Blackboard discussions in online courses – where is the value?

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Abstract: This research set out to determine how SIT2LRN facilitators use Discussion Boards for assessment and to promote online learning within courses. Facilitators’ practice was evaluated using a mixed methodological approach supported by a review of the literature. Secondary data was obtained through examination of course outlines and Discussion Board content. Primary data came from a quantitative questionnaire and two focus groups. The research revealed some facilitators used Discussion Boards to promote online engagement of students, and, in limited cases, student creativity and critical thinking. Facilitators noted a correlation between students’ engagement with Discussion Boards and higher grades. Through the Discussion Boards, facilitators encouraged interaction, collaboration, dialogue and reflection among students. They aimed to align course learning outcomes and discussion topics, encourage peer-to-peer feedback, promote camaraderie, encourage sharing of work, and provide motivation. The research found facilitators in higher level courses had more assessed Discussion Board activities, although there were diverse approaches to assessment. A correlation between assessment of the activity and student interaction was noted. The research concluded a more consistent approach in how facilitators use Discussion Boards is needed, together with clear guidelines for alignment of the activities with course learning outcomes and formative and summative assessment.

Keywords: Discussion Boards; Blackboard; online learning; facilitation; assessment.

Background

The Southern Institute of Technology (SIT) is a government accredited tertiary provider of programmes from certificate to postgraduate levels, offering accessible and flexible online qualifications across the New Zealand Qualifications Framework (NZQF) to students in New Zealand and overseas. Programmes are managed by SIT’s distance learning faculty, SIT2LRN, and supported by about 50 academic facilitators, who facilitate papers, write and moderate courses. SIT2LRN uses Blackboard to provide a web-based virtual learning environment for online students who vary in age, work and family commitments, leading them to choose this environment for study. As Stavredes (2011, p.3) notes, online learning has mainly “focused on non-traditional, adult learners.”

Discussion Boards are a feature of SIT2LRN courses. Defined by Bikowski and Kessler as “an electronic forum in which people with common interests can share comments and questions on specific topics” (2002, p. 27), a Discussion Board provides a platform for students to interact with each other. Advantages are noted by Katrina Meyer (2007), who says students can “take time and care to reflect” (p. 65) before making a response, as a result, responses are “more reasoned, providing more information and perhaps deeper analysis” (p. 65) than a face-to-face discussion, and there is the opportunity for “quieter students to open up online” (p. 65).
The Research Project

This research answers the question “How do SIT2LRN facilitators use Discussion Boards for assessment purposes, and to promote online learning, within their courses?” The research explored how facilitators at SIT2LRN use Discussion Boards as part of Level Four to Seven courses, and evaluated the extent they were used for assessment, and to promote online learning, within their courses.

Students have access to all contributions made on the Discussion Board. Work assessed on the Discussion Board is seen by all students and the facilitator, while grades are only available to individual students. As part of the research, the literature was examined for examples of how facilitators design Discussion Boards to promote online engagement of students, student creativity and critical thinking; encourage interaction, collaboration, dialogue and reflection among students, and structure and manage assessment.

According to Orlando “student discussion differentiates online education from old correspondence courses” (2017, p. 1), while Means, Toyama, Murphy and Baki say “online learning overlaps with the broader category of distance learning, such as correspondence courses, educational television and video-conferencing” (2013, p. 3). Historically, several research-based studies confirm online learning is at least as effective as traditional classroom teaching (Glance, Forsey & Riley, 2013, p. 3; Saunders & Gale, 2012; Cox & Cox, 2008; DeNeui & Dodge, 2006; Northover, 2002). Commenting specifically on the benefits of online learning, Pishva, Nishantha and Dang (2010, p. 1) note this is because “blended conditions often include additional learning time and instructional elements not available to students in control conditions”.

In an empirical study on Internet-mediated Discussion Boards in tertiary courses, Hong Zhou wrote half of the studies identified participation as a characteristic, noting “a few students dominate the discussion [and] students who do not often talk in face-to-face classroom participated more in online discussion”, and “increasing participation as the online discussion progressed” (2015, p. 11). Finally, citing Gerbic (2006), Zhou contends “the most influential factor for participation was the connection to grades” (2015, p. 11).

In terms of creativity and critical thinking, Yeh and Lahman (2007) say the use of Discussion Boards supports much more than just communication in the learning process. They draw from Harasim (1993), to explain:

> online discussion is considered as a learning environment where students can achieve higher conceptual knowledge than traditional face-to-face learning through interaction of knowledge and experience among students. Online discussion allows an exchange of ideas and enhances students’ interest in other students’ comments. (Yeh & Lahman, 2007, p. 688).

Research by Christopher, Thomas and Tallent-Runnels (2004) highlights the important role of “interactivity in course discussions” and notes the facilitator’s responsibility to “nudge and encourage the construction of knowledge” (p. 171) as they would in a traditional, face-to-face setting. Later, Matheson, Wilkinson and Gilhooly (2012) researched ‘patchwork text’ in Discussion Boards to “facilitate critical thinking and collaborative working” (p. 257). The authors concluded that incorporating this into Discussion Boards “proved instrumental in promoting collaboration and widening the scope of resources available and learning achieved”
Bikowski and Kessler (2002) also identify benefits of using Discussion Boards in the online classroom (p. 27), noting “authentic tasks” that enable students to “create their own knowledge” (p. 28). They describe it as a mutually beneficial communication tool which eliminates the time lapses previous characterising asynchronous learning.

To promote interaction, collaboration, dialogue and reflection, Discussion Boards often contain threaded discussions to encourage students to share comments on a topic. However, these can become unwieldy and require careful management by the facilitator; clear start and end times should be made explicit for the thread. Cox and Cox (2008) warn “student interaction is not automatically generated by the use of threaded discussion boards” (p. 554); a caution consistent with Vonderwell and Zachariah’s (2005) concern regarding the careful management of discussion threads.

“Collaboration” in Discussion Boards is challenging in terms of how it can be managed and assessed. An, Shin and Lim (2009) caution that when students are required to respond to each other’s posts, there is a negative correlation between excess interaction by the facilitator and additional student posts. They found minimum instructor intervention led students to “more freely express their thoughts and opinions” (p. 749). Swan, Shen and Hiltz (2006) support collaborative learning as desirable and valued. Practically, they provide detailed rubrics for assessment of online collaboration (p. 47). However, recognition should be given to the reported value of peer facilitation (student to student) in asynchronous online discussions. Hew and Cheung (2008) examined student online discussions for the level and depth of postings. They found in terms of peer facilitation, “Socratic questioning and sharing personal opinions or experiences” (p. 111) were most commonly used to engage fellow students in the posts.

The practice of structuring and managing assessment in relation to Discussion Boards is not extensively addressed in the literature. Andresen (2009) discussed assessment of asynchronous discussion forums, citing the need for an “incentive” (p. 254) for students to engage. Contributions to discussion forums, he notes, should be “a component of each student’s grade for the course”, a point supported by Palmer, Holt and Bray (2008) who say while students read posts, input is limited to what is required for marks. Northover (2002) also makes a call for aligning marks and grades to Discussion Board posts and advises use of Discussion Boards to attain additional grades for assessment must clearly relate to value in terms of enabling the student to achieve course outcomes. If these perspectives are to be incorporated into practice, then facilitators should pay attention to the clarity, quantity, quality and timeliness of the items to be assessed, together with a clear indication of the value of the contribution to the overall grade.

Green et al. (2006) used a mixed approach to formative and summative assessment via Discussion Boards. They uploaded formative multiple-choice questions, noting overall satisfaction from the students. In the same study, online summative assessment of human anatomy and physiology demonstrated a satisfactory pass rate for the students, and in subsequent years, the pass rate was reported to have increased.

Throughout the literature reviewed, there were useful examples of how facilitators can construct online discussion forums to engage students and design activities to support the development of creative and critical thinking. There were also valuable examples of strategies to enable the facilitator to engender collaborative interaction and reflective dialogue. The
documented use of online Discussion Boards for formative and/or summative assessment of the students, and attendant grading practices, was noticeably under-researched.

**Methodology**

This interpretivist, inductive research adopted a mixed methodological approach, supported by a review of the literature on Discussion Boards. Secondary data was obtained through examination of Blackboard records of course outlines (from 2018). Primary data collection employed a non-variable based questionnaire containing closed and open questions, administered to 50 facilitators involved in NZQF Levels Four to Seven. Sampling for the questionnaire covered all facilitators. Qualitative data was collected through two facilitator focus groups in January 2019. Sampling for focus groups was purposive, based on cross-programme representation. All questions were piloted and collected data was analysed thematically based on verbatim transcripts and correlated to the research questions, demonstrating validity.

**Findings**

The analysis of the content of 202 Blackboard courses in late 2018 showed 95 (47%) had activities on their Discussion Board that contributed marks to the final course result. A further 61 courses (30.2%) had activities that were not assessed. The remaining 46 courses made no use of the Discussion Board other than for introductions or information.

<table>
<thead>
<tr>
<th>Level of course</th>
<th>Number of courses</th>
<th>Assessed Discussion Board sites</th>
<th>% of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 4</td>
<td>48</td>
<td>4 (NZ Cert. in Organic Primary Production only).</td>
<td>8.3</td>
</tr>
<tr>
<td>Level 5</td>
<td>61</td>
<td>33</td>
<td>55</td>
</tr>
<tr>
<td>Level 6</td>
<td>75</td>
<td>46</td>
<td>61.3</td>
</tr>
<tr>
<td>Level 7</td>
<td>18</td>
<td>12</td>
<td>66.7</td>
</tr>
<tr>
<td>Total</td>
<td>202</td>
<td>95</td>
<td>47</td>
</tr>
</tbody>
</table>

Table I. Alignment of courses reviewed with Discussion Board usage.

The higher the course level the more likely it was to have assessable Discussion Board activity (Table I.) One Level 5 course, with 25 activities on the Discussion Board and more than 30 students, had several non-assessable tasks requiring written contributions to a maximum of more than 10,000 words (mainly up to 500 words for each activity). There was no evidence to suggest the facilitator was monitoring these contributions (which students were largely ignoring).

The questionnaire, comprising 16 closed and one open-ended questions, yielded 39 (78%) responses. These responses (Figure 1.) indicated the Discussion Board was overwhelmingly used for what facilitators regarded as summative assessments; 32 (82%) said they did this, five did not and two others indicated it was not applicable to their courses.
The facilitators rated encouraging students to use the Discussion Board for comments and seek further information most highly (Figure 2). The strongest four responses (combining “strongly agree” and “agree” responses) indicated facilitators considered the Discussion Board should be student-centric, and their main role was to mark each individual activity.

Marking each activity as a separate assessment had the most emphatic “strongly agree” response (18) with 14 ticking the “agree” box. Of the 202 Blackboard courses 95 (47%) had between one and 26 assessed activities. Some facilitators were separately accessing 26 activities in addition to assignments, and in some cases these were worth 0.5% of a mark each!

When marking, 24 (66%) of the facilitators said they considered the extent to which each student had been involved in the wider discussion. However, only 11 (28%) were marking a group of activities collectively. A variable approach to how Discussion Board activities were assessed was reflected in this analysis, showing mixed approaches involving assessment of individual activities (the most common), an allocation of marks for each individual activity combined with a mark for overall contributions, and a holistic approach in which all activities

![Overview of Discussion Board use](image-url)
were assessed toward one final mark (least common). Ranked just outside the top four was a question in which 26 (67%) said they considered their involvement in the Discussion Board helped them know their students better (Figure 3.) A further six were uncertain and two, presumably not making use of the Discussion Board, said it was not applicable.

![Getting to know students better](image)

**Figure 3.** Getting to know students better.

Examination of the Blackboard sites revealed some students were posting their contributions in the form of attached document files rather than through direct input. Most facilitators do not expect this. Of the 39 respondents, just six indicated this was something they expected and only one gave it a “strongly agree” (Figure 4.)

![Weakest responses from facilitators](image)

**Figure 4.** Weakest responses from facilitators

When asked if they subscribe to the Discussion Board forums (which alert the subscriber by email when a new posting is made), facilitators gave the highest “uncertain” and “not applicable” responses, indicating some are unfamiliar with this feature. Only six facilitators said they subscribed to the forums, but 15 said they encouraged students to subscribe. This suggests some contradiction that may warrant further investigation.
By accessing the Blackboard’s “performance dashboard” a facilitator can get access to a single student’s collated contributions to all activities – a useful tool for assessing the overall contribution the student has made to all discussion. The question on the use of this was mixed (see Figure 5.) and, again, a relatively high degree of uncertainty suggested a lack of awareness of this feature by some facilitators.

![Use of performance dashboard](image)

Figure 5. Use of performance dashboard.

Twenty of the 39 facilitators said they used the Discussion Board for formative assessments (activities not formally marked, but in which feedback is provided to improve the student’s understanding of what is required). It was not clear facilitators were providing this feedback as a reply directly on the Discussion Board (so the rest of the class also see it). It may have been emailed to individual students.

Findings from the two focus groups, of five facilitators each, were based on nine open questions. Table II. summarises comments from the facilitators, which are the basis for discussion later in this paper.

<table>
<thead>
<tr>
<th><strong>Focus group question</strong></th>
<th><strong>Key comments from facilitators</strong></th>
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</table>
| Explain the purposes for which you use the Discussion Board. | • assessment of educational level/writing skills  
• sharing specialist knowledge  
• supporting response to other students’ developing ideas  
• reinforcing learning, monitoring student engagement |
| How can the Discussion Board be best used to assist student learning? | • prompt discussion  
• promote teamwork  
• encourage peer-to-peer learning |
| Do you involve yourself by making contributions to Discussion Board activities? | • no involvement, preference to use email  
• early interaction to encourage student engagement  
• intervention in certain cases |
| What difficulties do you face getting students to become active on the Discussion Board; what problems do students face? | • students prefer Facebook interaction  
• avoidance by students who perceive feedback as criticism  
• reticence of shy students or those with limited English skills |
What best motivates students to become involved on the Discussion Board?

- attaching a grade or marks to Discussion Board posts
- structuring Discussion Board posts as assignments
- enhancing the topic with further questions

How useful is the Discussion Board as a tool for formative and/or summative assessment?

- mixed formative and summative nature of activities
- useful for summative assessment
- example of 100% assessment via Discussion Board

What percentage of your course assessments is given to Discussion Board activities (if applicable)?

- significant difference of opinion among facilitators
- will students enrol in courses with weighted activities?
- examples of an excess of assessed activities in a course
- agreement 10-20% of course grade might be attributed to Discussion Board activities.

Have you moderated postings (e.g. inappropriate comment) on the Discussion Board? What actions you have taken?

- facilitators ‘clarifying’ role or use the announcements
- student requested to remove inappropriate post
- concern of potential for defamatory material to be uploaded relating to employers or colleagues.

Final comments about the use of Discussion Boards?

- importance for relationship-building
- cultural context of students identified as a key factor in causing some students to be quiet
- are they outdated? Replace with Facebook?

Table II. Summarised responses to focus group questions.

At first glance, facilitators’ use of Discussion Boards appears to have diverse purposes, ranging from ad hoc comments by students to each other and their facilitator (sometimes regarded as formative assessment), to summative activities (Table II). While Mark Lieberman (2019), quoting Vanessa Dennen, contends the Discussion Board is the only place where students get to recognise the other students on the course, the level of real and meaningful discussion is sometimes unclear.

Initial findings from the focus groups indicated that, as recommended in the Facilitators Handbook (SIT2LRN, 2019), facilitators encouraged students to use Discussion Boards as a communication tool with other students, and as a forum for discussing course-related matters. They commented on student posts, providing critically constructive feedback, and enhancing the background and further meaning of points pertinent to the topic under discussion (pp. 9-11).

Discussion

This research questioned the extent to which facilitators used Discussion Boards to promote online learning and engagement, student creativity and critical thinking, interaction, collaboration, dialogue and reflection among students and with the facilitator, and how the facilitator structured and managed assessment via the Discussion Board.

Online learning and engagement
Facilitators highly value Discussion Boards for encouraging students to make comments and feedback to each other, often including enhancements. One facilitator added another element to the discussion to encourage the students to focus on a facet that might otherwise be missed, noting “sometimes you become aware of some dimension of the topic that is being discussed
…. they have completely overlooked, so I might just try to inject that in – just a couple of sentences” (Focus Group participant January 16, 2019). Another facilitator identified how she encourages a discussion that is slow to start; she will “contribute some positive reinforcing comment about the point the person has made”, her rationale being that it might prompt others to think “oh, I might contribute something if the facilitator thought it was good …” (Focus Group participant January 17, 2019).

Two-thirds of facilitators surveyed felt their involvement in the activities helped to get to know students better and most believed students should control discussions. Responses highlighted the facilitator should intervene only when a discussion went off track, demonstrating consistency with the recommendations of An et al. (2009). While some facilitators advised students to email questions rather than post them on the Discussion Board, others interacted early to encourage students less forthcoming than others. More active facilitators not only subscribed to forums but posted messages encouraging students to do likewise.

One facilitator noted Discussion Boards should be used to encourage good academic-based discussion between students (and their facilitator). This facilitator commented “I am aware that some of the students I have are extremely competent people and their knowledge and experience in the industry far exceeds my own … they are more likely to learn from each other than from me” (Focus Group participant January 17, 2019). Another noted students in his courses have “lots of practical experience … so it is very important to get sharing of that information, particularly where people are specialised in their knowledge” (Focus Group participant January 16, 2019). Such peer-to-peer interaction can usefully replicate a classroom discussion, with students identifying sources and ideas that others can use to enhance their learning. However, facilitators felt students often disengaged when aware Discussion Board activities were not compulsory.

**Student creativity and critical thinking**

The extent to which Discussion Boards encouraged student creativity and critical thinking, was not well supported. While students were encouraged to share ideas and hopefully enhance their own and others’ learning, as noted earlier by Yeh and Lahman (2007), one facilitator commented:

> Discussion Board activities are a space for developing ideas in response to peer feedback; most students take a fairly aggressive approach to Discussion Boards by initially posting what they perceive is a completed response to the task. It is very unusual for a student to revise their own response in relation to feedback. (Focus Group participant January 16, 2019).

Indeed, one facilitator commented in terms of his Level Five course “I am trying to achieve engagement; if you are going to ask people to critique at Level 5, I would just not get that” (Focus Group participant January 17, 2019). This was supported by another facilitator who noted “the critique process for some people is very challenging – so I guess role modelling the critique process needs to be constructive” (Focus Group participant January 16, 2019). The point is students need to be taught how to provide useful critique when responding to discussion posts.
Interaction, collaboration, dialogue and reflection

The importance of interaction on the Discussion Boards as a way of relationship building was highlighted. While face-to-face students see each other every day, facilitators commented that it takes a bit extra to promote that interaction, particularly with students from other cultures. Bliss and Lawrence (2009, p. 17) concur with An et al. (2009), in the belief the instructor should facilitate, but not take over. While “faculty responsiveness” was a factor in developing meaningful online discussion, “instructors who respond too quickly or extensively may shutdown student interaction”. The authors note a relationship between the extent instructors are perceived to facilitate discussion and student satisfaction of online courses and reported learning, concluding the “presence of guidelines, feedback and instructor presence is correlated with greater student participation, quantity of posts, quality of discussion and extent of threading” (Bliss & Lawrence, 2009, p. 29).

The need to moderate inappropriate postings on the Discussion Board was identified. One facilitator adopted a clarifying role when a student made inappropriate culturally related comments, however it was left to the student to delete the post; the facilitator commented “it was their responsibility – I wanted him to understand that he had not responded to the task appropriately” (Focus Group participant January 16, 2019). Another used the Announcements page to refer students back to the Code of Conduct when inappropriate contributions were made. A concern pertained to students discussing the business activities of their employers in a manner that might possibly have identified them and be conceived as defamatory.

Structuring and managing assessment

A correlation was noted between the quality and grading of assignments and student participation in Discussion Boards. One facilitator commented “my experience has been that students who participate actively in Discussion Boards get better grades” (Focus Group participant January 17, 2019). Others concurred; Discussion Board activities, when weighted, are more regularly undertaken, demonstrating greater student engagement.

Despite the number of assessed Discussion Board activities, SIT2LRN does not normally regard them as a compulsory course component, however one facilitator did note that he “evaluate[s] the extent to which they [students] are discussing particular topics that will achieve the learning outcomes” (Focus Group participant January 16, 2019).

While Discussion Boards are used by facilitators for what they believe to be summative assessment, there was some confusion as to what constitutes summative assessment, and indeed the number of assessable activities appropriate for a course. Furthermore, there was discrepancy in the way Discussion Boards were aligned with the outcomes of the course. If Discussion Boards are to be a mechanism for the student to meet learning outcomes of the paper, then this should be explicit. Further, is was unclear as to whether Discussion Boards should be separate from, or directly related to assignments. If they are related, should assignment discussion be on the Discussion Board? And is there unfair advantage to students who engage late, or who read but do not engage?

Conclusion

This research demonstrated Discussion Boards can be used to encourage good academic-based discussion between students (and their facilitator). They are useful for replicating a
classroom discussion and encouraging students to identify additional resources and innovative ideas. There is a demonstrated correlation between grading of Discussion Boards and engagement, and students actively engaged were more likely to achieve higher grades in submitted assignments.

Although there was limited evidence to show facilitators were promoting creativity and critical thinking, most considered their involvement in the Discussion Boards of value, although a high number chose not to engage, thereby missing the opportunity to monitor and foster interaction, collaboration and dialogue and reflection. At times facilitators feel more like a tutor, and some have limited familiarity with the way Blackboard operates to support their engagement with students.

Findings and conclusions presented are consistent with the initial design of the research and the data collection process. The researchers are confident these findings are applicable to broader education settings in New Zealand and overseas.

**Recommendations**

There is value in the use of Discussion Boards as a mechanism for engaging students and supporting their success in courses. If an organisation is using, or planning to use, Discussion Boards as an online mechanism for student engagement, there should be clearly formulated goals for its use by students and facilitators. Such goals should be based on a consistent pedagogical approach, communicated to facilitators and students.

If Discussion Boards are to have value as a means of promoting student learning and engagement, they need to be embedded in all courses, with a clear statement of their purpose. Where this purpose is directly related to summative assessment, as supported by Zhou (2015), it is important grading criteria are clear and consistent. Findings and conclusions presented here are consistent with the initial design of the research and the data collection process. The researchers are confident these findings are applicable to broader education settings in New Zealand and overseas. This research reflects the views of facilitators; further research should investigate the student perspective.
References


