Assignment Submission Practices and Course Management Strategies in the Blended Classroom: What's Going On?

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Abstract:

Learning technologies are playing an increasingly critical role in course delivery and assessment of student learning in higher education. As part of an 8-month SoTL leadership program at UBC, the first author conducted a classroom SoTL inquiry which focused on on-line assignment submission practices by undergraduate students at the University of the West Indies. Students typically invest a lot of time and energy toward course assignments. However, final on-line submission practices can present barriers and hinder the quality of students' work. Very little research has investigated the nature and scope of assignment submission practices in blended classrooms. This paper investigates assignment submission practices and course management strategies in a [3rd year] communication theory course at the University of the West Indies. Students were invited to submit course assignments through either online or traditional hard copy modes. Data on the students' interactions with the online resources and their assignment submissions were collected, analyzed and compared. Data indicate student interactions with the resources was of a high level, that fewer assignment submissions were received on-line, and that on-line submissions tended to be of lower quality than traditional hard copy assignment submissions. Useful support and preparation strategies are suggested to help students embrace online technology in blended classrooms. Further reflections from this study highlight effective transitions from faculty development programs on SoTL to classroom inquiries in blended learning environments.

Key Words:

SoTL, educational technology, blended learning environments, student assessment, assignment submission practices.

Introduction

Learning technologies are playing an increasingly critical role in the university classroom, and this role lends itself to important Scholarship of Teaching and Learning (SoTL) investigations. As part of an 8-month SoTL leadership program at UBC, the first author conducted a classroom SoTL inquiry that focused on enhancing online learning practices by undergraduate students in a 3rd year communication theory course at the University of the West Indies. The context of the study was a Self-Directed Learning Project (SDLP).

SoTL Investigations: Facilitating Online Learning in the University Classroom

Various studies have investigated the use of learning technologies in the university classroom (Elton, 2003; Elton & Johnson, 2002; Knight, 1995; Lakos, 2005). Some have focused on technology use (Brown, Ball & Race, 1999; McGuire, 2005; Millwood & Terrell, 2005). Others have focused on writing issues and challenges (Elander et al., 2006; Shay & Javitz, 2005; Crook, Gross & Dymott, 2006; Knight & York, 2006). Educational technology "encompasses any means of communicating with learners other than through direct, face-to-face, or personal contact" (Bates & Poole, 2003, 5). The reasons for using technology in this way include the promise of delivering increased access, and improving quality and efficiency in an increasingly competitive market, but the need for rigor in studies of the outcomes of the use of technology has been also noted (Benoit et al., 2006). The use of technology enhances actual student learning (Krentler & Willis-Flurry, 2005) and significant and non-significant differences exist when traditional courses and courses using technology are compared (Benoit et al., 2006). The investigation of technology use in a communication context is limited to the effect of communication apprehension and speaking skills in traditional and online public speaking courses (Clark & Jones, 2001), and has been found deficient in problems with sample sizes, outcome measures, and reliance on non-quantitative and self-report data (Cradler, 2003). Thus, there are mixed views on the role of technology in enhancing learning, and there is a need to understand the application of this issue in a communication teaching and learning environment.

Technology use has been viewed positively, but its application to different modes of assignment submission has received less attention. For example, studies have focused on student perceptions suggesting cautious optimism (Schacter, 1999), have provided evidence of enhanced learning (Kulick, 1994; Sivin-Kachala, 1998), and the potential impact of student characteristics as moderators (Greenagel, 2002) and have found that students' comfort and familiarity with technology affect student learning (Piccoli, Ahamad, & Ives, 2001). Krentler and Willis-Flurry (2005), more recently, focused on the actual effect of technology use on learning outcomes using an objective measure such as student performance, and the moderating effect of student and course characteristics. These researchers found support for the "generally held tenet that the

use of technology can and does enhance student learning" and extended "this tenet by demonstrating the relationship through an actual measure of student learning" (pp. 320-321). Despite the research so far, it is not clear why similarities or differences may exist in student traditional and online assignments in a blended learning environment.

Blended Learning Environments in the University Classroom

Blended learning, sometimes called hybrid learning or mixed learning, combines multiple approaches to learning. These approaches may include a combination of technology-based materials and face-to-face sessions used together to deliver instruction such as when an introductory lesson is supported by online materials (Blended learning, 2007) and when more guidance is provided early in the process and reduced as learners become more experienced (Kirschner, Sweller & Clark, 2006). Advocates of blended learning point to three key models of implementation: skill-driven, behavior- or attitude-driven and competency-driven models (Valiathan, 2002). The skill-driven model, for example, places emphases on faculty-student interaction through email, discussion forums, and face-to-face meetings with self-paced learning, such as Web-based courses and books. In this approach learner interaction with the instructor or facilitator is a catalyst for learning. The behavior-driven or attitude-driven approach "blends traditional classroom-based learning with online collaborative learning events". This approach depends on collaborative learning supported by face-to-face sessions or technology-enabled collaborative sessions. The competency-driven model focuses on the application of tacit knowledge to practical situations supported by mentoring. This approach is based on learners' interaction with experts on the job, through a mix of live mentoring and online support.

According to Heinze and Proctor (2004), blended learning is learning that is facilitated by the effective combination of different modes of delivery, models of teaching and styles of learning, and founded on transparent communication amongst all parties involved with a course. Within a higher education context, however, it is not clear whether there are similarities or differences in student responses to traditional and online assignments in a communication context. If such similarities or differences exist, it would be useful to understand the factors which might account for those similarities or differences.

Dzubian et al. (2004, 2-3), in sharing their experience at the University of Central Florida, refer to a continuum of blended learning that ranges from web-enhanced courses that make significant pedagogical input without reduced seat time and blended learning that combines face-to-face learning with technology with reduced seat time. They recommend that blended learning should be viewed as "a pedagogical approach that combines the effectiveness and socialization opportunities of the classroom with the technologically enhanced possibilities of the online environment, rather than a ratio of modalities" (p. 3). In this way, they contend, blended learning has implications for instructional design, such as more student-centered rather than lecture-centered curricula, increased interaction between students and teachers especially outside of class hours and office hours, and integrated formative and summative assessment mechanisms for students (p. 3).

Although there is much support for technology use in teaching, and the use of blended learning, in the case of blended instruction using traditional lectures and online technology, the evidence seems to be less dichotomous and less straightforward. The study's purpose was two-fold. First, the similarities and differences between online and traditionally submitted assignments were compared as a means of assessing student participation. Second, student performance on the assignment was compared to performance on other measures to see whether there was any association between participation in online support and performance in the course.

Student Engagement and On-line Learning

Aspden and Helm (2004) studied the effect of blended learning environments (BLEs) on student engagement and interaction. Their review (pp. 246-247) showed that BLEs can encourage "high contact" situations (Naisbitt, 1999), and draw staff and students together virtually and physically (Cairncross, 1997; Graetz & Goilber, 2002). They also argued that while access to information is important, intellectual development is fostered through active engagement and interaction with others (Palloff & Pratt, 1999). BLEs also have the potential value of encouraging contact and co-operation between staff and students highlighted by the use of seven principles for good undergraduate education (Chickering & Gamson, 1987; Chickering & Ehrmann, 1996) as demonstrated by the application of these principles (Skill & Young, 2002). Aspden and Helm's (2004) analysis of the range of themes in students' self-report data at Sheffield Hallam found two main themes: connectedness between students and their learning experience and feelings of isolation which prevent effective engagement. They concluded, however, that where there is connectedness, BLEs can provide opportunities for independent work and collaboration and create an expectation of constant access to resources and people that needs to be met (p. 251). Where there are feelings of isolation, BLEs afford opportunities for patching broken contact and connection in two main ways. Students who feel left behind can use the online environment for reflection and wider peer interaction. Students who encounter barriers with online communication can use "face-to-face opportunities for socialization or academic work" (p. 251). Student participation, then, can be defined positively as levels of connectedness, interaction and collaboration which can be negatively affected by feelings of isolation, and broken contact and connection.

Assessment Practices

Ideally assessment and instruction should be related whether they occur in traditional and online environments. Mateo and Sangrà (2007) recommend alternative approaches to assessment in online environments using activities based on assessment for learning principles. These principles focus on outcomes over objectives, competences over content, process over product, and authentic over hypothetical situations. Assessment for learning is distinguished from assessment for grading (Elwood & Klenowski, 2002). Assessment for learning is preferred by educators who are interested in integrating learning with assessment. This can be achieved in online environments when online activities are designed for both learning and assessment. In doing so, they "promote active learning, constructive criticism and knowledge sharing" (Baraka & Rafaelib, 2004). Hu (2007) sums up various ways of assessing online

learning, which include assessing the quantity and quality of online postings (Morris, Finnegan & Wu, 2005; Ho & Swan, 2007), analyzing transcripts from asynchronous online communications (Henri, 1992), and peer assessment (Falchikov, 1995). Hu also notes that online learning is also assessed by examining "social presence" in online discussions (Rourke, Anderson, Garrison & Archer, 1999), using survey-based research linking learners' perceptions of teaching to their satisfaction and perceived learning (Shea, Pickett & Pelz, 2003), by conducting interaction analysis (Gunawardena, Lowe & Anderson, 1997) and by community of inquiry (Garrison, 2003). Using reflective practice in online learning is one way of integrating learning with assessment (Russell, Elton, Swinglehurst & Greenhalgh, 2006, p. 495). Hu (2007) found that building and creating knowledge, and questioning peers and knowledge sharing were cited by students as their best contributions to online learning. Both online and traditional learning contexts offer possibilities for the use of assessment for learning, but a hybrid learning environment seems to enrich and deepen the opportunities with the support of technology, by drawing on the best of both worlds and compensating for the potential limitations of either environment.

Quality assessment of students' work embodies comparing learning outcomes with learning objectives, providing timely and appropriate feedback to learners, encouraging students to use feedback to focus on improvement rather than on performance only, and using student performance and feedback to modify learning and assessment activities. Student perception of feedback is often overlooked (Struyven, Dochy, & Janssens, 2005) and may not always be the same as their instructors' (Maclellan, 2001). Feedback is important in any learning environment (Fredericksen, Pickett, Shea, Pelz, & Swan, 2000; Gilbert, Morton, & Rowley, 2007; Thurmond & Wambach, 2004; Vonderwell, 2003), but it seems especially critical in online contexts. In online learning environments, students report less satisfaction with the characteristics of online feedback on essays, citing its impersonal nature(Gilbert et al., 2007; Mullen & Tallent-Runnels, 2006), lack of face-to-face interaction, and a sense of distance from their instructor that can result in decreased motivation and learning (Mullen & Tallent-Runnels, 2006; Song, Singleton, Hill, & Koh, 2004; Thurmond & Wambach, 2004). The technology-based mode of communication can affect students' perceptions of the online process and instructor feedback. McVey (2008, 41) found that students reported the use of a tablet pc and inking technology resulted in positive views of this process and a perception of the feedback as "highly personalized and as helping them to focus on the problem areas of their writing. Additionally, the majority reported using the feedback to improve their performance on later assignments." Student attitudes to the online process and feedback could affect their choice of submission mode, since a preference for the traditional format may signal a preference for face-to-face interaction.

Student Attitudes

Students' attitudes to learning and assessment in online and traditional classrooms vary, and such variation may be reflected in blended learning situations, but it is not clear how students feel about learning and assessment in a blended learning classroom. Perceptions of instructor affective support were found to differ significantly in traditional and online contexts, and students ranked instructor affective support higher in the traditional classroom, but instructor affective support had a stronger relationship to

student satisfaction in the online classroom (Mullen & Tallent-Runnels, 2006). Students' perceptions of their learning in online and hybrid formats also vary and point to a link between these perceptions and their instructors' underlying pedagogical assumptions (Webb, 2008). However, Arbaugh et al's (2009) review of traditional and online business courses found no differences when desired learning outcomes were compared, but differences occurred in other course aspects. Student attitudes to learning and assessment in a hybrid environment may be reflected in their use and preference for online resources and their selection of submission format.

Student Motivation

Student motivation in online and traditional classes appears to vary as well. This variation has implications for attitudes towards assessment, and it could influence the students' response and choice of submission format. A study of the link between students' academic motivation and social ability in online learning (Yang, et al, 2006) noted the presence of five defining factors of social ability: "perceived peers social presence, perceived written communication skills, perceived instructor social presence, comfort with sharing personal information, and social navigation" and that "different motivational constructs vary in their relationships with the multiple social ability factors." The researchers described three motivational factors: intrinsic goal orientation, self-efficacy and task value. Accordingly, "Intrinsic goal orientation is related to perceived peers' social presence. Self-efficacy explains the variance of perceived instructor social presence and comfort with sharing personal information. Task value is associated with social navigation and both perceived peers and instructor social presence." In another study, self-efficacy emerged as the only variable in which there were no reported differences among variables studied in online and traditional environments (Mullen & Tallent-Runnells, 2006). It seems then that student motivation in learning can be affected by five factors of social ability, and the relationships between three aspects of social ability and three motivational factors. The social ability construct, and the role of motivational factors and self-efficacy may influence how students feel about learning in traditional, online and hybrid environments and their preference and use of online and traditional submission formats.

Context of Study

Students were enrolled in a third-year communication theory course for communication majors. The course was a first semester requirement for the B.A. in Communication Studies, taken with four other courses in communication and other elective areas. Classes were conducted over a 13-week period with 3 weekly contact hours using 2-hour whole class lectures and discussions, 1-hour small group workshops and asynchronous online course support. Students were invited to use the online resources to support their learning, interact with each other and maintain contact with their instructors and tutors on course content, process or activities. All students had access to the course management system and had used it in other courses in the two previous years of study. There was an in-class orientation to the online resources and demonstrations on logging-in, navigating, locating resources and posting questions and assignments online. Assignments were introduced and discussed in class, and students were required to undertake follow-up reading of lecture notes and readings, authentic

resources based on newspaper reports and stories, hypothetical cases, discussion forums, and online interactions with each other, their tutors and course instructor. Students were invited to submit their assignments online using a web portal or by hard copy. This study focuses on the students' essay submission practices and explores the link with course management strategies in this course.

Very little research has investigated the nature and scope of assignment submission practices in blended classrooms. This paper represents a preliminary study based on initial findings and reflections on assignment submission practices and course management strategies in a [3rd year] communication theory course at the University of West Indies, St. Augustine Campus, Trinidad.

Method

The use of online resources was investigated over a two-week period near the end of the first semester when students were required to submit an assignment in a 3rd year Communication Theory course at the University of the West Indies, St. Augustine Campus, Trinidad. The following research questions guided this SoTL investigation:

1. What percentage of students selected on-line submissions for assignments?
2. What comparisons can be observed from the quality of student work through on-line or traditional methods of submission?
3. What are student experiences about on-line or traditional methods of assignment submissions?

Data Collection

Data were collected from fifty-five Communication Studies majors who were enrolled in a communication theory class at one of the campuses of a regional university. An online course management platform, Moodle, was employed to encourage online learning in this blended classroom. Students were invited to submit a course assignment through online or traditional hard copy methods. In addition to the lecture format of the course, online materials were posted and students were shown how to access materials on-line. The online support materials included a summary of the lecture notes, PowerPoint presentations, literature sources and assignment information. Finally, during class time, students participated in informal in-class group discussions and oral presentations. Formal reporting was required through group and individual submissions. For example, each group nominated a person responsible for posting the group's response to the assignment online.

Assignment submissions were collected, analyzed and compared. In addition students' response format was compared to their course grade for the assignment, grade for attendance and participation, coursework, examination, and final or composite grade in the course.

Results

Question 1: What percentage of students selected on-line submissions for assignments?

Data in Table 1 indicate that fewer assignment submissions were received on-line, and that on-line submissions tended to be of lower quality than traditional hard copy assignment submissions.

Students submitted the group assignment online (Assignment 1). However, some opted to submit their individual assignments (1, 2 or 3) online or use the traditional typed hard-copy format. Students used more traditional than online modes to submit individual assignments. Table 1 shows that group assignments were submitted online on 3 occasions, but the traditional method of delivery (hand –written or typed essay) was used on 0 occasions. For individual assignments, Table 1 also shows that fewer assignments were submitted online (n=7, 13%), than by traditional means (n=44, 81.5%). A few students also submitted the assignment in online and traditional formats (n=3, 5.5 %).

Table 1 Online and traditional submission.

Assignment	GROUP Online submission	GROUP Traditional submission	GROUP Online & Traditional Submission	INDIV Online submission	INDIV Traditional submission	INDIV Online & Traditional submission
Total	3	0	0	7	44	3
Class No.	54	54	54	54	54	54
%	100	0	0	13	81.5	5.5

Table 2 shows the overall blended learning context and type of interactions. For example, students' interactions (use of email, blogs, and discussions) of the online resources included 857 online views by 54 students. The average number of interactions by these students was 14.28 occasions. Students accounted for 71.18 % of the views of the resources compared to 18% of the views by staff.

Table 2 Report on Use of Online Resources

Nov 12-23	All Records	Student Interaction Records	Student Users*	Student Mean Usage	Staff Records	Staff Users*	Staff Mean Usage
N	1204	857	60*	14.28	347	18*	19.28
%	100.00	71.18			28.82		

*Note: This figure includes repeater users

Taken together, the data in Tables 1 and 2 indicate a high level of student use of the online resources in the course during the period of the assignments, but a higher tendency to opt for a traditional mode of assignment submission over online submission. These findings suggest that although there is a frequent online use of the resources, there is a lower than expected use of the online mode of submission. Further, the data suggest a pattern of preference for online submission of group assignments, over a preference for the traditional hard-copy mode for individual assignments. The implications of these findings are discussed later.

Question 2: What comparisons can be observed from the quality of student work through on-line or traditional methods of submission?

Data in Tables 3 and 4 indicate that on-line submissions tended to be of lower quality than traditional hard copy assignment submissions. An analysis of online and traditional assignment submissions was undertaken. Table 3 shows the results for a sample of 26 traditional submissions obtained from the tutors of two of the four workshop groups in the class of 54. The assignments were assessed by the research using a rubric that focused on four issues: the identification of a question or issue required in the assignment, the presence of a thesis or argument, evidence of understanding of relevant concepts to support the thesis/argument, and evidence of application of relevant concepts to support the thesis/argument. The results show that for traditional submissions most included a required question/issue (88.5%), a thesis/argument (76.9%), evidence of understanding of relevant supporting concepts (57.7%, and evidence of application of relevant supporting concepts (57.7%).

Table 3 Qualitative Analysis of Individual Traditional Assignments

Assignment	N	Question/issue present			Thesis/ argument present			Evidence of understanding of relevant concept(s) to support thesis/ argument			Evidence of application of relevant concept(s) to support thesis/ argument		
Individual		Yes	Part	No	Yes	Part	No	Yes	Part	No	Yes	Part	No
1.1 Jenny	6	5	1	0	5	1	0	4	2	0	4	2	0
1.2 Laura	9	7	0	2	7	2	0	7	2	0	7	2	0
1.3 Sharon	8	8	0	0	5	3	0	3	5	0	3	5	0
2 Election results presentation	3	3	0	0	3	0	0	1	2	0	1	2	0
3 Election results interpretations	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	26	23	1	2	20	6	0	15	11	0	15	11	0
%	100	88.5	3.8	7.7	76.9	23.1	0	57.7	42.3	0	57.7	42.3	0

Tables 3 and 4 provide data on individual and group online assignments. According to the data, using the same rubric applied to traditional submissions, the answers were of a lower quality as far as the rubric was concerned, were generally shorter than the traditional responses, had less concern for grammar and expression, and were fewer in number for online individual (n=7) and group (n=3) submissions than traditional ones. The results show that for online individual submissions most included a required question/issue (71.4%), a thesis/argument (57.1%), evidence of understanding of relevant supporting concepts (57.1%), and evidence of application of relevant supporting concepts (57.1%). See Table 4.

Table 4 Qualitative Analysis of Individual Online Assignments

Assignment	N	Question/issue present			Thesis/ argument present			Evidence of understanding of relevant concept(s) to support thesis/argument			Evidence of application of relevant concept(s) to support thesis/argument		
Individual		Yes	Partial	No	Yes	Partial	No	Yes	Partial	No	Yes	Partial	No
1.1 Jenny	0	0	0	0	0	0	0	0	0	0	0	0	0
1.2 Laura	2	2	0	0	1	0	1	1	0	1	1	0	1
1.3 Sharon	2	2	0	0	2	0	0	2	0	0	2	0	0
2 Election results presentation	1	0	0	1	0	1	0	0	0	1	0	0	1
3 Newspaper decoding options	2	1	1	0	1	1	0	1	1	0	1	1	0
Total	7	5	1	1	4	2	1	4	1	2	4	1	2
%	100	71.4	14.3	14.3	57.1	28.6	14.3	57.1	14.3	28.6	57.1	14.3	28.6

The results show that for online group submissions most included a required question/issue (67%), a partial thesis/argument (67%), partial evidence of understanding of relevant supporting concepts (67%), and partial evidence of application of relevant supporting concepts (67%). See Table 5.

Table 5 Qualitative Analysis of Group Online Assignments

Assignment	N	Question/issue present			Thesis/ argument present			Evidence of understanding of relevant concept(s) to support thesis/argument			Evidence of application of relevant concept(s) to support thesis/argument		
Individual		Yes	Partial	No	Yes	Partial	No	Yes	Partial	No	Yes	Partial	No
1.1 Jenny	2	1	1	0	0	2	0	1	1	0	1	1	0
1.2 Laura	0	1	0	0	0	0	0	0	0	0	0	0	0
1.3 Sharon	0	0	0	0	0	0	0	0	0	0	0	0	0
2 Election results presentation	1	1	0	0	1	0	0	0	1	0	0	1	0
3 Newspaper decoding options	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	3	2	1	0	1	2	0	1	2	0	1	2	0
%	100	67	33	0	33	67	0	33	67	0	33	67	0

The results presented in Tables 2-5 indicate that there is a qualitative difference in online and traditional submissions. This result suggests that there may be different approaches to each type of submission. Another result is that among online submissions, there is a higher quality of attention to the question/issue in online group submissions than in online individual submissions. In 71% of online individual submissions the question/issue was present in the essay, but present in 67% of online group submissions. There was a reverse pattern for the presence of a thesis/argument: 57.1% vs. 33%. By contrast, as far as providing evidence of understanding and application of relevant concepts is concerned, individual online submissions were of a higher standard than online group submissions: 57.1 vs. 33%.

Question 3: What are student experiences of on-line or traditional methods of assignment submissions?

According to the data in Table 6A, student performance based on individual mean scores earned on the assignment for this lecture was compared with individual mean scores earned for coursework performance, final examination performance, composite course grade, and attendance and participation. In Table 6B, correlations among performance measures are strong. For example, student performance on the assignment (online and traditional) correlated strongly with the attendance and participation grade (0.73), and the class mean coursework (0.85), class mean examination performance (0.71), and mean class final grade (0.83). The strongest correlation existed between mean class coursework grade and mean class final grade (0.97).

Table 6A Student Performance

Performance Measures (n=54)	CLASS Score/Max (SD)	CLASS Score%
Mean (SD) Assignment Grade	5.6/10 (2.4)	56.0
Class Mean (SD) Attendance and Participation Grade	5.8/10 (2.1)	58.0
Class (SD) Mean CW Grade	36.9/60 (12.0)	61.5
Class (SD) Mean Exam Grade	24.9/40 (9.2)	62.3
Class Mean (SD) Composite Grade	61.4/100 (21.0)	61.4

Table 6B Correlations among Performance Measures: Pearson's r

	Assignment 5 Mean Grade	Attendance & Participation Mean Grade	Class CW Mean Grade	Class EX Mean Grade	Class Final Mean Grade
Assignm	NA	0.73	0.85	0.71	0.83

ent 5 Mean Grade					
Attendance & Participation Mean Grade		NA	0.89	0.71	0.87
Class CW Mean Grade			NA	0.87	0.97
Class EX Mean Grade				NA	0.94
Class Final Mean Grade					NA

Preliminary results, therefore, suggest that students prefer traditional submission methods, produced lower quality online work and appeared to need better support for interacting with online resources in submitting online assignments.

Discussion

The results suggest that participation by students as expressed in their response to online resources and assignments, and their performance in the course can be linked to similarities and differences between their traditional and online modes of activity. For example, the results on response to online technology show low use of the online resources such as email, blogs and discussions. Perhaps, it would be useful to compare the use of these online resources with face-to-face use of off-line resources such as questions, interactions and discussions in the lectures and workshops, but the study's finding on online resources was limited by the lack of a rigorous record of self-report and observational data collected from reflection and face-to-face interactions as demonstrated elsewhere (Aspden & Helm, 2004). Further work in this area will need to be refined to capture comparative data on online and offline activity, and to use such data to advance a conclusive statement that does not rely on anecdotal or intuitive evidence. As it stands there is a sense that there may have been more connectedness and collaboration between students and their face-to-face learning experiences than their online ones, but this will need to be verified by a more rigorous design. Ironically the Moodle technology tracks views, and provides summary statistics on activities, making it apparently easier to record such data than data on interaction in lectures and workshops, but it may be possible to use other technologies such as self-report diaries, questionnaire and interview surveys, and observational schedules to capture such data. The methodological issue of using different types of data based on different "technologies" will need to be confronted.

The research methodology consisted of analysis of texts such as student scripts and records of online use and activity. To address the challenge of comparing online and offline activity using data from different "technologies" such as electronic records of

online activity and manual notes of classroom activity, the design should recognize the limitations of each approach, and adopt a mixed methods design that seeks confirmation, cross-checking of data involving researcher and research participants. The study's findings were limited by a design that did not initially set out to collect self-report and observational data on offline activity to compare with online activity. In order to address the present limitations, for future research it is recommended that a refined design could consider including self-report data from students' journals (Falchikov, 1995; Aspden & Helm, 2004) and/or peer assessment and observation data from transcripts of asynchronous online communications (Henri, 1992; Aspden & Helm, 2004).

Student response to assignments shows a preference for traditional over online submission. Is this finding related to the issues of access, training and preparation, familiarity and degree of comfort and satisfaction with using online technology as opposed to other traditional technologies of handwritten and typed written essays? Aucoin (2000) has identified two critical success factors in online learning: establish pre-requisites for faculty and student support. The extent to which these factors were present went little beyond policy statements and relatively little practice in previous versions of the course outline, but was non-existent in the current version of the course outline. This situation and the novelty of using online technology to support online teaching of the course by a guest lecturer may have influenced the findings of the study. Thus, expectations about the technology-ready requirements of the course for staff and students and the current experience may have militated against students' interest in online submissions. In addition, reported instances of access and uncertainty as evidenced in students' emails, classroom, tutor and student feedback to the lecturers, and the rescheduling of assignments suggest that these critical success factors were not present. A follow-up study on these issues could undertake a survey of the student experience along the lines of other investigations of the e-learning experience (Gilbert, Rowley & Morton, 2007; Shea, Pickett & Pelz, 2003), and reflect on what students regard as valuable aspects of that experience (Hu, 2007; Russell, Elton, Swinglehurst & Greenhalgh, 2006).

This situation may be associated with the notion of technology acceptance among staff and students and the Technology Acceptance Model (TAM) which posits that perceived usefulness, perceived ease of use and a subjective norm can influence behavioral intention and eventual behavior (Keller, 2005). TAM and other models such as Bandura's Social Cognitive Theory (the idea that computer self-efficacy or the individual's belief that she/he can use the computer and outcome expectations influence affect or positive feelings and anxiety or negative feelings, and usage or the degree of use of information system) and a Unified Theory of Acceptance of Use of Technology (which combines eight technology acceptance models) may account for the extent to which staff and students are ready to accept technology use. Ultimately they can be used to account for the nature and degree of participation displayed.

There appears to be more rigor and a higher quality of response to the assignments submitted in the traditional manner as opposed to those submitted online. Is this related to different psychological and sociological orientations to traditional and online modes of assignment submission? Is there a perception that online submissions require less

care? Do students spend less time on online responses than traditional ones? Do they proofread and edit more in traditional responses than online ones? One would expect that online submissions would be prepared in advance and then uploaded, rather than being completed online in real-time. However, it is not clear whether these factors were present or what effect they might have had. The evidence is clear that there were differences in quantity and quality between traditional and online submissions. Self-efficacy appears to be an important distinguishing motivational variable (Yang et al., 2006; Mullen & Tallent-Runnels, 2006). Further exploration of this variable and these questions and issues is recommended. Using a qualitative or mixed methods design may account for the preference for traditional submission.

A comparison of student performance in the course based on scores earned for the assignment for this lecture, attendance and punctuation, coursework, final examination, and final or composite components was undertaken. The findings show minimal variation in performances suggesting that the assignment performance was similar to other indices, but does not account for the student preferences for traditional over online submission. Frances et al (1999) examined three environmental (increased demand, diversity of access, and the challenge of reduced funding) and three educational content factors (cost savings created by IT, needed planning and budgeting for IT and significant differences between IT and non-IT use) which are the basis of conventional wisdom about the perceived value of instructional technology. They found that, interestingly for the sixth assumption the bulk of the 355 studies from 1928 to 1999, had found no significant differences in educational outcomes when the results of instructional technology were compared with conventional methods of delivery. However, they showed that on the basis of a survey among students on two campuses that there were no significant differences among outcomes measures such as grade performance and career prospects, but wide differences among subjective measures such as student perception of the quality of instruction using conventional and instructional technology, where the latter was regarded as inferior. They contend that the human factor may account for the degree of satisfaction with conventional over IT modes of delivery. This factor may account for the apparent lack of interest in online modes of communication and response to assignments as compared to conventional modes of delivery which appear to provide more contact, interaction and collaboration.

Conclusion

In conclusion, the main finding that the use of technology in a blended learning communication theory instructional context reveals similarities and differences between online and face-to-face modalities such as low use of online resources for communication preference and lower quality of work. Technology use seems to hold less interest for students and may be accounted for by theoretical explanations of technology acceptance, similarities and differences in student performance, and human factor subjective issues that account for wide significant differences that challenge conventional wisdom and research. Taken together these explanatory factors can account for the nature and degree of student participation which seems to be not better in a technology supported blended learning than a traditional delivery context. Further comparative work and more rigorous designs are needed to test this hypothesis.

This study provided an opportunity for reflective and systematic exploration of students' assignment submission preferences in the context of assessment for learning. Unanswered questions about the students' experience and their perceptions need to be investigated further. The implications for the first author's SoTL inquiry include the development of a critical ongoing appraisal of approaches to assessment and a reconsideration of the instructional philosophy and procedures for instructional delivery in a blended learning context.

In summary, then, the SoTL experience within the UBC Faculty program provided a meeting point for theory and practice, and in turn facilitated classroom-based research to enhance on-line submission practices of students' work. Thus, further reflections from this study suggest that faculty development programs on SoTL leadership can have a positive impact when faculty members are engaged in a community of practice and predisposed, enabled and reinforced in their efforts to make the transition from SoTL theory to practice.

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