coordinate large first year courses, to impact as many students as possible. The team of academics play a vital role in the success of this initiative therefore we have chosen a bottom-up approach. A bottom-up approach seeks to involve those most affected to avoid the pitfalls of imposed change. When innovation is needed a bottom-up approach is more appropriate (Anderson, 2014). An important element of a bottom-up project structure requires collaborative knowledge sharing, and knowledge building, to support one another and to create new knowledge for the institution (Carbonell, et al., 2013). A key advantage of using such teams for bottom-up change processes is their cross-functionality (Edmondson, 2008). The team piloted Bb+ and gave feedback prior to the full implementation across the University. We refer to this group as the 'first adopters'. The first adopters were assisted in developing their courses through a series of workshops and one-on-one help from technical staff. These courses are now being used as examples for colleagues to view as the Bb+ initiative is rolled out across the whole University.

The inclusion of academics in the development process is key to the approach taken and to the success of Bb+. Ultimately it is the academics that will design their course site and the learning experiences as they would for delivery in a physical learning space. To empower academics a bottom-up approach to the implementation of Bb+ is utilised to create the change and to design blended educational programs suited for local and global needs (Carbonell et al., 2013). A bottom-up approach to Bb+ has harnessed the enthusiasm of the first adopters to create momentum and lasting change across the University.

## 2 WHAT IS BLACKBOARD+?

Bb+ is a University-wide initiative to broadly and significantly improve the quality of the student experience in the University's online learning environment. The initiative, supported by the C-SALT curriculum support team, is designed to assist academic staff in making the change from a face-to-face to a blended approach to learning. It aims to bring consistency of course design and presentation across courses and programs whilst ensuring that the underlying pedagogy enhances learning. The goal is to improve the student experience when navigating Blackboard, which in turn will improve the opportunity to meet the course learning outcomes. A logo has been created that is

easily recognisable and states the intention of the initiative: to enhance the student experience. The logo is used to pull together all the support materials and to model the underlying principles of Bb+ of consistency across courses.

### 2.1 Why are we doing this?

The challenges of working with the University learning management system, Blackboard, were first highlighted by students who voiced their frustration regarding access to learning materials on their Blackboard course sites. Learning materials are sometimes difficult to find or are housed in different areas or folders in each course across their programs, resulting in students expectations not being met. Examples include missed readings or activities that prepare students for the next tutorial, valuable assistance with assessment items being missed or quizzes which aid in revision for exams not being attempted.

The University has an online database of frequently asked questions where students can find assistance with a range of issues. The number of visits to the database was investigated to establish where students greatest challenges lie during their studies. The most visited question at 45 per cent was "Where can I get Blackboard help?" and many other visits were to questions regarding the use of Blackboard, where to find things in Blackboard or general technology questions. This evidence supported the need for greater clarity for students regarding their Blackboard course sites and the need for a University wide Blended Learning Strategy.

The implementation of Bb+ supports the increasing use of a blended learning approach in tertiary education. "Blended Learning is the fusion of educational technologies and teaching in physical and virtual environments to enhance the student learning experience, which is the present and future for modern tertiary education. It is not an optional activity. It is fundamental to modern tertiary education" (Blended Learning Strategy, 2014-2016). The use of a blended approach facilitates the expansion of the University both physically and virtually as courses are increasingly offered online across the sector. The University implemented a Blended Learning Strategy to provide a roadmap for increasing the presence of blended learning across its programs. Utilising the enormous potential of modern educational technologies and the connective possibilities of the Internet, together with informed and creative pedagogies, blended learning provides an opportunity to maintain and leverage the

University's existing strengths, while using technology to extend its reach, in terms of student numbers and locality.

The intended outcomes of the Blended Learning Strategy is to systematically embed educational technologies that enrich the student learning experience, specifically to:

- Accelerate and deepen learning;
- Increase flexibility of access to, and participation in, formal and informal blended learning experiences;
- Align learning, teaching and assessment practices and
- Advance the use of mobile devices for learning.

The enrichment of the student learning experience in a blended learning environment is becoming more and more important because the way we learn is changing as society becomes increasingly digital (McIntyre, 2010). Keppell (2014) summarises the value of blended learning by stating that it offers more opportunities and spaces for student learning, and that it caters to the students of the future.

To ensure the needs of students are being met, each school has a Blended Learning School Plan outlining how these intended outcomes will be realised. In each of these plans, Bb+ is the main goal for 2016 as it assists and supports academics to meet these intended outcomes.

One Faculty investigated the use of blended learning across its schools. They conducted a course mapping survey in Semester 1 and 2 in 2015 involving 169 undergraduate courses. Although the final results are not available, a cursory investigation provides some preliminary findings supporting the need for an initiative such as Bb+. It was revealed, yet not unexpected, that academics use their course sites as a repository for holding information rather than an extension of their physical classroom. The traditional face-to-face model of learning and teaching is well entrenched at the University despite a range of enabling technologies being readily available for use by academics. Greater availability of professional development opportunities is required to ensure students are being offered flexible and blended learning opportunities.

Another driver for the implementation of Bb+ is the issue of attrition, particularly in the first year of tertiary study. The University is implementing first year initiatives that target attrition such as attending to first year transition pedagogies that, "seek to mediate the diversity in preparedness and cultural capital" of first year students (Kift, 2009). Bb+ plus

will support these initiatives by improving access to curriculum in Blackboard course sites. Kift (2009) reports that the curriculum is one thing within institutional structures that students have in common. Bb+ will assist to, harness the curriculum as the academic and social organising device, as "the glue that holds knowledge and the broader student experience together" (McInnis, 2001). The University is assisting academics to organise the curriculum through the implementation of Bb+ due to its importance in enhancing the student experience regardless of delivery mode.

## 2.2 Why is it Important?

Bb+ is important because it:

- Makes it easier for students to engage in learning through an improved course site by moving Blackboard from an online resource repository to a dynamic online learning space with improved functionality.
- Extends the reach of the classroom because it helps students to more easily access, navigate and contribute to online content and activities.
- Assists academic staff by providing a framework for building, reviewing and renewing curriculum in their Blackboard course sites.
- Provides a way for course coordinators to offer the same experience to students across multiple sites regardless of the delivery mode.

## 2.3 Multisite Delivery with the Expansion of the University

The University is one of the fastest growing universities in Australia and its footprint now extends from the Sunshine Coast to the Fraser Coast with a range of study locations. The University provides a regional experience to an ever-increasing number of students to the north of Brisbane and its surrounding regions. It is necessary to strive to maintain high quality program delivery and provide equitable student experiences across the various learning sites. It is important to note that multi-site delivery poses both challenges and opportunities for learning and teaching

Classrooms across the world are changing. In addition to face to face teaching, blended learning, online and technology-enhanced models of education are fundamental to the way that university students interact with course content, their teachers and peers, and the broader world. The single site bricks and mortar institution is becoming a rarity in

Australia's higher education scene. It is being replaced by multiple campus locations; work integrated learning (WIL) sites and online learning spaces. These developments challenge educators to reconceptualise and redesign how quality-learning experiences can be sustained in new environments. Even more challenging than managing quality and consistency is leveraging this variety of learning sites to capitalise on the diversity that is inherent within them. Another important challenge for multi-site projects is effectively evaluating the innovation in terms of student learning outcomes, achievement, retention and student satisfaction and balancing this against other considerations such as sustainability and financial viability of the innovation. Bb+ will be the beginning of a number of initiatives to connect students from all sites with each other, with the learning materials and with academics.

## 2.4 What are the Components of Bb+?

A successful bottom up approach takes a high level of commitment from the Institution administrators and academics (Carbonell et al., 2013). With this in mind the components, resources and support provided for the implementation of Bb+ have been thoughtfully produced over an extended period of time. There are a number of components that make up Bb+. The Core Elements, Course Templates, a Content Layout Tool, a Bb+ Sample Course: Bb+101 and a learning module for academics called Extending the Reach. The Core Elements identify important requirements informed by universal design principles (CAST, 2011) that assist students to connect with the course and the learning outcomes. The other resources assist academics in developing and creating their course sites.

### 2.4.1 The Core Elements

The Core Elements assist students to connect with the course as they work towards the learning outcomes. The core elements were developed as a part of the Blended learning Strategy which recommended a minimum standard be applied to all course sites. The minimum standard was developed by C~SALT in conjunction with the team of academics mentioned in section 1. As the terminology minimum standard may be limiting we have chosen to refer to them as the Core Elements. The core elements are presented in a good practice guide, supported by a checklist.

The good practice guide outlines the core elements that every course site should contain to

structure the curriculum because the curriculum is where "time poor students are entitled to expect academic and social relevance, support and engagement" (Kift, 2009). The good practice guide is organised in two sections: Structuring Learning and Engaging Learners. In each section there are a number of important principles and practices of good online course design. The principles are:

- Course organisation should be simple, intuitive and consistent across courses in a program.
- Course structure should be logical, easy to navigate and consistent. Content should actively engage learners, promote deep learning, model academic integrity and support students to achieve course learning outcomes;
- Provide multiple opportunities for collaboration and interaction using a variety of synchronous and asynchronous tools and
- To provide authentic and well-explained opportunities for students to demonstrate learning through assessment.

The core elements good practice guide also includes a statement of the results that can be achieved if the core elements are applied to a Blackboard course site. The results of implementing the core elements will be:

- Increased predictability and reduction in cognitive overload on students helping them to intuitively locate information, assessment and resources across courses in a program;
- Content is easy to find and predictable, supports flexible and individual learning pathways;
- Students learn disciplinary theory and practices that directly relate to the learning outcomes, through access to scaffolded learning experiences that use multiple (copyright approved) resources;
- The development of a community of learners that leads to improved student learning and course satisfaction, and
- Student assessment output represents meaningful and consolidated learning across time.

An icon is used consistently throughout Bb+ to represent each of the principles. Similar icons are found in the good practice guide and the sample site and will be used by academics in the Blackboard course sites. Students will become familiar with the icons and can use them as another guide when navigating their course site. The icons are arranged in the course templates to support academics in the design process.

A checklist containing guiding questions is included at the end of the good practice guide. The questions enable academics to reflect on their course site after implementing the core elements to ensure that they have all been met. The questions are generic and include questions such as:

- Do you consider the course organisation to be logical, consistent, and easy to access and navigate?
- Are there clear and well-explained assessment task with a marking rubric and instructions available in one location?
- Are there clear expectations of how students will receive feedback?
- Have you provided students with opportunities to collaborate?
- Has your degree program team developed a consistent layout, look and feel?

Course coordinators across a degree program of study are encouraged to discuss a standard approach, design or format for their course sites. This will ensure the course sites for students will be easy to navigate and materials will be found in the same area as they attempt all courses in their degree program resulting in a reduction in cognitive fatigue.

#### 2.4.2 Course Templates

The course templates are automatically uploaded for academics by the Educational Technologies Team within C-SALT. Academics can choose to use the templates or create their own structure. If academics decide to use and fill in the templates with their own information and content they will be meeting the core elements. The content of the course will be found under the Learning Materials heading. The learning materials can be organised into folders or modules and a template has been provided for each design. A content layout tool has been developed to enable academics to organise the learning materials with explicit instructions as to the purpose of each item. It also enables them to apply their personal touch to the course and to improve the “look and feel”.

#### 2.4.3 Content Layout Tool

The content layout tool was developed to provide academics with additional functionality without having to learn any web authoring language. One of the challenges with using web technology to deliver online and blended learning is that content authors (academics in this case) are unfamiliar with the web authoring language - Hypertext Markup Language (HTML). Blackboard comes with a basic TinyMCE WYSIWYG editor (What You See Is What You Get

editor), however the Bb+ initiative needed to deliver a user experience beyond the functionality of this basic editor.

In forming the foundation of a Blackboard building block ‘JSHACK’, an interactive Content Layout tool was developed, allowing academics to quickly prepare consistent, pre-designed learning materials. The tool works by providing a library of pre-designed HTML artefacts, stored in JavaScript Object Notation (JSON) format that can be chosen from a drop down menu and dropped into course sites ready for academics to populate the learning content. The Content Layout Tool supports the Bb+ initiative with the benefits of rapid course building and consistent design elements whilst concealing HTML code from the users.

#### 2.4.4 Sample Course Site: Bb+101

The purpose of the sample course site is to provide academic staff with an annotated course that demonstrates the Core Elements of Bb+. It has examples of how each of the core elements and templates can be used and how a course can be designed. Each section of content has explicit instructions as to its purpose and is annotated highlighting the applicable Core Elements, icons and design notes. It is designed to model good online practice for academics to replicate if it suits the needs of their course. The underlying theoretical principles behind the core elements taken from the learning module: Extending the Reach provides the content for the Bb+101 sample course site.

#### 2.4.5 Learning Module: Extending the Reach

Extending the Reach online learning module provides background theoretical principles that outline the rationale for the structure and design of Blackboard course sites. The learning module guides academics through two topics, which are closely linked to the Core Elements: Structuring Learning and Engaging Learners. The learning module is self-paced and provides readings, activities and reflections to encourage participants to think about the materials they develop for their students and how they could be improved to enhance the student experience and to meet the Core Elements.

Academics are introduced to the idea of integrating constructive alignment processes and learning centred approaches to structure their Blackboard course site for greater learner engagement. Constructive alignment is considered to

be the systematic alignment of teaching strategies. The learning activities and assessment tasks are aligned with the intended learning outcomes. Constructive alignment structures the curriculum design and purposefully centres the learning activities – what students do – into the fabric of the course learning outcomes. Seminal research by Biggs and Tang (2007) into teaching quality at universities reported increasingly large numbers of university teachers found value in using constructive alignment practices. Constructive alignment is encouraged when renewing curriculum and applying Bb+ to course sites.

#### 2.4.6 Support

Support will be made available to academics who feel that they need assistance to organise and redesign their course. Others however, have already organised their course sites meeting the core elements and in fact are the driving forces behind the implementation. This bottom up approach is key to the success of the changes. As Carbonell, Dailey-Herbert and Gijsselaers (2013) report a bottom-up approach contains the potential to unleash necessary creativity to accomplish complex change processes such as design; development and scaling-up blended learning programs at an institutional level. It is expected that all course sites will have a Bb+ makeover in 2016.

### 3 CONCLUSIONS

A bottom-up approach to the implementation of Bb+ has been deemed the most advantageous as it empowers academics to create the change that students are seeking (Edmondson, 2008). Additionally, the University has put in place the resources and support required to enable academics to make changes. It is committed to enhancing the student experience and ensuring first year students, in particular, have the tools they require to be successful. An evaluation of the changes will be conducted at the end of semester 1 and again at the end of semester 2 in 2016 through a series of focus groups with students and academics. The results of the implementation of Bb+ will be reported in 2017.

### ACKNOWLEDGEMENTS

The author acknowledges the staff from the Centre for Support and Advancement of Learning and

Teaching and the team of academics for their work on this initiative and their contributions to this article.

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