Peer-Led Discussion: Who is the Learner and Who is the Teacher in the Online Learning Environment?

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Abstract

In this paper I focused on the special role of discussion leaders and their engagement in the facilitation of online discussions in comparison to the online teacher. The methodology combined quantitative data of students' frequency behaviour with qualitative discourse analysis of students' individual contributions. Each contribution was analysed in relation to one of the seven facilitation roles. In the seven categories that were used to compare the discussion leader’s role with the teacher’s in facilitating, the discussion leaders performed higher in the following: summing-up and confirming, moving the discussion forward, focusing the discussion and debriefing. The teacher demonstrated more frequent behaviour in the following: direct instruction, encouraging and giving feedback/content. Scaffolding had a similar frequency for both with a slightly higher rate for the teacher. The peer-led discussion enabled new relationships and promotes the learning in the community.

Keywords: online learning, discourse analysis, teacher’s role, peer-led discussion

Introduction

A newly constructed framework based on Hendricks & Maor, 2004; Heckman & Annabi, 2005; Penman & Lai 2003 was established to identify social and cognitive processes of online interactions (Maor, 2007). Further analysis was conducted to establish the social and cognitive attributes of online interactions using performance profiles (Aviv, 2000). The next research phase evolved into examining the contribution of the various participants to the development of the cognitive interactions. This inquiry required an analysis of categories of interaction. Aviv (2000) suggests that this type of interdependency between learners in the community results in “promotive interaction”. He describes these as actions of individuals that substitute for each other. These are also when “participants positively invest energy to support each other’s actions and there is a high degree of openness among participants” (p. 55).

The research utilises online interactions to understand the role of the student as discussion leader and whether the discussion leader can replace a teacher in managing the discussion. This question was raised in previous studies of online learning (Johnson, 2001; Aviv, 2000). Although the first analysis reveals that cognitive and social processes are mutually interactive and overlapping in online learning, it is important to know who contributes to the facilitation of the cognitive learning and in what ways. This is the focus of the current paper.

Literature review

Online teaching has brought flexibility and convenience and greater opportunities to create online learning communities of practice (Anderson, Rourke, Garrison, & Archer, 2001; Reeves, 2005). It also has created innovative and effective ways of teacher-student and student-student interactions, which rely on the increasing use of new technologies. However, it did not necessarily correlate with higher levels of academic achievement (J. Lee, Carter-Wells, Glaeser, Ivers, & Street, 2006). Nevertheless, a positive correlation, was found between a sense of community and perceived learning engagement, perceived learning, and student satisfaction (Liu, Magjuka, Bonk, & Lee, 2007). Active interaction was also a significant predictor of perceived learning (Rovai & Barnum, 2003).

Research further suggests that to have meaningful learning the members of the community have to be socially connected and feel confident about the learning environment and trusting of other learners before achieving any cognitive gain (Conrad, 2005; Maor, 2003; Rovai, 2002). According to Brown (2001), when students perceive a close connection to an online learning community, they often place a higher priority on learning and spend more time devoted to it. This in return may result in more productive learning communities, which according to many
researchers are essential for successful learning environments (Palloff and Pratt, 1999; Squire and Johnson, 2000; Wenger, 1998).

Peer learning is part of the social fabric of the community and gives an opportunity for students to bring their variety of pre-experiential knowledge to the discussion and promotes dialogue and learning (Hendriks & Maor, 2004). In these interactions the members of successful online learning communities according to Twigg (2001) often take on the role of the teacher more often than do students in traditional classrooms. Other studies (Johnson, 2001; Rogers, 2003) suggest that students from online communities tend to learn more from information added by their peers than from the teacher. In Maor’s study (2003), the role of facilitator was extended to include members of the community on a rotation basis to let them experience the responsibility of the teacher by presenting the weekly topic, posing relevant questions and providing synthesis of the discussion. According to Ikpeze, (2007), involving group members in rotational leadership style helps them to become a more cohesive team and each person’s individual contribution is accounted for. Heckman & Annabi (2006) see the role of the teacher as “developing thoughtful and stimulating questions and raising issues that generate active participation” (p. 143). These studies suggest that students are experiencing intellectual and leadership responsibilities while acting in the role of facilitator. Wallace (2003) advocates that, while members of the community help each other to make sense of information and ideas, the teacher should have a further responsibility—to act as a mediator to focus and guide the discussion.

**Methodology**

To answer the research question, “What roles do discussion leaders perform?” a further framework based on the work of Heckman and Annabi (2005) was employed. The coding of ‘interactions’ for the direct instruction and facilitation for the discussion leaders and for the teacher, was conducted for two main groups: Student-Student Interactions and all Teacher-Student Interactions. Using discourse analysis enabled the examination of specific categories of cognitive attributes and the comparison of sub categories in relation to the discussion leader’s role. The number of interactions in each category provided the quantitative dimension and enabled a comparison between the two types of interactions. Excerpts from the original online interaction are used to support and further demonstrate the nature of cognitive learning that took place during a semester long course over three years. The data was generated from an exclusively online asynchronous discussion of university cohorts in three consecutive years. Nvivo, a software program for qualitative analysis (QSR, 2007), was used to categorize the interactions among the students and the teacher.

**Results**

To answer the research question of what roles do discussion leaders perform and can a discussion leader replace a teacher in managing the discussion, I coded the interactions for the discussion leader and for the teacher, against the role of direct instruction and facilitation. The following graph helps us to understand the role of the discussion leader by illustrating the differences between the discussion leader’s facilitation actions and the teacher’s facilitation actions during five selected topics and from 1157 postings from the online course.

The analysis of the type and number of postings related to facilitation by the discussion leader and the teacher suggests that the teacher tends to facilitate more in the areas of direct instruction content related postings (12% versus 26%), and encouragement and giving feedback (25% versus 19%) than the discussion leader.

However, the discussion leaders’ postings were higher in four types of facilitation: summing up and confirming (24% compared with 20%), focusing discussion (13% compared with 7%), moving the discussion forward (13% compared with 6%) and debriefing (8% compared with 5%) of the teacher’s postings.

When students took the role of the discussion leader, they attempted to show their facilitation skills. The highest use of facilitation was in summing up and confirming. The following are examples of these facilitation skills by students who acted as discussion leaders:

*This week we have grappled with philosophy, starting with Socrates and the question: What is knowledge? We briefly read of the development of views of knowledge, Behaviourism and then to the work by Von Glasersfeld who expressed the concept of knowledge as dependent on the individual and their perception... (Rose, 2005)*
Plenty of definitions of community in this thread and agreement with the definitions. I too agree that a community is a group of people who is working towards achieving a common goal in this case ... (Kate, 2006)

Figure 1: Discussion leader and teacher facilitation

The teacher also had a fairly high proportion of postings of the type of summing up and confirming, for example:

Some of the concepts that you used last week included: Community environment, personal touch, human factor, effective learning environment, connection, discussion....This rich list is some of the new vocabulary that you are using as a learner in this online learning environment. (Teacher, 2004)

Although the number of postings by discussion leaders was high from the type of encouraging and giving feedback, there were more teacher encouragement and feedback types of postings than the discussion leader feedback. For example, one of the teacher postings was:

The best part of the discussion was the level of reflection that you have all demonstrated. I don’t think that if I explained or modelled the Discussion Leader’s role better, your reflection ability would have been further improved and as Ryan stated, I would defeat my purpose of letting you grow into your role and experience the process of constructivist type of learning within the community. (Teacher, 2004)

The postings of Encouragement and feedback from the discussion leaders were similar but less frequent:

Tim’s response to this was particularly insightful. Is constructivism purely a technique that can be switched on/off at will? I like Tim’s example of his Career Ed course and the response of his students. (Gary, 2004)

... but many of you are too critical of your own performances. You have all done well with each adding their own individuality to the role. Don’t forget we are just starting along this learning continuum of constructivist teaching. (Mia, 2004)
The third frequent way of facilitation by the discussion leaders was focus the discussion. A number of examples can demonstrate this type of facilitation:

> We have to ask ourselves which aspects of 1 to 5 above have been utilised in this course, and then we have to suggest ways in which the course could be improved. (Ryan, 2004)

> Again I ask what are the characteristics of the interactions that most increased your learning? (Brad, 2006)

Teacher focus the discussion type of facilitation was similar in nature but always contained more challenges or requests:

> This was a good session; however, I would like you to integrate more of the literature in your posting and even use quotes to support your views. I also noticed some good interaction between the learners in this group. (Teacher, 2006)

The next facilitation act which was more frequently demonstrated by the discussion leader than the teacher is moving the discussion forward. The discussion leaders were sometimes more flexible and concerned about the issues discussed, whereas the teacher was concerned about keeping the conversation going on the topic and in the time allocated. The following excerpts demonstrated this issue:

> Based on our understanding of different teaching methods and the examples that we’ve read of in this unit, what teaching approaches would you like to implement in your own teaching situation? (Susan, 2005)

The facilitation task of Direct instruction and presentation of content was the largest act of facilitation and was implemented more frequently by the teacher and less so by the discussion leaders in the online interactions. The following are the discussion leader and the teacher excerpts:

> For our discussion on OLP, we will discuss this until Thursday morning, Eastern Standard Time and then from then we will discuss the issue of BL. For the sessions on OLP, we have one reading to complete and a number of activities. (Geoff, 2006)

> Please check the Power Point Presentation for week two in the lecture material, reflect on the reading but also on your colleagues’ ideas and join the conversation. I expected your message once or twice during the week. My advice is always to write in a word document and then cut and paste into the WebCT discussion. (Teacher, 2004)

A debriefing was a facilitation task that interestingly was used less frequently. But the discussion leaders were likely to use debriefing more often than the teacher:

> I felt like the chat session got “warmed up” fast enough to really start some interesting discussion. I actually felt like we were having a conversation, rather than a discussion, and now I am thinking there is quite a difference between the two. (Kath, 2005)

The last facilitation task presented in this section is the scaffolding. The scaffolding was similar for the discussion leaders and the teacher but was slightly more often used by the teacher. The following are first examples from the discussion leaders’ facilitation followed by the teacher’s example:

> As a starter I would like to share with you some of my thoughts. When I revisited my postings in Week 4, I was surprised by the lack of personalization of the postings. They all seem somewhat stilted. (Brad, 2006)

> We have to be very mindful how we define a research study. Articles that simply described how an online course was developed is not research, even those that added a few quotes on how participants evaluated the experience is not fully research. (Teacher, 2006)
Analysis of the interactions suggests that the discussion leaders performed highly in the facilitation areas, such as summing up and confirming the exchange of information, moving the discussion forward, helping refocus the discussion and debriefing the other learners at the beginning of the topic or at the end of a particular session. The teacher was a more active facilitator when she gave direct instructions and dealt with pedagogical content knowledge, encouraged and gave feedback. There was an almost equal number of postings for the teacher and discussion leaders that occurred in relation to the scaffolding and leading the students in the learning. Therefore, it seems that the discussion leader can replace the teacher in managing the interaction and the teacher should scaffold the students into this role. However, the data indicate that the role of the teacher is substantial in the pedagogical content knowledge and there is a great need for more direct facilitation to promote higher-level cognitive processes.

**Discussion and Conclusion**

The research question about the role of the discussion leader suggests that in some areas the discussion leader can replace the teacher in the online facilitation. Therefore, the teacher may utilise this role as a planned part of the teaching strategies which can lead to a greater learning and empowering experience for the online learners. As early as 1992, Henri examined the quality of online postings by focusing on social, interactive, meta-cognitive and cognitive dimensions and attempted to qualitatively define the nature and content of online interactions that sustain cognitive development and meaningful learning. His analysis further developed into different studies such as Gunawardena, Lowe and Anderson (1997) that examined the quality of online learning and others who conducted discourse analysis to ascertain different aspects of online learning (Marra 2006, Hendriks & Maor, 2004).

The methodology combined the quantitative data of students’ frequency behaviour with the qualitative discourse analysis of students’ individual contributions online. Each contribution was analysed in relation to one of the seven facilitation roles. The type of teaching strategy of peer-led discussion enables the students to immerse themselves in the online experience and to learn and share ideas and frustrations with other learners. Through the immersive approach (Al-Mahmood & Mcloughlin, 2004), students gained a great deal of insight into how to transform their practice by taking a teacher’s perspective through the firsthand discussion leader facilitation skills.

Heckman and Annabi (2005) in a comparison study between face-to-face and asynchronous learning networks’ (ALN) discussions found that student-to-student interactions in ALN contain a greater proportion of high-level cognitive indicators than do student-to-teacher interaction. They also suggested that teacher presence is much greater in face-to-face discussions and that two-thirds of students’ utterances online were responses to other students and were longer in ALN while teacher utterances were shorter. They also found that more than half of the instances of teaching process in online discussions were performed by students rather than the teacher. These results inspired the current study and encouraged me to conduct a careful discourse analysis to answer the research question. The results from a different study conducted by Penman and Lai (2003) suggest that it is possible to achieve higher-order thinking in asynchronous learning environments and the style of lecturing is also important in facilitating online interaction.

Not many studies explored online teaching in a peer-led online discussion (Nicholson & Bond, 2003; Maor, 2003; Ikpeze, 2007) or the group processes in online group collaboration involving teachers in a peer-led context. There are two issues related to this study: the role of the group facilitator in online small group learning and the process and impact of peer-led group discussion on students’ learning. It becomes a common routine in many online courses for the facilitator to adjust the planned curriculum, to constantly contribute and seek input from students. The students, on the other hand, respond on a regular basis and start to take leadership responsibilities in the online community.

This study found that the discussion leader’s role enabled and promoted interactions. These interactions also created a greater commitment among the community members, which sustained the discussion during the semester long course. In addition to intense interactions, the role of discussion leader prompted empowerment and active learning, which were two goals intended in creating this unit. This also changed the role of the teacher of this unit to a co-facilitator and co-learner. To answer the research question of whether the discussion leader can replace the teacher, the quantitative data suggest that the discussion leaders fulfilled most of the facilitation roles and the leadership experience provided them with the opportunity to be highly interactive, reflective and understand the new relationship between the online teacher as a facilitator and the learners in the changing learning landscape. However, the qualitative data suggest that the lecturer scaffolded the learners into reflection and interaction and guided them to immerse themselves in the online experience. Occasional social or cognitive challenges could not be resolved
without the intervention of the teacher. In summary, the task given to each member to be a discussion leader enabled new relationships between the teacher and the learners and new relationships among the learners, with everyone being empowered, changing their learning experiences and promoting the learning of others in the community.

References


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