STUDENTS’ PERCEPTION OF ONLINE, BLENDED OR FACE TO FACE INSTRUCTION IN TECHNICAL EDUCATION

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ABSTRACT

The expansion of online education is one of the major debates within the world of higher education. The Bahamas Technical and Vocational Institute (BTVI) is no exception and wishes to explore this option on a larger scale. The purpose of this study is to examine students’ perception of alternative learning platforms and look at the experiences of students with prior exposure to the online learning modality to determine if there are variances between them and incoming students with little, to no previous e-learning experience. The expectation is that students would show strong support for blended learning due to contributing factors such as mobile accessibility and flexibility. However, the results indicated that students, even with prior exposure, expressed the need for a greater instructor and in-class collaboration and interaction. The findings revealed that students supported the traditional face-to-face instruction, which was very consistent with their learning style preferences. The aim is that this research will ultimately lead to further investigation into student readiness, instructional impact and overall effectiveness – while determining which modality or the mix of blended learning models are best suited for students enrolled in technical and vocational studies in a developing country.

KEYWORDS: Student learning perception, Technical and vocational Education, Developing country

INTRODUCTION

The Bahamas Technical and Vocational Institute (BTVI) is the premier technical and vocational college in the Bahamas. In fact, it was established in 1949 by Lord Liston and was then known as the National Technical School. While the school has certainly expanded over the years regarding its curriculum and student body, it remains committed to its mission, which is “to enable its students to become globally competitive and economically self-sufficient”. This post-secondary institution located in the nation’s capital Nassau offers Applied Associate of Science Degrees, Certificate and Diploma courses in areas including Construction Technology, Information Technology, Business Office Technology, Electronics, Cosmetology, Fashion, and Automotive. The institute comprises of the main campus situated on Nassau, New Providence, and two satellite campuses on Freeport, Grand Bahama, and Abaco. Additionally, BTVI has a diverse student population of 2,500 students, is spread across the three campus locations and includes demographic ages ranging from 16-50 years.

Online and blended learning platforms have expanded to colleges and universities worldwide, and the Bahamas Technical and Vocational Institute (BTVI) wishes to explore these learning options on a larger scale as well. However, due to the practical nature of many of the courses offered, it may be argued that students will insist on the traditional face-to-face (f2f) mode of
delivery, to achieve student success. This paper will seek to analyze student perceptions about various learning methods, as they are the primary focus of the institute's efforts. Therefore, any endeavors by BTVI about the expansion of e-learning must consider student demand and reception to achieve a satisfactory outcome. It is vital for BTVI to determine how it will address the topic of blended learning. This study will also serve to investigate the current e-learning offerings to see if they are achieving the desired learning outcomes. The information will be used to expand multi-modal learning opportunities to a larger audience; it will also enable the institution to formulate the mix of blended approaches to suit its diverse student body.

Student responsiveness to blended learning is vital to determining a strategic direction for BTVI moving forward. Research shows that higher education has become a “buyer’s market” and consequently, academic institutions are the providers and must meet the growing demand by diversifying educational options to meet the needs of students. This paper seeks to analyze this trend in The Bahamas and will use the views and preferences of students from BTVI as a case study. For context and analysis, views of students in the United States, Europe, and Australia were explored in this study to gain a global perspective of online and blended learning versus face-to-face instruction. Unfortunately, there was limited information available on the topic of online learning from the Caribbean region, except Waldron (2009) and Kistow (2009), and a few others who have sought to focus primarily on course design and faculty development. Kistow’s study of the Graduate Students at the Open Campus in Trinidad and Tobago provided some regional perspective from the adult learner, at the Master’s level which can substantially differ from that of a junior college student or one in a technical and vocational college environment. In the study, Kistow acknowledged the UWI, as the pioneer to the region in the delivery of distance education. The Bahamas also benefits from a thriving Open Campus which utilizes the distance learning approach to deliver its course offerings to Bahamian students and indeed those throughout the region.

This case study will use a descriptive-design as it seeks to gauge student perception of blended learning versus that of face-to-face instruction. A survey of the topic will ask a group of 50 students about their learning preferences whether f2f, online or blended learning alternative. The two cohorts will represent a small student sample. Included in the groups are students of the Information Technology Management (ITM), (these students have prior blended learning exposure), while the other cohort, represents students from the First Year Experience (FYE) seminars, who may have little to no previous exposure to e-learning platforms. The expectation is that the students will express their preference for delivery, and indicate whether or not they endorse the learning options offered through the technical studies programs.

| LITERATURE REVIEW |

According to the literature review, online learning continues to drive the discussion throughout higher education. As Wade (2012) states, tremendous strides towards increasing the use of information and communications technologies (ICT) in colleges and universities with many adopting the “blended learning” approach. Blended learning is a multi-model learning option
which is often described as the mix of traditional methods of teaching, including face-to-face, along with online strategies, according to Wong, Tatnell, and Burgess (2014). Over the past decades emerging technologies have resulted in a surge in blended learning options through the internet and social media platforms, which has significantly impacted learning methodologies and expanded access for life-long learners, according to Kliger (2011). Wong, Tatnell, and Burgess (2013) also supported this approach; however, admonished that it is not to be assumed that just because ICT and other blended learning options are available, students will automatically embrace or fully adapt to them.

This study captured the views of the ITM and FYE cohorts, which is typically represented by students under the age of 25, also known as the Millennial or Digital Natives. Millennials represent a generational group whose childhood experiences and social upbringing have evolved around the use of technology. Stafford and Stinton (2014) argued that while students may appear to be technologically savvy, they can still be quite unprepared for blended learning. Studies show that even with the latest technological advances, the assumption should not be made that students who routinely use a range of online and digital devices in their personal and social lives would have no issues utilizing technology for educational purposes. It concluded that critical issues, such as student readiness could become even more acute for students enrolled in vocational and technical studies, particularly first-year students and those who are new to the college or university environment according to Stafford and Stinton (2016).

The primary question of this particular study is: “Are there any differences in perceived learning difference between students in online and blended learning or face-to-face learning environments?” It is also important to establish potential opportunities and pitfalls associated with both methods. Fortune, Spielman, and Pangelinan (2011) stated no differences in perception of skill development and learning in its study of students enrolled in several online and face-to-face sections of business communication. The study indicated that online students felt a lesser need for the face-to-face classroom setting; those students were satisfied with the instruction regardless of the modality. Research conducted by Ni (2013) of California State University similarly compared the effectiveness of classroom and online learning. However, that study examined critical factors to active learning, which include course content and instructions; it was then that Ni (2013) advised that further studies were needed beyond those factors to include students’ personal traits and other exogenous factors. Further research into the online course design and the effects of the online environment, on a particular course, proved that some classes were better suited for online instruction rather than face-to-face, or vice versa. Ni’s (2013) finding also pointed out that elements of student support such as pre-enrollment, student feedback, counseling, student assessment, course orientation were all critical factors needed to determine learning effectiveness.

BTVI boasts of a diverse student population, the majority of its students are considered adult learners. A study on the topic of online versus face-to-face conducted by Jaggers (2014) indicated that most students select specific courses because they felt that it was self-directed, with a little student or instructor interruption; this notion certainly supports the Adult Learning Theory known as Andragogy. This theory assumes that adult learners are typically self-directed. According to Ruey (2010), further studies shows that blended learning is linked with at least three different learning theories which include the Adult Learning Theory, the Cognitive Learning Theory, the
Social Constructivist Learning Theory, and the Socially Situated Learning Theory. The Jean Piaget’s Cognitive Learning Theory provides a cognitive framework which emphasizes that the learner’s “schema” as an organize knowledge structure designed to interpret information. About blended learning, it implies that when a teacher applies the cognitive approach to the curriculum, they can focus, understand, and apply concepts regarding their relationships. Additionally, Social Constructivist Theorist, Vygotsky (1978) holds the assumption that there should be some social context of learning. According to the theorist, social interaction with people, including other learners is critical factors to cognitive development.

While evidence and theories support that online learning is widening accessibility to higher education and by providing pathways and flexibility, it also allows students to continue to combine school with full-time paid work, family and other responsibilities, Stone et al. (2016), pointed out that it is not without its challenges. In fact, according to completion rate statistics provided by Australia’s Department of Education, of students enrolled in 2005, only 44.4% of fully online (external) students had completed their degree program by 2012, compared to the overall completion rate for the same period which was 72.3%. Stone et al. (2016) contend that multi-modal instruction results in higher completion rates. Their study also indicated the possibility that the lack of face-to-face interaction with the college or the instructor proved to be another challenge for the online learner.

Additionally, students indicated that among the key factors which led to the low completion rates included having feelings of isolation, students felt overwhelmed by the technology, along with the feelings of being unprepared or ill-prepared for the online learning environment. So, notwithstanding the theory that adult learners are typically self-directed learners, the findings also suggest that students enrolled in online courses felt lower levels of instructor presence, and advised stronger and more explicit instructor presence, along with student support services.

Ultimately, research into the perceptions and experiences of online and blended learners indicate both positive and negative responses, according to Stone et al. (2016). Additionally, students were more inclined to select an online course based on its level of difficulty. Students choose the online course options that they felt were “easy” academic subjects, but when the “difficult” or “more important” courses were required, they opted for the face-to-face instructional mode over the online learning option. Therefore, the strength of the blended learning courses is the fact that they are designed to bring together both face to face and online strategies. As Clusky, Hodges, Smith (2006) stated, blended learning, overall, has substantially increased student satisfaction over either face-to-face or online approaches. Blended learning courses have significantly less web-instruction than the fully online course, it is expected, however, that the blended learning approach provides a significant element of student support, which Ni’s (2013) findings confirmed to include pre-enrollment, student feedback, counseling, student assessment, and course orientation.

For many, while blended learning provides open accessibility and flexibility, enabling them to study while continuing to work, and manage other responsibilities. Garrison and Vaughn (2008) revealed that the Pew Foundation sponsored a program in course redesign to addresses the critical factors associated with blended learning. The foundation’s efforts led to three blended learning models. According to Garrison and Vaughn (2008), the models include the supplemental model, the replacement model, and the emporium model. The additional model includes the
basic structures with supplemental lectures, textbooks with a technology-based and out-of-class activities. Secondly, the replacement model reduces the number of in-class meetings and replaces in-class time with out-of-class activities, with interactive and collaborative learning experiences. Finally, the emporium model, this design eliminates all class meetings and replaces them with a learning resource lab with online material and on-demand personalized assistance with an open attendance model. These models were designed strategically to assist higher education with formulating the right mix of blended learning options to best suit its student populace while achieving the desired learning outcomes.

According to Singh (2003) “Learning requirements and preferences of each learner tend to be different”. Singh recommended that organizations use a blend of learning approaches in their strategies to get “the right content, in the right format, to the right people at the right time”. He urged that educators find the most efficient ways to combines multiple delivery media which can complement each other while promoting learning and application-learned behavior. The E-Learning Blog HTTP: elearningindustry.com outlined six other blended learning models supported by educators. These include the Face-To-Face Driver model, which allows full participation at all levels of ability and mastery. This model works best for the diverse classroom setting. The Rotation Model allows the instructor to set a course schedule and then move toward online work. This model works best in a preparatory environment where the instructor can provide struggling students more individualized attention, while the students that are performing well can move onto the online learning station. The online instructional delivery more heavily drives the Flex model. Best used for part-time students or students that have attendance issues. The Self-Blend model allows coursework beyond the traditional setting. While the student can participate in a traditional class, they are also able to enroll in supplemental courses. This model works well for highly motivated and self-directed learners who may wish to earn early college credits or seek advanced placement. The Online Lab model involves a total online educational delivery of the entire course. These courses are supervised by trained paraprofessionals and are ideal for students who may need a slower paced instruction than a traditional classroom or those that may wish to progress at a faster rate than the traditional setting. This model is ideal for the students needing flexibility and accessibility.

This study was conducted at the Bahamas Technical and Vocational Institute using sample survey which included two student cohort groups of 50 students (n=50), twenty-five students from the Information Technology Program (ITM) and twenty-five (25) from First Year Experience (FYE) Courses, Student Success and Entrepreneurial Workforce Prep. The research survey created through the “Survey Monkey” online portal’s inquiry of the two cohorts. The (25) students in the ITM module had prior exposure to online learning through the learning platform as well as face-to-face sessions. The (25) students selected randomly from the FYE seminar experienced face-to-face workshops; however, that sample group had no prior exposure to online learning. Originally it was intended that the surveys would be sent out to (50)
students via the college’s email portal at the end of the fall semester. However, the study was hand delivered to the classroom and administered manually. This study utilizes a detailed design. The instrument consisted of 4 demographic questions, six five-point liker–scale (strongly agree, agree, no opinion, disagree, and strongly disagree) and four open-ended questions. The survey was created online using survey monkey and deployed manually. The 50 students were selected based on their program of study and the current course enrollment. The 25 ITM students and 25 FYE students were invited to participate in the survey, which was voluntary and it did impact their final grade. There was also no direct email communication between the surveyor and the participants. Therefore, there were no duplicate emails sent, or surveys completed. The expectation is that the study reaches the following conclusion.

**Conclusions**

While online learning and emerging technologies have made university and college education around the globe more accessible to students, the research also indicates that it is not without its challenges. One of the greatest challenges to this study is the fact that limited research data is available on online education in The Bahamas, or in fact, no information on technical and vocational training was discovered, particularly, in the region. In analyzing student perceptions of online and face-to-face instruction at BTVI, the anticipation is that students from the ITM cohort would show a more favorable response to online and blended learning. Fortune et al. (2011) suggest that typically, students that are familiar with using technology also referred to as “digital natives” are more inclined to select the online learning mode over the face-to-face learning modalities. Additionally, key factors such as convenience, self-directed learning and flexibility could also make online learning the preferred learning modality for the ITM cohort. Relatively, the anticipation that students enrolled in the FYE freshman orientation group would not share the same motivation toward online and blended learning as a result of little to no prior college exposure or online technology exposure outside of social media. Studies by Fortune et al. (2011) suggest that face-to-face learning mode is the best option for students that require interaction with the instructor to absorb the course material more efficiently. The research showed that there was support for both forms of learning. However, many choose the traditional style of f2f instruction over the online option, even by students previously exposed to the e-learning environment. ITM students particularly noted that they agreed and strongly agreed that face-to-face instruction provided them with a conducive learning environment which made it easier for them to communicate with classmates and the instructor. In this study, the ITM cohort agreed by 57% that f2f instruction made it easier for them to communicate with the instructor and fellow students. The student choosing face-to-face instruction, were firm in their preference; however, they also supported the blended learning for courses such as the First Year Experience Seminars such as Student Success and Entrepreneurial Workforce Preparation. They agreed if that course were available, they would select the online option at registration. However, they decided that certain ITM classes were better suited for face-to-face delivery. Of
the group, 55% disagreed to selecting an f2f course only if the online option was not available. ITM students agreed that f2f instruction improved their ability to learn and contributed to their overall course satisfaction. When asked if they would select the blended ITM course, 73% said yes. However, the overall finding for the ITM cohort was that they agreed and strongly agreed by 95% that some level of face-to-face instruction remains in the course design. It may be that they are more accustomed to this mode of teaching, but the results were still positive for both options.

Comparatively, the FYE cohort which included students from the Student Success and Workforce Preparation Courses provided interestingly similar responses. They also felt that f2f instruction made it easier for them to communicate with the instructor and classmates. However, of this group, only 43% agreed that they would have selected the f2f option of the FYE course if the online option was available. In fact, 56% agreed, and 30% strongly agreed the f2f instruction contributed to their overall course satisfaction and an overwhelming 87% agreed that f2f was their overall instructional preference. In this sample, the learning style preferences indicated that of the student surveyed, 56% were Visual Learners, 21% Kinesthetic, 20% Visual, 9% Auditory and 9% Unsure.

**Discussion**

Results of this study revealed critical issues associated with the adoption of the blended learning mode. Firstly, higher education must address the student’s perspective. According to Stafford and Stinton (2016), only a few studies of university students’ real-time experiences of blended learning and vocational studies exist, with little to no information related to the Caribbean region. Outside of Waldron, 2009 and Kistow, 2009 study of graduate level students at the University of the West Indies, Open Campus in Trinidad and Tobago.

This research into the student perception of online and blended learning versus traditional approaches aimed at providing a greater understanding of the distinct issues surrounding students from non-traditional and low socio-economic environments, studying at a junior technical college in a developing country. The finding suggests that, regardless of whether the student had prior online instruction or not, all students agreed that blended learning is a great option for learning accessibility and flexibility.

The results of this study, however, prove that it is also important for students to feel they are involved in a collaborative learning environment to alleviate feelings of isolation and disconnection, which leads to lower completion rates. It confirmed that both student cohorts showed strong support for interaction with the instructor and peers, especially for courses that were considered to be “more difficult” or “more important.” While adult learners typically prescribe to the adult learning theory which supports self-directed learning, the study revealed that students at BTVI requested both self-directed learning options, in addition to the traditional face-to-face instruction and learning support.

Further research to determine the impact of blended learning on learning effectiveness and if in fact, there is any correlation between the blended learning model and program of study or...
the student learning style. Additionally, it would be interesting also to explore how BTVI will customize its blended program offerings to address its outer-island clients and to test if cultural dynamics will play a role in developing that approach. Interestingly, The Bahamas, as an archipelagic nation, makes for an interesting test case. The country is made up of hundreds of islands and cays, though many of them are uninhabited, the major outer islands provide unique opportunities to explore technical and vocational training opportunities through blended learning and traditional modes of delivery. In my view, the possibilities are endless.

From my perspective as a Student Services Administrator, this study provided much-needed insight into the student’s perspective. It also allowed a unique view into current blended learning initiatives at BTVI. This study has provided insight into the future efforts that will need to be directed to give the student with the necessary support to improve the learning experience. Further efforts could provide strategic insight into critical student support elements such student readiness, pre-enrollment tips, course orientation, counseling, student assessment which will allow students to achieve student success.

Undoubtedly, BTVI is poised to strengthen its blended learning framework, and as better ICT mediums become available, the college can make an even greater impact in the field of technical education expanding its reach throughout the nation’s archipelago. The finding of this study shows that BTVI students are open to blended learning; however, the students voiced their strong support for a balance between online and supplemental instruction and the traditional face-to-face interaction with course instructors and fellow colleagues.


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