

Blended Learning: A Critical look at the pilot implementation within the University of the West Indies (UWI), St. Augustine–Student & Teacher Perspectives

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Given the implementation of a pilot blended programme in Sports Management at The UWI, St. Augustine Campus, this study evaluates the satisfaction, perceptions and recommendations of students and lecturers who interacted with this pilot format. Forty students who participated in the pilot were surveyed and eight teachers who delivered the blended teaching were interviewed. Descriptive and Content Analyses revealed that students and teachers were fairly satisfied and their perceptions were positive in most areas. A number of recommendations were, however, suggested to improve blended formats beyond the pilot approach. Student and teacher satisfaction, perceptions and recommendations are discussed and conclusions are derived to provide support for the implementation of blended learning on a broader basis across the University.

Keywords: UWI, blended learning, student satisfaction, teacher satisfaction, perceptions, recommendations

Introduction

Blended formats have grown in popularity to enhance teaching and learning experiences in higher education institutions around the world (Mahmud, 2010). Dziuban, Hartman and Moskal (2004) note that blended learning should be viewed as a pedagogical approach, which combines the socialisation opportunities of the face-to-face classroom with the technologically enhanced active learning possibilities of the online learning environment. Research however has suggested that blended learning formats can have a significant positive effect on teaching and learning as long as students are open to, and satisfied with, the experience and when teaching practitioners embrace the opportunities and integrate their approaches to best meet the learning outcomes of their courses (Kistow, 2011; Thurab-Nkhosi, 2013). Making an assessment of student and practitioner experiences with blended learning formats therefore becomes an important source of feedback as higher education institutions evaluate the usefulness and impact of this pedagogical approach. For Caribbean educational institutions, such as The University of the West Indies (UWI), which began experimenting with blended learning practice

through a formal policy in 2010, there is a critical need for assessment to be undertaken. This paper addresses this need by evaluating student and practitioner experiences with the blended learning pilot programme at the St. Augustine Campus. In this research, the satisfaction of the users with the pilot programme is assessed, suggestions are collated and recommendations are proposed to shape future policy implementation across the University.

Blended Learning at The UWI, St. Augustine Campus

At The UWI, the premier higher education institution of the Caribbean, some efforts are being made to keep up with the growing trend of mixing traditional face-to-face teaching approaches with elements of interactive online activities and assessment methods to varying degrees. At the St. Augustine Campus, these efforts commenced in 2004 with a mandate to incorporate some online components into teaching strategies and through blended course offerings to support learning outcomes where appropriate. This mandate culminated in a blended learning policy in 2010 (Thurab-Nkhosi, 2013). Tangible evidence of the University's commitment to blended learning is seen in its current Strategic Plan (2012-2017), which speaks to the importance of and need for blended learning formats to develop the quality of instruction and to appeal to the diverse learning styles of students as it has been used globally. One of the main goals of the blended learning policy to be realized within the current Strategic Plan (2012-2017) is the offering of at least one blended programme per Faculty (Social Sciences, Law, Medical Sciences, Humanities and Education, Engineering, Science and Technology). To help support this goal, a pilot blended programme was initiated at the Department of Management Studies, Faculty of Social Sciences. The Post-Graduate Diploma in Sport Management was rolled out in a blended format to allow for a costing model and for the development of an evaluation strategy and student support on an incremental basis, which can provide the model for other similar programmes (Thurab-Nkhosi, 2013). The Post-Graduate Diploma in Sport Management is the first programme offered at the St. Augustine Campus in a full blended format for all course offerings. Indeed, if The UWI is to achieve its main goal of implementing blended learning programmes across all faculties in an effective manner to support teaching and learning, an evaluation of the pilot blended programme is essential.

Thurab-Nkhosi (2013) conducted a study evaluating the implementation of blended learning since its inception at The UWI but her study took a broad-based perspective by examining data generated by the learning management system to review the courses available in myElearning and the level of course activity. One of the main recommendations of that study was the need for a more bottom-up approach for feedback from students and lecturers (Thurab-Nkhosi, 2013) interacting with and using blended learning approaches for learning and teaching and it was noted that no evaluation of the pilot programme was done thus far. The current study therefore addresses this gap by making an assessment of actual student and practitioner experiences. After all, students and lecturers are the

main users of such formats in advancing teaching and learning.

Specifically, this study aims to:

- 1) determine how satisfied students are with the blended format for teaching and learning.
- 2) assess student perceptions on the blended format for teaching and learning.
- 3) propose recommendations based on student perspectives to improve blended formats and to support policy development and implementation beyond the pilot program.
- 4) evaluate teacher satisfaction with the blended format for teaching and learning.
- 5) assess teacher perceptions on the effectiveness of the blended format for teaching and learning.
- 6) propose recommendations based on teacher perspectives to improve blended formats and support policy development and implementation beyond the pilot program.

To achieve these research aims, the theoretical grounding upon which this study is built is next presented. The methodology used to execute the study is described and the main findings are presented and discussed.

Literature Review

Blended Learning

Several definitions of blended learning exist, including the use of multiple technology modes, combining pedagogical approaches, or the blending of instructional technology with face-to-face student and lecturer interaction (Martyn, 2003). Blended learning is defined by The UWI as the appropriate mix of face-to-face teaching and learning approaches with web-based, information, and communication technologies to create collaborative and active learning opportunities for students (The University of the West Indies, 2012b). The policy defines a blended programme as one such that 50-75% of the courses are offered using some combination of face-to-face and online delivery modes (The University of the West Indies, 2012b) to support the achievement of the programme learning outcomes.

Twigg (2003) outlines five (5) different types of blended learning models, which vary in the combination of face-to-face versus online interaction between student and lecturer. These include the supplemental, replacement, emporium, buffet, and the fully online models. Of these models, the supplemental model is characterised by the most face-to-face interaction and the least online interaction. This model keeps the traditional face-to-face class structure and adds resources and activities which are technology-based for students to use out-of-class. In the replacement model, face-to-face class meeting time is reduced and replaced with

online, interactive activities. The emporium and fully online models are similar in that much more online interactions and activities are featured as part of the teaching and learning experience for students. More specifically, the former model is known for the total elimination of all face-to-face classes. Instead, online materials and personal assistance is available for students through a learning resource portal. In the latter model, courses are delivered as fully online courses with the assistance of personnel for course support. The two models; the emporium and online models, are much more widely used at virtual campuses. Finally, with the blended learning buffet model, students are offered a range of different options that match their individual learning styles.

Blended learning can therefore be implemented in many different ways, ranging from models where face-to-face instruction is integrated with online components to varying degrees to fully online formats and activities. The choice of any one model or models of blended learning should be tied to the learning outcomes they are used to support. In fact, Martyn (2003) argues that the choice of blended learning models must therefore be tied to the instructional design, teaching and learning strategies and learning outcomes.

A replacement model was chosen for the implementation of a pilot programme at The UWI (Thurab-Nkhosi, 2013). This model was chosen at the policy level to allow for online interaction between students and lecturers and moreover to offer flexibility to students who want to access such programmes without needing to be physically present in the face-the-face classroom. The replacement model offered students a flexible, interactive, collaborative learning experience instead of traditional, structured face-to-face lectures (Thurab-Nkhosi, 2013; Twigg, 2003). The course offerings for the Post-Graduate Diploma in Sport Management followed the replacement model spread across three (3) semesters; Semester 1 (9 hrs Face-to-Face + 27 online contact hours), Semester 2 (12 hrs Face-to-Face + 24 online contact hours) and Semester 3 (18 hrs Face-to-Face + 18 online contact hours).

In learning management systems such as The UWI's "myElearning" branded moodle platform there are two main users: the students and the lecturers/teachers (Owston, York & Murtha, 2013). The quality of teaching and learning is determined by high levels of student and faculty satisfaction (Shea, 2007). The satisfaction and perceptions of these users ultimately determine whether the blended formats facilitated effective teaching and learning (Chou & Chou, 2011; Castle & McGuire, 2010; Collopy & Arnold, 2009; Farley, Jain & Thomson, 2011).

Students' Satisfaction & Perceptions

There is an overwhelming body of literature which indicates that students' satisfaction with, and perception of, blended learning models impact upon the effectiveness of teaching and learning in higher education institutions (Farley, Jain & Thomson, 2011). This literature is grounded in the Technology Acceptance Model (TAM) proposed by Davis (1989). The TAM suggests that students must

accept blended formats to enhance learning. More specifically, the perceived ease of use and perceived usefulness of the technology shape satisfaction with and acceptance behaviours towards blended learning (Martins & Kellermanns, 2004). Therefore, evaluating such perceptions and satisfaction with blended learning should indicate student acceptance of such formats, and acceptance is seen as an important determinant of a positive learning experience (Hong & Samimy, 2010; Pennock-Speck, 2009; Wiebe & Kabata, 2010).

Many factors influence student satisfaction and perceptions. For instance, Bendania (2011) found that student confidence with using technology, their familiarity with Information and Communication Technology (ICT) skills, the ease of access to/convenience of internet technology at home/work are all correlated with positive perceptions and attitudes to blended learning. The existing body of research also suggests that students who respond better to autonomy in learning can have positive learning experiences where online components are incorporated into teaching to a greater extent (Pennock-Speck, 2009). However, some studies have reported that students experience anxiety and confusion when interacting with online materials (Baharun & Porter, 2009; Burgess, 2008). In such situations, there is a tendency for technological infrastructure in terms of accessibility, costs, reliability and convenience to be problematic and student exposure/familiarity with computer technology to be at low levels (Baharun & Porter, 2009). Assessment in blended learning formats can also be problematic where instructions are unclear and when assessment methods are not effectively tied to the learning outcomes of the course (Miyazoe & Anderson, 2010). In such instances, Miyazoe and Anderson (2010) recommend some face-to-face interaction to outline online assessment methods and to ensure that instructions are clear. Further, they recommend including online forums and a highly interactive learning management system to address student anxiety and confusion.

An often-ignored factor that shapes student satisfaction and perceptions is the attitude of the teacher who is engaged in blended learning (Wiebe & Kabata, 2010; Dashtestani, 2014). Abou Naaj, Nachouki & Ankit (2012) note that the teaching practitioner can be one of the main predictors of the success of blended learning activities since the satisfaction of students is often highly correlated with the way technology is used to support teaching and learning (Okojie, Olinzock & Okojie-Boulder, 2006). When students feel involved in the planning stages of technology integration, which all teachers may not have the time to do, they may recognise the use of technology in education as important and be more accepting of blended formats (Gibson, 2001). In fact, acceptance from both students and lecturers may be shaped by the way technology is integrated with pedagogical decision-making (Gibson, 2001).

Teachers' Satisfaction & Perceptions

Teacher perspectives about blended learning have remained largely unexplored, according to Dashtestani, (2014). The theoretical logic of the TAM (Davis, 1989)

can be used to understand how teachers' satisfaction with and perceptions of blended learning models impact upon the effectiveness of teaching and learning in higher education institutions at the most basic level (Farley, Jain & Thomson, 2011). Teachers must accept blended formats, they must perceive the approach as easy to use and perceive it to be useful in enhancing teaching and learning for students. Teacher motivation and commitment may be a function of teacher training and support (both technical and pedagogical); collaboration among administrators, instructors and technical support; and professional development in areas such as hardware, software, technical troubleshooting and integration strategies for instruction. Teachers, however, are generally not sufficiently prepared to teach with technology (Abrams & Sunshine, 2008). Madaus (2013) argues that most instructors may not possess the skills and training/support for implementing online/blended instruction. Insufficient skills and training/support can contribute to unfavourable and often negative teacher attitudes to incorporating online activities into teaching strategies (Kaleta, Skibba & Joosten, 2007).

At a deeper level, Gibson (2001) suggests that the way technology is used ultimately determines teacher acceptance and perceived usefulness to a greater extent. More specifically, Leh (2005) notes that teachers may not necessarily lack motivation and commitment to use blended formats. Instead, teachers may not be able to fully integrate technology into their own teaching practices. Therefore, while it is important for teachers to be provided with the technological skill, it is perhaps more important to educate them on how to use that skill to support learning (Gibson, 2001). Understanding the intricate relationship between technology and pedagogy can help teachers assess the appropriateness of the technology they use and the compatibility with their lesson plans and learning outcomes (Gibson, 2001).

Wiebe and Kabata (2010), in one of the few studies on teacher perspectives, further reported that teachers influence students' perceptions of blended activities. They also report that teacher encouragement to use the online materials helped increase student performance and participation. Where teachers provided support and timely feedback to students and were well-trained in learning management systems, the learning experience for students was positive (Wiebe & Kabata, 2010). Similarly, positive student perceptions and attitudes to different teaching strategies can positively influence teacher motivation and commitment (Kaleta, Skibba & Joosten, 2007).

With this theoretical grounding which highlights the importance of evaluating student and teacher perspectives to inform blended learning initiatives, the methodology is described below.

Methodology

Research Population, Study Participants & Procedure

A mixed methods approach was used to collect data in this study. A survey questionnaire was constructed to assess student perspectives and an interview

schedule was developed to assess teacher perspectives.

The views of the entire population of students and teachers who participated in the Post-Graduate Diploma in Sport Management programme within the Department of Management Studies in its blended format from 2010 till present were captured. The participants (both students and teachers) agreed to be part of this assessment study voluntarily. Prior to 2010, the Post-Graduate Diploma in Sports Management was delivered as a face-to-face programme. Starting 2010, however, there was an overall change in the programme delivery from a face-to-face format to a blended format in line with the mandate of the University's Strategic Plan of 2012-2017 to initiate a pilot study of blended delivery starting with the Sports Programme. All students and teachers under the blended format participated in this study. Students and teachers in the blended programme were assisted by The UWI's Centre for Excellence in Teaching and Learning (CETL) in terms of orientation with an introductory face-to-face-session, technology training and with full access to the blended learning technologies throughout the Programme.

More specifically, all 23 students who completed the programme in its blended form were surveyed in this study. 17 students currently enrolled were also surveyed. 8 teachers who facilitated the blended approach from inception till date were interviewed. Surveys were emailed to all 40 students and reminders were sent over three one-week intervals. Complete data was collected from students for a 100% response rate. Interview Schedules were also emailed to all 8 teachers as requested prior to data collection. Complete data were also collected from teachers over a 2-week period. The scales that were used to develop the surveys and interview schedules are described below.

Measures

Student Satisfaction, Perceptions & Recommendations

To capture student perspectives, items were modified from Garrison and Vaughan (2008) in their assessment of student perspectives on blended learning in higher education. Four key aspects of student satisfaction and perceptions were assessed including:

- Satisfaction with the teacher's use of blended format
- Satisfaction with the technology used for teaching delivery
- Satisfaction with learning and performance using the blended format
- Perception of blended format versus face-to-face (course format preference)

See Appendix I for the items that were used to measure these four aspects of student satisfaction and perceptions, assessed on 5-point Likert scales ranging from 1= Strongly Disagree to 5= Strongly Agree. Validated open-ended questions were also included in the survey to solicit recommendations on improving blended learning delivery and formats from the perspective of students.

Teacher Satisfaction, Perceptions & Recommendations

Interview questions were modified from Dashtestani (2014) to capture teacher perspectives. Generally, the lecturers were asked to share their thoughts on the following broad areas:

- General satisfaction with the learning management system, software tools, and the format,
- Perceptions on the usefulness/adequacy of the format, and
- Perceptions on the benefits of and obstacles to blended learning implementation.

Validated open-ended questions were also used to solicit recommendations aimed at improving blended learning delivery and formats from the perspective of teachers. See Appendix II for a copy of the interview schedule.

Validity and Reliability of Measures

The validity of the survey items was assessed and reduced using Factor Analysis. The reliability of the valid items was assessed using Reliability Analysis. Cronbach's alpha values were ≥ 0.7 for all measures, thereby denoting reliability (Hair et al., 1998). To reinforce the validity of the interview questions, the inter-rater approach was adopted using experts from the Department of Management Studies.

Analysis Approach

The data collected from the student surveys were coded and entered into the Statistical Package for Social Sciences (SPSS). The data were then analysed by performing a Descriptive Analysis. The open-ended questions on the survey were analysed using Content Analysis.

The data collected from the teacher interviews were also assessed using Content Analysis. To enhance the reliability of the analysis, two different coders assessed the data and verified the significant statements and themes. The data from students (Descriptive Statistics, Descriptive Analysis and Content Analysis) and teachers (Descriptive Statistics and Content Analysis) are presented below.

Research Findings

Descriptive Statistics: Students

Complete data were collected from all 40 students who completed and are currently enrolled in the Sports Management blended learning pilot programme administered by the Department of Management Studies. A Difference of Means tests was conducted and no significant differences were detected between the responses of students who are currently enrolled and those who have already completed the programme. As such, response bias was not a concern in this study. Of the 40 participants, 29 were male and 11 were female, with ages ranging from 27 to 62. Table 1 shows that 23 students completed their blended programmes and 17 were at various levels of completion.

Table 1. Student Enrolment: Programme Level

Programme Level	Frequency	Percent	Valid Percent	Cumulative Percent
Level 1	6	15.0	15.0	15.0
Level 2	5	12.5	12.5	27.5
Level 3	6	15.0	15.0	42.5
Completed	23	57.5	57.5	100.0
Total	40	100.0	100.0	

32 students enrolled in the blended programme were employed on a full-time basis (employed for 40+ hours per week), five worked for 30-39 hours per week, One student worked for 20-29 hours, One student worked for one-nine hours, and one was not employed. All 40 students had grades ranging from A+ to C+.

Descriptive Analysis: Student Satisfaction & Perceptions

Student satisfaction with and perceptions of the blended learning pilot programme were assessed in four key areas. The means and standard deviations provide a descriptive summary of student feelings in relation to each area, summarised in Tables 2-5 below.

Table 2 describes student satisfaction with the teacher’s use of the blended format. Based on the means presented, students agreed that teachers encouraged adequate interaction (3.9), encouraged student feelings of inclusion (3.9), used the format appropriately (3.5), maintained discipline in the blended classroom (3.7), and maintained attendance registration (3.5). Higher means indicated higher levels of satisfaction on 5-point Likert scales or higher levels of agreement with the statements presented. There was only one item where students returned a neutral response, namely timeliness of feedback on tests/assignments (3.1). Generally, it can be inferred that students were satisfied with the teachers’ use of the blended format, with the exception of their neutrality on how timely the teachers were in providing feedback.

Table 2. Satisfaction with the teacher’s use of the blended format

Statements	Mean	SD
	Interaction is adequately maintained with the lecturer when he/she is on the other side of the blended learning classroom.	3.9750
The instructor makes me feel that I am a true member of the class.	3.9500	.59700
The instructor uses blended learning appropriately.	3.5600	.95776
Feedback on evaluation of tests and other assignments was given in a timely manner.	3.1000	1.15025
Discipline is highly observed when the lecturer is on the other side of the blended learning classroom.	3.7250	.55412
The lecturer/supervisor always takes attendance.	3.4750	.67889

Table 3 describes student satisfaction with the technology used for teaching delivery. Students agreed that the technology facilitated the clear display of course content (4.0) and the video images were clear and comprehensive within the blended learning classroom (3.6). However, students were neutral in their thoughts on the frequency of technical problems (3.4) and the reliability of the technology used for blended teaching (3.3). Generally, it can be inferred that students were mixed in their feelings of satisfaction with the technology used for teaching delivery.

Table 3: Satisfaction with the technology used for teaching delivery

Statements		
	Mean	SD
Course content shown or displayed on the smart board is clear.	4.0000	.59914
The video image is clear and comprehensive when the lecturer is on the other side of the blended learning classroom.	3.5500	.55238
Technical problems are not frequent and they do not adversely affect my understanding of the course.	3.3750	.74032
The technology used for blended teaching is reliable.	3.3000	1.04268

Table 4 describes student satisfaction with their learning and performance using the blended format. Students agreed that the blended format kept them alert and focused (3.8), they disagreed that they were dissatisfied with the collaboration activities during the courses (2.3), they were satisfied with their interaction with other students (4.4); their participation in class (4.3); the level of effort required for the courses (4.2); they were willing to learn using the blended learning format (4.3), and they were satisfied with their learning in the course to recommend the format to others (3.8). Generally, it can be inferred that students were highly satisfied with their learning and performance using the blended format.

Table 4. Satisfaction with learning and performance using the blended format

Statements		
	Mean	SD
A blended learning session keeps me always alert and focused.	3.8250	.87376
I am dissatisfied with the process of collaboration activities during the course.	2.2500	.92681
I am satisfied with the way I interact with other students.	4.4000	.54538
I am satisfied with my participation in the class.	4.3000	.64847
I am satisfied with the level of effort this course required.	4.1500	.80224
I am willing learn using the blended learning delivery mode.	4.3250	.85896
I am satisfied enough with this course to recommend it to others.	3.8250	.71208

Table 5 describes student perceptions of the blended format versus face-to-face sessions. Students disagreed that they would not have taken the programme/courses had they known the classes were blended (1.6) and disagreed that they were less satisfied with the blended learning format compared to face-to-face

classes (2.6). Students were also in disagreement that they would choose face-to-face tutorials over online tutorials if given a choice (2.5). Generally, it can be inferred that students had some preference for the blended format.

Table 5. Perception of blended format versus face-to-face (course format preference)

Statements		
	Mean	SD
If I had known this was going to be a blended learning class, I would not have taken it.	1.5500	.74936
Compared to face-to-face course settings, I am less satisfied with this learning experience.	2.6000	.77790
If you had a choice between attending tutorials face-to-face or participating in tutorials online, I would choose the former.	2.5250	.67889

Content Analysis: The Recommendations of Students

The majority of students (85%) recommended the need “for timely feedback on the evaluation of assignments and exams”, and “timely communication/responses from the administrators” on course-related information, registration and general administrative concerns. “Clearer instructions” on the format, delivery and course expectations were also needed (69%) and 20% of the students felt that “more practical activities offline with face-to-face sessions” could be used to supplement their learning. The recommendation about more timely assignment feedback is a recurring theme, as Table 2 previously noted students’ desire for improvement of this aspect of the blended programme’s delivery. This could also be linked to the second recommendation about also improving timeliness on other administrative communications. As Price (2017) noted, in the absence of a face-to-face session, it is hard to ensure that students are clear about assignments. This could be one reason why students would call for clearer instructions. Also, it is likely that students pursuing Sports Management would have at least some affinity for kinaesthetic and/or tactile learning styles, and so this could be why they were encouraging the use of more offline (i.e. hands-on) practical activities.

Descriptive Statistics: Teachers

The population of teachers using the blended learning format was representative in terms of age, years of teaching experience with blended formats and years of general teaching experience. Six teachers were male and two were female. Table 6 below summarises the demographic profile of the teachers that were interviewed in this study.

Table 6. Demographic Profile of Teachers

TEACHER AGE (years)	33	69	48	50	58	50	46	41
TEACHING EXPERIENCE IN BLENDED FORMAT (years)	5	6	2	5	3	1	1	3
GENERAL TEACHING EXPERIENCE (years)	5	34	2	16	34	24	4	5

Content Analysis: Teacher Satisfaction & Perceptions

Teacher satisfaction with and perceptions of the blended learning format were assessed in three areas, as presented below.

General satisfaction with the learning management system, software tools, and the format

All teachers were generally satisfied with the learning management system, software tools, and the blended format. No teacher expressed any degree of dissatisfaction with the use of the blended format. In fact, all lecturers were quite “happy” with the format of the programme. More specifically, teachers felt myElearning was “good”, “quite useful” and “tremendously successful” for facilitating the blended instruction. They were satisfied with using Blackboard as a software tool and found it “quite useful”. The satisfaction of the teachers using the systems, tools and blended format was based largely on the view that it was “appropriate for effective teaching delivery” by “engaging both lecturer and students in real time discussions and presentations” through “synchronous interaction”. Teachers (75%) acknowledged however, that their “satisfaction (is) related to how knowledgeable they are” in utilizing all the systems, tools and blended format, and agreed that they were comfortable with using the blended format nonetheless. The remaining 25% of the teachers agreed that they were comfortable using the learning management system, tools and format due to the “fact that they recognised its usefulness in today’s digital age” and “student responsiveness to the format was welcoming”.

Perceptions of the usefulness/adequacy of the format

The teachers felt that the format was “useful”, “ideal”, “adequate”, and “more than adequate” because of the following reasons: “the flexibility and convenience and to compensate for the limited classroom space”, “it spreads reach and extends the market” and it “forces (students) to take centre stage and responsibility for their learning”. All teachers interviewed shared similar positive perceptions on the blended learning format. 85% of the teachers “willingly accepted the change in the delivery format from a full face-to-face programme to a blended format”. The remaining 15% admitted that they were “a bit sceptical” at the start as to how useful the blended format would be for the delivery of the Programme. However, they admitted that “Blackboard tools were easy to use” and support was provided through “training by the Centre for Excellence in Teaching and Learning (CETL)”.

Notably, 100% of the teachers who started with the blended format in 2010 were still part of the Programme delivery up to the time this research was conducted. They all agreed that if they are to compare their teaching and the learning of their students before and after the implementation of educational technologies “there were obvious changes” in their Programme delivery. “Lesson planning” was much more “comprehensive and time-consuming” with the blended format. However, 80% of the teachers felt that “learning outcomes were more easily achieved by the students” under the blended approach. The remaining 20% felt that the “empowerment of students” under the blended format “motivated” them much more to “excel”. 50% of the teacher admitted that it took 2-3 years to “fully integrate their lesson plans, learning outcomes and overall course structure” into the blended format. 20% took 4-5 years to fully transition into the blended format and to integrate its use for pedagogy in line with their learning outcomes. 30 % said “it took less than 2 years to transition and appreciate the usefulness and adequacy of the blended delivery.

Perceptions of the benefits of and obstacles to blended learning implementation

Teachers cited a number of benefits of the blended format which mirrored their perceptions of its usefulness. In addition to flexibility/convenience, expanded reach, and student-driven learning, other benefits of the blended format included “the opportunity (for students) to interact virtually (therefore providing the) cultural capital they will need for operating in an informational economy”, and the suggestion that blended formats “may be more effective than traditional face-to-face methods” when aligned to appropriate learning outcomes. 100% of the teachers engaged in the delivery of the Programme using the blended format agreed that the wide range of technological tools for teaching delivery such as “Wikis”, “Blogs”, “Online Journals”, “Discussion Boards”, “Quizzes” could be “easily used to support appropriate learning outcomes”.

The teachers also cited a number of obstacles to the implementation of blended instruction however. These obstacles included: “the inconsistency of the internet signals and infrastructure” to support blended formats conveniently on and off-campus, the attitude of some teachers and students “to changes” in teaching formats, the fact that all teachers may not be “properly oriented” or trained for blended teaching formats, and the challenge “to find the perfect fit (between blended instruction and learning outcomes) in those faculties that require a pure hands-on approach like engineering, computer science and agriculture”. Again, 100% of the teachers noted that although a number of teaching tools were available for use in the blended format, not all could be used the same way to support learning outcomes. Therefore, there was “a need for training on the relationship between pedagogy and technology a bit more” to fully integrate the two.

Content Analysis: The Recommendations of Teachers

Four teachers felt that “training”, “more training” and “ongoing training” should be provided for all teachers engaged in the delivery of blended formats. In fact, the

sentiment was echoed that since blended learning is still “a relatively new teaching style”, which is also constantly changing with technology, that continuous training on strategies and tools is needed. Attempts by the Instructional Development Unit (now the Centre for Teaching and Learning) at the UWI to provide workshops and seminars on tools and techniques were also appreciated. However, most participants felt that more could be done since “different subject areas have their own vagaries” so more training should be provided “to learn of all of the strategies/features available” that may best fit different learning outcomes.

It was also suggested that while the BlackBoard tool was useful to facilitate the sessions along with the myElearning learning management system, “easier access to blended learning software” tools by practitioners, guest lecturers and sport leaders “to facilitate special presentations” and “application-based sessions” was absolutely necessary in blended teaching and learning. In addition to easier access to teaching tools, teachers must also be “comfortable with the format”, tools and technologies and take the time “to explore any preliminary anxieties that may be anticipated (by teachers and students) regarding the online programme delivery”. It was further suggested that it would “be useful during the face-to-face stage to schedule some time for an orientation to the online segment of the programme”, to ease any “anxieties” of the students and teacher training to ease their own “anxieties”. This last recommendation mirrors the call by students, as shared earlier, for improved communication and instructions from their teachers and administrators.

Discussion of Findings

This study was built on 6 key research aims which are discussed below.

Research Aim 1: To determine how satisfied students are with the blended format for teaching and learning.

Students were fairly satisfied with the way the teachers used the blended format and were highly satisfied with their learning and performance, as facilitated through blended teaching. This finding provides support for the work of Wiebe and Kabata (2010), Dashtestani (2014) and Abou Naaj, Nachouki and Ankit (2012), which note that the instructor or teaching practitioner can indeed be one of the main predictors of the success of blended learning activities since student satisfaction with teachers can impact their learning and performance as well. Students were less satisfied however with the reliability of the technology used for teaching delivery. This particular finding aligns with the work of Baharun and Porter (2009), which suggests that in many developing countries where the technological infrastructure is not well-developed, the reliability of the technology and technical problems can detract from the effectiveness of blended learning especially when the replacement and fully online models are used, thereby reducing student satisfaction. This finding has important practical implications for the blended approach at The UWI beyond the pilot programme since it suggests there is a need for work to be done to further

enhance the reliability of the technological infrastructure on and off Campus to fully support the replacement model on trial.

Research Aim 2: To assess student perceptions of the blended format for teaching and learning in terms of course preferences.

On average, students had positive perceptions of the blended format and had some preference for blended teaching and learning. Acceptance is an important determinant of a positive learning experience (Pennock-Speck, 2009; Wiebe & Kabata, 2010). This positive perception signals that students who have participated/are participating in the blended pilot programme in Sports Management at the postgraduate level accept this teaching mode over face-to-face delivery. Since the implementation in 2010, students appear to have accepted the blended format within a fairly short space of time amidst a number of technological reliability concerns. This acceptance is an important requirement for students to fully benefit from the Programme in line with the Technology Acceptance Model. This acceptance can lay the foundation for blended formats in other Evening University/part-time programmes in particular.

Research Aim 3: To propose recommendations based on student perspectives to improve blended formats and to support policy development and implementation beyond the pilot program.

Students felt that improvements should include more timely feedback on queries, more timely communication/responses about assessments, clarity of instructions, and a greater balance of online activities with practical offline activities in order to help blended learning approaches to move forward. These recommendations were also suggested by Miyazoe and Anderson (2010) to address student anxiety and confusion, maximise the learning experience of students, and achieve the required learning outcomes. Wiebe and Kabata (2010) note that where teachers provided support and timely feedback to students, were clear in their instructions, and balanced the use of online activities with more face-to-face activities, online forums and interactive learning management systems, the learning experience for students was positive. Indeed, Gibson (2001) also notes that teachers must use the educational technologies appropriately to support the learning of their students. This point highlights the important role of appropriately integrating technology with pedagogy to motivate students to keep them focused as instruction progresses and to consider that different students prefer different learning styles and learn at different rates as well. These suggestions should be noted by policy-makers and teachers as they refine and further develop blended learning at The UWI, St. Augustine Campus to meet the needs of students.

Research Aim 4: To evaluate teacher satisfaction with the blended format for teaching and learning.

Similar to most of the students, teachers were generally satisfied with the learning management system, software tools, and the format of the blended learning programme. More specifically, all teachers adapted to the use of the blended format within a fairly short space of time and were able to align and support their learning outcomes for the respective courses with the technological tools available through the software packages and support tools. The satisfaction of the teachers was largely related to their knowledge and competence in utilizing the systems, tools and the blended format and their training through the CETL on how to integrate pedagogy with the technology (Wilson, 2001). This point is important since Davis (1989) and Farley, Jain and Thomson (2011) note that in order for teachers to accept blended formats, they must perceive the approach as easy to use. Only then can teachers perceive blended formats as useful in enhancing their teaching and the learning of their students (Farley, Jain & Thomson, 2011), and hence be satisfied with the approach. Wilson (2001) also notes that integrating blended formats and educational technologies with pedagogical decisions are important requirements for teachers to accept the formats as useful. Training of teachers on an ongoing basis and the necessary support systems may then be important for policy-makers and administrators to provide as they expand the blended learning initiative; even students echoed the importance of their own training and the provision of support systems as important for their learning within the blended programme. Indeed, teacher motivation and commitment, and hence satisfaction is a function of teacher training and support (technical and pedagogical); collaboration among administrators, instructors and technical support; professional development in areas such as hardware, software, technical troubleshooting and integration strategies for instruction.

Research Aim 5: To assess teacher perceptions of the effectiveness of the blended format for teaching and learning.

Teachers, similar to the majority of the students perceived the format as useful and adequate because of the flexibility and convenience offered by the format, while extending their reach with programmes and allowing for student-driven learning. Wiebe and Kabata (2010) reported that teachers influence the perception students develop on blended activities and that when teachers perceive blended learning in a positive manner that students gain from motivated and committed teachers. As policy-makers at The UWI, St. Augustine Campus attempt to learn from the pilot blended initiative, it is imperative that focus is placed on the teachers engaged in blended teaching delivery. This is because such teachers shared positive perceptions as well as a number of obstacles which can hinder implementation in the future. Similar to students as well, teachers recognised that the reliability of the technological infrastructure on and off-campus and the need for their own continuous training were imperative. Madaus (2013) argues that these two points

may be among the most significant impediments to the implementation of online/blended instruction, and therefore policy-makers and coordinators at UWI, St. Augustine must address these as a matter of priority.

Research Aim 6: To propose recommendations based on teacher perspectives to improve blended formats and to support policy development and implementation beyond the pilot programme.

It was not surprising that training on an ongoing basis was suggested as one of the most important requirements if teachers are to improve their blended teaching effectiveness. It was also deemed important for their own satisfaction in using the format, which was identified in Research Aim 4. This call for more and ongoing training as internal and even external interventions if needed must be incorporated into expanded blended learning initiatives within The UWI. If teachers need ongoing training to deliver the blended formats even students should be exposed to some training as well (Madaus, 2013). In this regard, there is similarity between teachers and students as both groups recognised the need for more face-to-face interactions for orientation to the online segments of the programme, access to and clarity on how to use the online tools and interactive learning management systems to support the learning outcomes of the courses. In moving forward, therefore, such policies and support systems must be built into the delivery of blended courses to increase the satisfaction of the users and to achieve the intended outcomes of a blended learning initiative in line with the current Strategic Plan.

Conclusion

This paper shares the findings of the first evaluation of the Sports Management pilot blended learning programme at The UWI, St. Augustine Campus. These student and teacher perspectives can pave the way forward for blended learning across the University by drawing lessons from the experiences of these users. Indeed, if The UWI is to achieve its main goal of implementing blended learning programmes across all Faculties in an effective manner to support teaching and learning, this evaluation of the pilot blended programme as done in the current study becomes important. It provides the initial step upon which the blended learning policy can be revised and developed for broad-based implementation within the University.

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APPENDICES

Appendix 1

Original Measures of Student Satisfaction with & Perception of Blended Learning

Satisfaction with the teacher's use of blended format
Interaction is adequately maintained with the lecturer when he/she is on the other side of the blended learning classroom.
I cannot interrupt the lecturer to ask a question when he/she is on the other side of the blended learning classroom.
The instructor makes me feel that I am a true member of the class.
I am dissatisfied with the accessibility and availability of the instructor.
The instructor uses blended learning appropriately.
Class assignments were clearly communicated to me.
Feedback on evaluation of tests and other assignments was given in a timely manner.
Discipline is highly observed when the lecturer is on the other side of the blended learning classroom.
The lecturer/supervisor always takes attendance.
The instructor's voice is audible.
I feel that the amount of my interaction with the instructor in this course increased.
I feel that the quality of my interaction with the instructor in this course was better.
Satisfaction with the technology used for teaching delivery
The use of blended learning technology in this course encourages me to learn independently.
Course content shown or displayed on the smart board is clear.
The microphone is in good working condition.
The video image is clear and comprehensive when the lecturer is on the other side of the blended learning classroom.
Technical problems are not frequent and they do not adversely affect my understanding of the course.
The technology used for blended teaching is reliable.
I have trouble using the technologies in this course.
Satisfaction with learning and performance using the blended format
A blended learning session keeps me always alert and focused.
Having students from the opposite gender on the other side of the blended learning classroom listening to what I say might restrict my participation.
A blended learning course makes it more important for students to visit the lecturer during office-hours.
I am satisfied with the quality of interaction between all involved parties.
I am dissatisfied with the process of collaboration activities during the course.
I am satisfied with the way I interact with other students.
I am satisfied with my participation in the class.
My understanding is improved compared to similar courses I studied before.
My performance in exams is improved compared to similar courses I studied before.
I am satisfied with the level of effort this course required.
I am dissatisfied with my performance in this course.
I believe I will be satisfied with my final grade in the course/I am.

I am satisfied with how I am able to apply what I have learned in this course.
I am willing to learn using the blended learning delivery mode.
I am satisfied enough with this course to recommend it to others.
I enjoy working on assignments by myself.
Perception of blended format versus face-to-face (course format preference)
If I had known this was going to be a blended learning class, I would not have taken it.
Compared to face-to-face course settings, I am less satisfied with this learning experience.
I attend videoconferencing classes the same way I attend face-to-face classes.
If the same course is being offered in different formats, which course format would you prefer?
If you had a choice between attending lectures face-to-face or accessing lectures online would you choose the former?
If you had a choice between attending tutorials face-to-face or participating in tutorials online would you choose the former?
If you had a choice between participation in classroom discussion or online discussion would you choose the former?

Appendix 2

Interview Questions for Teaching Practitioners of Blended Programme

- (1) How useful is MyElearning in facilitating teaching delivery? Explain
- (2) How useful is Blackboard in facilitating teaching delivery? Explain
- (3) Do you believe the blended instruction or online instruction for the Sports Management Programme is useful/adequate/effective? Explain.
- (4) What are the possible benefits of blended instruction for this Programme?
- (5) What are the obstacles to the implementation of blended instruction at the DOMS/UWI St. Augustine Campus?
- (6) What types of strategies should be adopted to facilitate the inclusion of blended instruction in the Sports Management curricula in a more effective manner?
- (7) Do you think that you have adequate skills to teach in this blended learning format? Why do you think so? What type of support could be useful to you as you continue to teach in this blended programme?
- (8) Do you think this blended learning format should be extended to facilitate other programmes offered by the Department of Management Studies, the Faculty of Social Sciences, or the University at large? Explain.