

USING VIRTUAL OFFICE HOURS TO GAUGE THE IMPACT OF TRANSACTIONAL ENGAGEMENT BEYOND THE CLASSROOM

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Abstract

The emergence of synchronous e-learning is offering opportunities for educators to promote engagement between teachers and students beyond the classroom. This study employs Virtual Office Hours using *Blackboard Collaborate!* to gauge the impact on student engagement using chosen indicators identified in the literature as being significant in a university setting. A descriptive analysis has revealed teachers who provide appropriate online technologies together with effective pedagogical methods coupled with a supportive and safe environment has a strong impact on transactional engagement. In turn, the student experience and their graduate capabilities are enhanced so they can function as productive members of society.

Introduction

A challenge facing teachers and their institutions today includes selecting suitable and useful technologies that encourage meaningful interactions between teachers and students to improve the student experience (Little et al., 2009). More specifically, the importance of student-teacher interactions outside the classroom is well documented in student experience literature (Pascarella & Terenzini, 2005). There are numerous factors that add value to the student's educational experience; however, there is general agreement that engaging students in and out of class is a crucial component (James, Krause, & Jennings, 2010).

Understanding the characteristics, needs and interests coupled with the way today's students (predominantly generation Y) learn and the way they live their lives outside the classroom is crucial to promoting interactions with teachers and their peers beyond the classroom (Mann, 2005). Today students prefer group work and desire interactivity (Prensky, 2001), have working commitments (James, Krause, & Jennings, 2010), and continually search for alternative e-learning environments (Walker, Voce, & Ahmed, 2012).

The rapid increase in web-based learning technologies provides new communication channels for teacher-student interaction outside the classroom (Li & Pitts, 2009). A few studies that have employed Virtual Office Hours (VOH) to interact with students outside the classroom using synchronous tools (e.g. *Blackboard Collaborate!*) report increased engagement levels predominantly through informal observations (Hooper, Pollanen, & Teismann, 2006; Michael, 2012). To justify the benefits of using online technologies for augmenting student engagement levels teachers need to use a formal measure

of engagement perhaps in the form of recommended indicators (Reading, n.d.). This study's purpose is to create an online learning community through the provision of VOH using *Blackboard Collaborate!* to gauge the impact on transactional engagement using chosen indicators outside the classroom. This study contributes new insights toward the current literature on student engagement and adds a student's perspective to what constitutes quality in higher education and/or improved student experience (Richardson, 2011).

VOH refers to the allocation of specific times allowing for students to consult with their teacher using some form of computer-mediated communication. **Blackboard Collaborate!** refers to an interactive real-time computer assisted learning environment that facilitates the participation of multiple users at the same time across various locations. **Transactional engagement** refers to learners and teachers engaging with each other. It is measured by the chosen indicators or proposals for action Zepke and Leach (2010) identified: (a) teaching and teachers are fundamental to engagement; (b) learning is active and collaborative and promotes learning interaction; and (c) students engage in deeper educational experiences and broaden their academic capabilities.

This study was conducted at Victoria University (VU), which has a diverse student cohort with multi campuses both onshore and offshore. The offering of VOH effectively adds another virtual element to their learning so students are participating in a blended learning environment.

The platform for this study is two-fold. First, the author sought to incorporate elements of the Student Experience Strategy being developed at VU into the study. The strategy is grounded on six guiding principles. The relevant principles of interest for this study include student centred approach, creating environments that promote active learning, and strengthening student's relationships through engagement. Second, a recent report conducted by the Australian Council for Educational Research highlighted the urgency for greater staff-student interactions in the face of poor student engagement results. It is envisaged that improving transactional engagement will contribute to a greater educational experience for students and enhance their graduate capabilities for their professional life.

Selective Literature Review

The following provides a literature review of the previous research conducted in the relevant and related areas.

Defining Student Engagement

There is general consensus in the literature that there is no single definition of student engagement and that it is a multidimensional, complex construct. The complexity of *engagement* is illustrated through (Zepke & Leach, 2010) wide-ranging investigation of the literature revealing four research perspectives. This study focuses on the transactional engagement perspective and uses the chosen indicators stated earlier to measure engagement. For the purpose of this study **engagement** is defined as the inclusion of active and collaboratively learning, involved in challenging academic activities, meaningful interaction with teachers, involved in enriching educational experiences and feeling part

of a learning community (Coates, 2007). The chosen definition represents an aggregate view of the literature and the definition is closely aligned with the chosen indicators used in this study to measure engagement.

The Use of Online Technologies to Enhance Student Engagement

There have been numerous studies conducted reporting the impact of using online technologies on student achievement, learning and other educational outcomes. The benefits of online technologies have been well documented in the literature (Chin & Carroll, 2000). Further, there appears to be a general consensus reporting a positive relationship between online technologies and student engagement and various learning outcomes (Chen, Lambert, & Guidry, 2010; Laird & Kuh, 2005).

The Importance and Promotion of Out-of-Classroom Interaction Using Online Technologies

The importance of out-of-classroom communication is well established in the existing literature. Informal student – teacher communication has been positively linked to student satisfaction and retention (Cotton & Wilson, 2006; Nadler & Nadler, 2000). Krause (2007) identified that students who interact with their peers for academic reasons outside the classroom are more satisfied with their educational development.

The use of online technologies has witnessed students and teachers using email to communicate with each other outside the classroom (Jones & Johnson-Yale, 2005; Li, Finley, Pitts, & Guo, 2011). An emerging trend documents the use of synchronous tools, e.g., Instant Messaging, by teachers to interact with students beyond the classroom by offering VOH. These studies report VOH increasing student satisfaction and excitement in relation to student-teacher interaction beyond the classroom (Li & Pitts, 2009; Lim, 2010) and enhancing student engagement through informal observations (Hooper, Pollanen, & Teismann, 2006; Michael, 2012).

Methodology

In this next section, I provide a brief description of the methodology employed to conduct this study.

Instrument

This study utilised a self-reporting survey approach to capture data relating to the following areas:

- Part (1) Student demographics, including age, gender, nationality, enrolment status, ability and hours of employment.
- Part (2) Teaching and teachers are fundamental to engagement: Statements were grouped under the headings teacher enthusiasm teacher preparedness and teacher sensitivity to students' need.
- Part (3) Active and collaborative learning or fostering learning interactions: statements were grouped under the headings teacher-student interactions and student-student interactions.

- Part (4) Students engage in deeper educational experiences and broaden their academic capabilities: statements were grouped under the headings teacher and content and VOH promoting higher order thinking skills.

In the survey, Parts 2– 4 are indicators to measures transactional engagement, identified by Zepke and Leach (2010) as one of the research perspectives relating to student engagement. A review of the existing literature provided the basis for developing relevant statements to measure Parts 2- 4. Students were asked to evaluate the statements using a continuous measurement scale from 0 to 100, where 0 indicates strongly disagree, 50 indicates a neutral response and 100 indicates strongly agree. In addition, I maintained a reflective journal to share my thoughts on providing VOH and facilitate self-assessment and self-reflection to inform future practice regarding VOH.

Data Collection and Analysis

Participants of the online learning community were invited to provide feedback of their experience by completing a survey. The survey with detailed instructions (including definitions of key concepts), was distributed using their preferred email address after the students had completed their final exam. The timing of the survey distribution was seen as important as the responses should reflect greater honesty resulting in meaningful data. In addition, students were required to complete the survey in their own time resulting in negligible intrusion by the researcher and subsequently returned by reply email.

The data collected from the surveys contained both qualitative and quantitative elements. The software program SPSS v20 was used to perform basic descriptive analysis to report students' mean responses to the three indicators that comprise transactional engagement. In addition, frequency tables were created to summarise the students' demographics.

Participants and Context

The participants for this study were drawn from students who were studying a third year unit Corporate Finance across two different campuses at Victoria University during semester 2, 2012. A total of 40 students utilised the online learning environment where 30 students willingly completed the survey, resulting in a response rate of 75%.

Of the participants who completed the survey, 13 were females and 17 were males. The majority of participants (87%) were aged 20-29. In relation to their enrolment status, the majority were local students (70%) and attending university on a full time basis (80%). The participants that came from a non-English speaking background were 60%, including Saudi Arabia, India, Philippines, China and Mexico. Participants were either completing an Accounting, Accounting/Banking and Finance or Banking and Finance degree. The majority of participants were working part time (67%), and of those most were working between 11 and 20 hours a week.

Results and Discussion

The following section reports the results relating to the three indicators and the subsequent grouping of statements under each indicator to measure transactional engagement. In turn a discussion of the results follows along with major themes identified from student's responses to open-ended questions.

Teaching and Teachers are Fundamental to Engagement

Teacher enthusiasm, teacher preparedness and teacher sensitive to my learning needs all rated extremely favourably (see Table 1 below).

Table 1

Mean Response for Teacher "Enthusiasm," "Preparedness" & "Sensitivity"

Teacher Enthusiasm	Teacher Preparedness	Teacher Sensitivity
Positive attitude: 95% Welcomed questions (98%) Responded (92%)	Well organised (96%)	Care factor (94%) Accessibility (91%) Safe and productive environment (94%)

These results were extremely satisfying and largely expected as students who find teachers accessible, approachable, caring, understanding and generally supportive are more engaged with their studies (Richardson, 2011). Mearns, Meyer, and Bharadwaj (2007) extended the thoughts of Richardson (2011) and suggested students will be encouraged to increase their work rate, and contribute to and get more from sessions.

Teacher Reflections

Despite the positive results there are a few points that are noteworthy. Students on average attended four out of six VOH sessions. The times and days of the sessions were agreed mutually by the moderator and the students, However, 40% of participants attended only half or fewer sessions, therefore possibly impacting negatively on the accessibility rating. This was seen as a problem since it would be difficult to develop a sustained and quality relationship with the students even over a short period of time, in this case three weeks. Last, most sessions attracted over 30 students at any one time so the ability to personalise the learning (meeting their individual needs) for students was problematic, consistent with the findings of Hooper et al., (2006). This issue was possibly a contributing factor to a lower score for "teacher responded to my questions adequately."

Active and Collaborative learning

The offering of VOH through synchronous e learning demonstrates relatively strong involvement by students in their learning process and/or forming meaningful interactions with their teachers and peers (see Table 2).

Table 2

Mean Response for “Teacher-Student” and “Student-Student” Interactions

Teacher-Student Interactions	Student-Student Interactions
Always responded to teacher questions (77%)	Always responded to questions from peers (65%)
Always involved in activities set by teacher (86%)	Students learn from each other (92%)
VOH more effective when teacher involved in discussion (93%)	Involved in discussions when peers were participating (77%)

The findings are significant as interactions between students and their peers and with their teachers have been associated with numerous positive outcomes, including academic success, learning and personal development and sense of belonging (Johnson et al., 2007; Meeuwisse, Severiens, & Born, 2010; Young & Sax, 2009). Further, Table 2 suggests students were participating in a learning community developing connections between students to support their learning and social development (Tinto, Love, & Russo, 1993), thereby encouraging students' sense of belonging (Krause, 2005).

Teacher Reflections

The role of the teacher is arguably the most critical element to promote student engagement. The decision to use *Blackboard Collaborate!* played an instrumental role to encourage student involvement in activities. *Blackboard Collaborate!* is a software package that accommodates the provision of real-time interaction and collaboration, thereby permitting many of the advantages afforded by the traditional face-to-face classroom (Crofton, Rogers, Pugh, & Evans, 2007). This allowed me to extend teaching practices that I adopt in the classroom (student centred approach) to beyond the classroom. I played the role of a facilitator (providing structured tasks and guidance when required, asking questions, setting rules, etc.) so students could construct new knowledge through social interactions.

The interactive nature of the software program allowed students to share, negotiate and review their existing knowledge, allowing for more meaningful understandings of the curriculum. An interesting point worth noting witnessed students with high ability collaborating with the low ability students assisting them to solve problems that they might not have been able to do on their own. This was seen as significant as the low achievers had access to a valuable resource, in addition to the teacher, which could lead to greater persistence, understanding and academic success for these students.

A further point worthy for discussion was the initial orientation of the software program given to students prior to implementation. Students were shown an actual demonstration of the features of the program allowing them to gain familiarity with the program. Coupled with the experience the teacher gained

through previous exposure to the program led to more efficient and effective interactions between all parties.

Students Engage in Deeper Educational Experiences and Broaden Their Academic Capabilities

Table 3

Mean Response for “Teacher and Content” and “VOH Promoting Higher Order Thinking Skills”

Teacher and Content	VOH Promoting Higher Order Thinking Skills
Teacher expected high standards (87%)	VOH increased my knowledge (78%)
Teacher supported students to achieve these high standards (91%)	VOH increased my understanding (92%)
Teacher extended students ability through challenging activities (88%)	VOH increased my problem solving skills (90%)
	VOH allowed me to apply my skills (85%)
	VOH allowed me to justify my answer (90%)
	VOH allowed me to link concepts to solve new problems (88%)
Overall VOH created a rich and challenging educational experience (92%)	

The high mean response rates for teacher expecting and supporting students to achieve high standards coupled with providing challenging activities is likely to result in higher student engagement levels (Bryson & Hand, 2007). There is evidence suggesting that VOH promoted deeper learning as compared with surface learning given the mean response rates for understanding, problem solving, applying, evaluation and synthesis as compared with increasing knowledge. Students engaged in deeper learning suggests more meaningful student engagement (Hoskings, Cooke, Yamashita, McGinty, & Bowl, 2008). Wozniak and Silveira, (2004) provide further insights claiming that provision of challenging learning activities can facilitate deeper learning and therefore higher order thinking skills and collaboration between students.

Teacher Reflections

The promotion of higher order thinking skills afforded by VOH was extremely satisfying as students become more engaged in their studies thereby contributing to a greater student experience. Equally important are that students are developing and/or enhancing their communication and problem solving skills, representing two core graduate capabilities at VU.

Furthermore, students are engaging in meaningful interactions with their peers from various backgrounds in developing useful skill sets and capabilities that can be drawn upon in their professional life.

Overall the results from this study suggest that students identify transactional engagement as a fundamental element in effective engagement and learning and support the findings of Russell and Slater (2011).

Limitations and Future Research

This study was not without its limitations. The small sample size of this study may lead to sample bias. Further, this study was conducted at only one university so it may not be feasible to form generalisations resulting from the findings.

Conclusions / Implications

The implementation of VOH using *Blackboard Collaborate!* has unequivocally shown to have a positive impact on transactional engagement by providing a new communication channel for students outside the classroom. The findings suggest teachers who provide appropriate online technologies (student centred), coupled with a supportive, productive and safe environment, promote active and collaborative learning and higher order thinking skills. In turn, students become more engaged in their learning process leading to a greater student experience at university and enhancement of their graduate capabilities so they can better function as productive members of society.

The successful implementation of VOH as an effective strategy to promote transactional engagement beyond the classroom may provide incentive for other colleagues to follow suit. In particular, colleagues who are technological competent and not resistant to adapt to change should give this concept due consideration as it can further enhance the students' experience, quality of education and graduate capabilities. Teachers' reflections identifying benefits and problems from this study can be initially used to inform future planning at the faculty level. On a broader scale, this study may encourage the university to undertake a cost-benefit analysis to explore the possibility of introducing VOH across the whole university.

Future research in this area can focus on whether engagement levels vary depending on students' personal attributes. In addition, a longitudinal study over multiple campuses spanning across several years would add and enhance significant data and research reliability.

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