

“Here are my best online contributions and why”: Students’ perceptions of good online participation



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This paper reports students’ recounts of their best contributions to the online learning activities in a master’s course, and their accompanying reasons. Students’ self-claimed best contributions fall into three categories, (1) building and sharing new knowledge/ideas, (2) questioning peers, and (3) sharing resources. Bulk of the self-selected best contributions is in the first category (72%). The preliminary findings seem to suggest that both instructors and students hold similar standpoints on good performances in an online learning environment, i.e. to build new knowledge, to articulate and share them through interactions with course readings, reflections on personal experiences/beliefs online experiences, and interactions with peers. The findings support the view that in general students can accurately make self-assessments about their abilities and achievements, and self-assessment could be used as an alternative way of assessing online learning.

Keywords: collaborative learning, collaborative knowledge construction, assessment of online learning, reflective practice, design of online course

Assessment is an important aspect of teaching and learning, in both face-to-face and online environment. Researchers distinguish “assessment of learning” from “assessment for learning”. The former is for the purpose of grading; and the latter is to enable students to fully understand their own learning and the goals they are aiming for (Elwood & Klenowski, 2002, p. 243). This paper explores an alternative way of assessing online learning by promoting reflective practice and integrating “assessment as a part of learning” into the online environments (Russell, Elton, Swinglehurst & Greenhalgh, 2006, p. 495).

Theoretical framework

There are many ways of assessing student online performance, one of which is to count number of their online postings. Although it is impractical to set a desirable number of postings, conventional wisdom seems to be the more the better (Mastersa & Oberprieier, 2004). By analysing student online logs, Rafaeli and Ravid (1997) find that student achievement is positively correlated with the amount of the course materials they read. Using a similar method to study student engagement in asynchronous online courses, Morris et al. (Morris, Finnegan & Wu, 2005) find that the frequency of participation and duration of participation by learners are positively correlated to course completion rate and achievement in terms of grades. In other words, time spent on online tasks and the frequencies of participation are important indicators of successful online learning. Successful students spend considerable more time in reading content pages and posting messages than unsuccessful learners (40 hours vs. 15 hours) (Morris, Finnegan & Wu, 2005). Apart from quantity, researchers suggest that quality of postings be an important criterion for assessing online learning. In a study by Ho and Swan (2007), the students with higher average quality scores also receive higher final course grades than their counterparts.

Analysis of transcripts from asynchronous online communications is another way of assessing online learning. As suggested by various researchers, such analysis gives insights into the actual learning that takes place in the online learning environment (Henri, 1992). A significant number of published research studies on online discussion take such an approach. Still, another frequently used method for evaluation of online learning is peer assessment. In peer assessment, individual learners rate their peers and vice versa (Falchikov, 1995). Advocates of peer assessment claim that it helps engage students in judgment making and help them to learn about learning (Sluijsmans, 1999), and help enhance students’ metacognitive understanding about their own learning process (Topping, 1998). Students like peer assessment activities because they can compare their work with that of others without facing criticisms from peers at the same time (Smith, Cooper & Lancaster 2002). However, peer assessment takes extra time and may increase teaching loads (Davies, 2000), and lack of self-confidence may prevent students

from giving accurate marks to their peers (Orsmond & Merry, 1996). Issues of confidentiality are also concerns discussed in the studies that adopt such a methodology (Wen, Tsai & Chang, 2006).

Online learning may also be assessed by examining “social presence” in online discussions (Rourke, Anderson, Garrison & Archer, 1999), by 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).

With a shift from “assessment of learning” to “assessment for learning”, educators have been striving to integrate assessment and instruction. As for online learning, efforts are made in designing web-based activities that are for both learning and assessment purposes, and promote active learning, constructive criticism and knowledge sharing (Baraka & Rafaelib, 2004). This study attempts to use reflective practice as an alternative way of evaluating online learning.

The importance of reflection is documented extensively in literature (Zeichner & Liston, 1996). Reflection, as defined by Dewey (1933), is “turning a subject over in the mind and giving it serious and consecutive consideration,” and it enables us “to act in a deliberate and intentional fashion” (p.3). Learning can be regarded as a reflective dialogical practice (Shotton, 1993). In an attempt to make sense of experience, individuals learn not only via internal but also external dialogues. Through internal reflective dialogues, individuals construct self-managed, meaningful and personal learning. In external reflective dialogues, reflective skills are used in a conversational way to come up with new models of personal understanding. In a well designed online environment, learners actively interact with the course content and peers, and seek understanding of what is being learned (Marton & Saljo, 1997) through bringing outside knowledge experience to bear on problem, linking ideas, interpretation, justification, critical assessment and practical utility (Newman, Webb & Cochrane, 1995).

Context

Information Technology and Teaching-Learning Process is a core subject of Masters of Education - Information Technology in Education at the University of Sydney. The aims of the subject are to help students to develop a basic understanding of the impact of various learning theories on the design of information communication technology (ICT) mediated teaching/learning activities. By relating their own practice of using ICT to research literature, students are prepared for meaningful ICT integration.

In the first semester 2006, seven students enrolled in this subject. The subject was delivered in a mixed mode. In the period of 13 weeks, there were five face-to-face meetings and eight online sessions. The online sessions were carried out via Lrnlab, a learning management system developed at the University of Sydney from an open source Plone (www.plone.com). The design of online activities attempted to pursue the notion that learners need constant practices in self-monitoring (Angelo, 1995), and need to manage their own learning through self- and peer-assessment, discovery learning, reflection and articulation (Australia National Training Authority, 2002). The online activities included synchronous chats, collaborative writing, creation of wiki pages, sharing discussion papers with peers, and threaded asynchronous discussion forums. Assessments of the subject included one component in which the students reviewed their participations in the online activities throughout the semester, and subsequently submitted a list of entries that recorded three of their best contributions as well as explanations of why. The exercise provided the students an opportunity to reflect on their learning journey, and it was hoped that thinking over what they had done would enable the students “to act in a deliberate and intentional fashion” (Dewey, 1933, p.3) in their future online learning/teaching.

All the seven students completed the task. Regrettably, one student misunderstood the requirements, thus was excluded from the study. This paper is based on the analysis of the data gathered from six students. By examining the students’ self-claimed best contributions and the reasons provided, the paper intends to get some inferences on what, from learners’ perspective, constitutes best participation in an online learning environment. Undoubtedly, drawing precise conclusions from such a small sample is problematic. But, at least, the findings from this study will shed some lights for further studies.

Findings

A total of 18 entries by six students were submitted. By the nature of the postings, 18 entrances were categorised into three groups, (1) building and sharing of new knowledge, (2) questions for peers, and (3) sharing of resources. Bulk of the self-claimed best contributions fell into the first category (N=13).

Building and sharing of new knowledge

The largest number of the self-nominated best contributions were the online postings in which the students articulated and shared their new knowledge gained through online learning activities, such as interactions with the course reading materials, reflections on personal experiences/beliefs, and exchanges of ideas with peers. Apparently, from the students' point of view, being able to draw conclusions from the class activities and communicate them to peers was an important attribute of effective online participation.

Articulating and sharing what was learned from the course readings. Throughout the semester, the students read books and journal articles, which dealt with various issues on the use of ICT in teaching/learning. They were provided with opportunities to apply the newly gained knowledge to both group and individual tasks. For the individual tasks, they wrote four position papers and posted them in the course websites where peers could read and provide comments. For the group tasks, the students wrote wiki pages together, engaged in synchronous chats and asynchronous forum discussions. A number of student believed that their best contributions to the online activities were their abilities of articulating and sharing of what had been learned from the course reading materials.

According to one student, his best contribution was sharing his understanding that research on ICT should be closely related to "another areas: e.g. ICT and learning, psychology, organisational change, best teaching, ethics and sociology... It is never just a pure issue of technology". He justified his choice of selection by saying "I had reflected on implications and draw on the experience of readings".

Similarly, another student chose the following as one of his best contributions.

The authors of the paper say that most of the research done in the past has been done on artificial groups. ... are not representative of the complexity inherent in real groups.

The student contended that in an online learning environment, if groups were put together by certain criteria, "their goals, choices and problem solving would be very different". The student maintained that this entry not only summarised his ideas but also raised "a new issue".

Being able to engage in metacognitive activities

Being able to engage in metacognition seemed to be another attribute of good online participation regarded by the students. Two students accounted their criticisms of assessment methods as their best contributions. In the first instance, the student talked about the graphic representations used to denote individual's participations in the online activities (viewable to all the participants). In the graphic representations, participants' activeness was shown by dots, which became bigger and moved closer to the centre as the amount of their activities increased. The student applauded her courage and ability "to clarify and justify the graphs did an injustice to the quality of our participation."

I think that the graphs did not consider the amount of time a group member may be taking to type the notes in. Jane (not real name), for example, took a bit of time to type in her contribution of the notes, while me and David (not real name) were discussing about other areas, so her level of "activeness" was lower. Thus, it is not a "fair" display of contribution. ... I suppose the reason why I have an extra patch of blue dots is that I added and edited notes after the session? I didn't complete my share of it during the session, so I made a "commitment" to do that over the week. It is only a matter of completing my share; I don't think there's anything significant about it. The rest of the members have already done their parts during the session itself.

Another student voiced similar concerns on the assessment of online participation. He stated:

Assessing participation rates is not an effective way to determine the contributions of all learners. Assessment by the quantity of posts encourages posting for its own sake.

He, then, listed a number of factors that led to poor participation including unclear instructions from the instructor, poor design of forum questions, inadequate moderation, and inappropriate use of medium. As for the evaluation of synchronous chat and threaded forum discussions, the student argued,

a chat post should not have an equal weighting with a forum post. Most of the contributions to chat sessions were based around "how to" do something. ... Meaningful dialogue is limited and does not encourage participation.

The student considered this as one of his best contributions because it “demonstrates the problems that teachers/facilitators face in encouraging participants to contribute in an online discussion and in assessing their contributions. It also demonstrates the democratising effect CMC has on learning”.

By reflecting on the experiences in the class, a student suggested that a new online chat protocol be added to those already in use.

I think that when a participant has finished his line, he should indicate a marker to show it, so that the rest of the participants know when to come in. Maybe he can use =D (to represent "done"), or some other indicative signs?

The student validated her practical suggestion by saying:

... nothing was said about knowing when the participant has completed what he wants to say, especially since it was suggested that we break up our message into smaller chunks so that it is easier for the others to read. While the participant is busy breaking up his message, the rest continue to chat, and the messages get ‘intertwined’, thus causing possible confusion. Therefore I thought of suggesting a possible cue or indicator to denote the completion, so that the rest of the participants have the ‘courtesy’ to wait for that participant to finish before continuing with the chat.

Ability to build new knowledge from personal experiences

One student thought the following was one of her best contributions because she was able to draw conclusions from her personal learning experiences on synchronous and asynchronous online communication.

... asynchronous discussion is more benefit when asking for reflection. It's giving us more chance to read more references, read our peers reflection (as many time as we want), compare it with others, and we can response whenever we have time (not immediate response)... synchronous discussion (chat) when was first used in the course (after only one face to face meeting) I felt lost in the beginning, ... there were lots of posting and lots of new names !!!! which was difficult to follow(ed). After some protocol was used, the second chat became better, ...when we have been divided into groups, I felt more comfortable using the chat. In my opinion chat is more suitable with small group rather than discussion forum which becomes more active with big groups.

Another student echoed the idea by saying this newly gained knowledge “can later be applied to a classroom setting to improve the learning of students”.

... discussion forums are a better form of reflective thinking. For starters, we can always go back and add to our ideas and add on the ideas of others. In contrast, chat rooms are a “one shot” form of conversation. If a thought comes to you at a later time, there is no way to go back and add to your ideas. That is a big difference.

Still another student thought the following comment was good because it “shows reflection on implications, and draw(s) on experience”.

I think there is some value in teaching children the etiquette of Chat, since they do use it. ... I would use chat for general discussion. ... However, I would not be expecting some deep thinking or exploration. ...I would use asynchronous discussion for groups of children to respond to more complicated questions - demanding more thought and discussion. This could be sent up over a time frame of 1 week with the expectation that each child contributes x times. For example in English pose a question around the novel being studied. ...Using discussion children have a time to think and form their opinions at their own pace. Here the focus is the content of the subject and ICT is the tool.

It may be a challenging task for the students to decide which to choose as one of their best online contributions. It certainly proved to be more difficult for them to justify their choices. In the entries listed in Table 1, the students continued to contribute their best online participations to the situations where they communicated their newly gained knowledge/understanding to their peers. However, their inferences to good online performance lacked adequate justifications and elaborations.

Table 1: My best contributions and reasons of why

Best Contributions	Reasons of Why
<p>“From your last few comments I conclude that it all comes back to the teacher. And, even though the teacher may be fully acknowledged of the ICT program, applying the ICT program with students may be troublesome because student learning varies from one individual to another”.</p>	<p>“This comment points out the differences between students and their use of ICT programs. It is <i>imperative</i> to know what differences exist in students (their uses of ICT programs) and how these barriers can be diminished for effective ICT learning to take place”</p>
<p>“...Research in any field will inevitably reach maturity in due time. Since technology is becoming a big part of education, I believe that more and more research will start to develop to answer critical questions in the field of education and technology (such as the question on learner comprehension)”.</p>	<p>“This comment addresses the issues and importance of future research in the field of education and technology. I <i>believe</i> that education and technology are becoming interchangeable. With that being the case, it is imperative that future research answers critical questions that will guide education and technology in a positive direction (effective learning)”.</p>
<p>“We cannot forget the benefit of face to face meeting, these meeting which should (be) take place before starting any online studying for some purpose: - Reinforcing the necessary technical and social skills for teaching and learning in an on-line environment. - Giving the students chance to meet their peers, know more about there learning background. - Participants’ teaching experience/what they’re teaching this semester - Why the students doing the unit. - What they hope to get out of it. - What they will bring to the unit. - What are their apprehensions about the unit? - Something interesting about themselves”.</p>	<p>“I think that this was a good comment because I <i>believe</i> in using hypermedia tools to enhance and promote learning, on other hand I also <i>believe</i> of f2f meeting especially before starting any online learning for the purpose I listed on my comments”.</p>
<p>“...participants is an important issue in both discussion face to face and Online, but I think whenever there is an assessment in the participation students definitely will participate. So I think direct online assessment may increase the student’s participation. I believe that technical problem is one of the barriers which reduce the students access to any CSCL technology...”.</p>	<p>“I think this was a good comment because active discussion is due to good participation either on online or f2f discussion”.</p>

Questions for peers

The following three choices were from the same student who attributed her best online participation to the three questions that she posed when she was moderating an asynchronous discussion forum.

“Wherever possible, researchers should observe groups in the real world (natural groups) in order to see the real complexities within group systems”. What do you think they are referring to when they mention “real complexities”?

How would you go about setting up natural or artificial “groups” in order to test theories?

What factors would influence your decisions and why?

I would probably do the same too Jane (not real name), but I was also wandering when you say “too many or too little”, what do you mean in terms of number of members? Also, what sorts of complications would arise if the group is too big or too little?

To justify these selections, the student claimed the first question “was very broad and it gave everyone an opportunity to discuss and comment on their individual beliefs”. She believed that “it was a good reflection question as it related to the readings about ‘groups’. It gave the group a chance to think about the article”. As for the second question, it “is a way to initiate the group in thinking about their belief system. I also wanted to promote deeper understanding of the topic of ‘groups’ by asking ‘why’ they made certain decisions to test theories”. Finally, the third question “was led to another question. I guess I wanted Jane (not real name) to reflect on the different complications in different sized groups. I was also curious to see what Jane thought about different sized groups since some people classify ‘small and big’ groups differently. What I might call a ‘small’ group, another person might call it a ‘big’ group”.

Sharing of resources

Two students thought their best online contributions were the resources that they shared with peers. One entry went on like this:

Hi all, I thought of creating a forum section for this short paper to share the resources which we have found. I managed to find these few webpages tonight, perhaps some of you might want to take a look at them. If you find them useful to your short paper, you can use them. Of course, if you have found other better sites, please feel free to add on too. Thanks!

Another one said:

My concept map to represent the ideas from the article by Hughes. I thought this was a more difficult concept to map than Ertmer, et. al and I figure my diagram can be improved. Any comments are welcome.

The first student contended that she “meant to start a contribution thread where everyone in the course can come in and share resources”, while the second said that his posting “demonstrates how most people want to connect with other participants and share information outside formal learning tasks. Many participants offered tips and suggestions regularly throughout the course”.

Discussion and conclusion

By examining the students’ self-claimed best contributions and the reasons provided, this paper intends to get some inferences on what, from learners’ perspective, constitutes best participation in an online learning environment. The analysis of the students’ entries shows that bulk of the self-claimed best contributions (72%) focuses on bringing outside knowledge/experiences on problems solving and linking ideas and interpretations (Newman, Webb & Cochrane, 1995). It seems that, from the students’ point of view, good online participation is related to competences in drawing conclusions, articulating and sharing the new knowledge gained. The students are proud of their criticisms of the instructional aspects of the subject and their constructive suggestions. However, there is no evidence of self-critiquing by the students. According to Mezirow (1991), there are three types of reflective thinking: (1) content reflection (what we think), (2) process reflection (how we think), and (3) premise reflection (why we think the way we do). In the master’s subject described in this study, content reflection would be the four position papers that the students posted online for peers to review and critique. Process reflection would be the students’ articulations of their thinking in the synchronous chats and threaded asynchronous discussion forums. Student self-assessment of their online participation is meant for premise reflection where the students rationalise why they do things the way they do. Unfortunately, the intention was not explicitly communicated to the students, and the students focused more on the “best” contributions rather than the “best” rationalisations.

When examining the quality of online postings, Henri (1992) emphasises four dimensions: (1) social, (2) interactive, (3) metacognitive and (4) cognitive. The cognitive dimension includes (a) elementary clarification, (b) in-depth clarification, (c) inference, (d) judgment and (e) strategies. Using this as a criterion to examine the students’ self-assessment, it is obvious that many of the students’ online contributions remain at the first two levels of the cognitive dimension - elementary clarification and in-depth clarification. While there is evidence of reflections on personal experiences/beliefs, articulation, linking facts and notions, comparing ideas and generating of new knowledge; there is enough proof that not all the students are capable of making inferences or self-critique. Some self-claimed best contributions simply repeated what had been said without offering interpretations, or stated opinions without adding any personal comments (Newman, Webb & Cochrane, 1995). Reasons given such as “I believe” and “it is imperative to know” provide little rationalisation or elaboration. This is a noticeable weak area that online instructors should caution when considering self-assessment as an assessment method.

Empirical evidence has shown that students can accurately make self-assessments about their abilities and achievements in several disciplines (Birckbichler, Corl & Deville, 1993). Student self-assessment has been repeatedly found positively correlated with both teacher ratings and written test scores (Birckbichler, Corl & Deville, 1993; Oscarson, 1997) and levels of enjoyment (Brantmeier, 2005). Nonetheless, researchers also find that less proficient learners tend to overestimate their abilities (Wesche, Morrison, Ready & Pawley, 1990). In the study reported here, the students who were unable to provide strong justifications to their self-claimed best contributions were also those who received lower grades in the subject. As such, it seems fair to conclude that student self-assessment could be used as a measurement in the evaluation of online learning.

The findings reported in this paper are based on a very small sample. Undoubtedly, drawing precise conclusions from such a sample is problematic. Nevertheless, a number of observations obtained from

this exercise may shed light on further explorations on assessment of online learning. First, it appears that both instructors and students hold similar standpoints on good performances in an online learning environment. Through interactions with course readings, reflections on personal experiences/beliefs and interactions with peers, we expect students to draw conclusions, to build new knowledge, to articulate and share them. Student self-claimed best online contributions are in line with such a notion, indicating students' perceptions of good online performance synchronise with that of ours. As a positive relationship exists between perceptions of worth and a deep approach to learning (Goodyear, Jones, Asensio, Hodgson, & Steeples, 2005), it is fair to say that when students seek understanding of what is being learned, they are more likely to engage in deep learning.

Secondly, the findings of this study suggest that self-assessment could be used as an alternative way of assessing online learning. In traditional teaching, students are trained to answer questions rather than asking them; their learning to be evaluated rather than evaluating their own learning; and tools of evaluation are privately owned and exercised by teachers. Self-assessment transforms students' role from passive subjects to active participants who share responsibility in the assessment process. When students' role is changed, they are more likely to assume a more active role in their own learning and the learning of their peers. Opportunities provided for students to observe and monitor each other's participation will entail student accountability and enable students to assess the quality of the responses (Vonderwell, Liang & Alderman, 2007).

Finally, extra scaffolding should be provided when asking students to engage in self-assessment. While students can, in general, accurately make self-assessments about their abilities and achievements, less proficient learners tend to overestimate their abilities (Wesche, Morrison, Ready & Pawley, 1990). Students should be given extensive modelling in how to evaluate online activities. To achieve that, it is necessary for instructors to hand-held students at the initial stage and to demonstrate how to categorise/analyse online performance. More importantly, instructors should facilitate learners in the move from elementary clarification to judgment and strategies (Henri, 1992).

With a shifting from "assessment of learning" to "assessment for learning", emphasis is moving towards integrating assessment into instruction. Assessment is changed from evaluation of products and individual progress to the evaluation of learning processes. The change poses challenges for us educators, but also provides opportunities for us to explore and experiment. The author wishes that the exercise described here would invite further discussions on online learning assessment.

Acknowledgement

The author wishes to thank Professor Peter Reimman who designed the assessment activity described here, and the students whose contributions were analysed in this paper.

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Please cite as: Hu, C. (2007). "Here are my best online contributions and why": Students' perceptions of good online participation. In *ICT: Providing choices for learners and learning. Proceedings ascilite Singapore 2007*. <http://www.ascilite.org.au/conferences/singapore07/procs/hu.pdf>

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