Assessing the Effectiveness of Role Assignment on Improving Students’ Asynchronous Online Discussion Participation

Hajar Ghadirian, University of Tehran, Tehran, Iran
Keyvan Salehi, University of Tehran, Tehran, Iran
Ahamd Fauzi Mohd Ayub, Universiti Putra Malaysia, Seri Kembangan, Malaysia

ABSTRACT

Taking into account prior research suggesting a lack of student participation in online discussions, this study examines the influence of peer moderator (PM) role assignment on students’ participation and that of their peers’ participation in online discussions. Eighty-four participants operated in a moderator role, reciprocally. Moreover, the study examines the differences in the level of e-moderation supports enacted by PMs of high-and low-density online discussions. Online participation was assessed using log files of seven-week discussions and social network analysis techniques. Quantitative content analysis was applied with online interaction transcripts of PMs for two groups of online discussions. The results indicated that students in the PM role reached significantly higher level of participation quantity and patterns and their non-posting participation significantly influenced all indicators of group participation. Further, high-and low-density online discussions differed significantly with regards to frequency of PMs’ e-moderation supports.

KEYWORDS
Online discussions, Participation, Peer moderation, Quantitative content analysis, Social network analysis

INTRODUCTION

Many colleges and universities around the world are rapidly proposing courses completely or partially online to increase student enrolment (Hew, Liu, Martinez, Bonk, & Lee, 2004). In an online or blended learning context, students and instructors may interact with one another synchronously or asynchronously. Asynchronous online discussion (AOD) refers to communication between students or users that do not occur at the same time, while synchronous discussion refers to communication that happen at the same time (Pittman, 2013). The commonly reported advantages of AOD are, self-regulated learning or active learning, encouraging critical thinking, supporting collaborative knowledge construction and promoting reflective and thoughtful content in the discussion (Wong & Bakar, 2009; Yeh, 2010). Although AODs show many of these feasible benefits, such benefits are gained when students are eager to participate. Unfortunately, many students in AODs do not meet the participation expectations (Dennen, 2008; Palmer, Holt, & Bray, 2008), resulting in shallow discussions (Webb, Jones, Barker, & Van Schaik, 2004). Equally important, the comments do not respond to or build on each other (Thomas, 2002).

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One important way to foster students’ participation is through role assignment of peer moderator (PM). PM is a scripted role assigned to students by the instructor (De Wever, Van Keer, Schellens, & Valcke, 2010). Topping (2005) defined PMs as ‘people from similar social groups who are not professional teachers, but helping each other to learn and at the same time are themselves learning through teaching’ (p. 322). Prior researches had reported the economic advantages of assigning students as PMs of AODs (e.g., Bloxom, Caul, Fristoe, & Thomson, 1975; De Volder, Grave, & Gijsselaers, 1985). Although the importance of peer moderation in association with students’ participation has been widely discussed (e.g., Hew & Cheung, 2008; Leh, 2002; Xie, DeBacker, & Ferguson, 2006), little is known about the influence of introducing PMs’ role on moderators’ own participation and that of their peers in AODs, including participation patterns and participation quantity. Moreover, previous studies that investigated moderation supports in AODs focused on depth of discussion threads as a criterion for selection of PMs (Winograd, 2003). Studies investigating how PMs’ support may shape the density of AODs are very few. AODs’ density is defined as the number of linkages among group members. Thus, the main goal of AODs is ensuring there are conversational exchanges or true discussions taking place among the various members (Dennen, 2008 & Hewitt, 2005).

The purposes of this study were to investigate the effect of the assigned role of PM on students’ participation and that of their peers in AODs and to determine the differences in the e-moderation behaviors enacted by PMs in high- and low-density AODs. The present study and its findings can benefit online instructors through a better understanding of the influence of PM-type role assignment in increasing students’ participation in AODs. Moreover, by focusing on the density of AODs, this study will contribute to the field of peer-moderated AODs in providing awareness of the prospective PMs on the application of moderation supports to sustain a denser AOD.

LITERATURE REVIEW

Participation Quantity and Participation Patterns

There are two basic forms of participation quantity in AODs; posting and non-posting. They are also labeled as writing and reading (Xie et al., 2014). In AODs posting behaviors, there are visible records in the AOD system (Xie, 2013). Posting participation is often manifested as the number and length of messages posted and usually impacted by course requirements (Beaudoin, 2002). The second most used dimension of participation quantity measures the invisible online activities or non-posting behaviors (e.g., Nonnecke & Preece, 2003). Non-posting participation counts the number of messages read, number of logsins, and length of reading (Palmer et al., 2008; Webb et al., 2004) which are voluntary, and not solicited as a course requirement (Xie, 2013). High quantity of interactions is usually desired in AODs. However, the main problem with these two methods is the structure of relationships between the participants is ignored. One analytical method in detecting participation structures or patterns is social network analysis (SNA), an approach utilized by Finnish researchers (e.g., Hakkarainen & Palonen, 2003; Lipponen, Rahikainen, Lallimo, & Hakkarainen, 2003).

SNA examines “the interpersonal transactions that constitute the social structure of a group” (Friedkin & Slater, 1994, p. 139). To measure the participation patterns, the density, centrality, share, and reciprocity are computed through the analyzing logs of students’ communication in AODs (An, Shin, & Lim, 2009; Xie et al., 2014). However, “centrality” and “density” are significant underlying considerations relevant to the role of moderation (Xie et al., 2014; Zohar & TenneGazit, 2008). Centrality is the extent to which a person is in the center of a network. The most common measure of centrality is the degree centrality, which is a simple tally of the number of ties outgoing from a person (outdegree) or incoming to a person (indegree) (Friedkin & Slater, 1994). Outdegree shows the extent to which a student engages in social interactions with a varied range of other peers (diversity) while indegree can be built through the length of time spent within a group (attractiveness). Role assignment is the first factor along with attractiveness and diversity in AODs.
REFERENCES


Hajar Ghadirian (Ph.D. in Educational Technology, Universiti Putra Malaysia) is currently leading a one-year project as Postdoctoral Fellow at the University of Tehran, examining the effectiveness of instructor-base and peer-oriented online Social annotations (SA) on quality and quantity of students’ knowledge construction during collaborative learning. She conducted different researches on social annotation (SA) tools, social network analysis (SNA), Peer Moderation of online discussions, knowledge sharing in virtual contexts, and group awareness in computer supported collaborative learning (CSCL). She has been the author of several papers in peer-reviewed ISI-indexed journals and international conferences.

Keyvan Salehi is Assistant Professor of Educational Measurement and Evaluation at the Faculty of Psychology and Education, University of Tehran. He received his Ph.D. from University of Tehran. His primary research interests include Assessment and Measurement in Education, Research Method in Education, Evaluation of Educational System, and Qualitative Research Methods. He has published a number of research articles in ISI-indexing journals.

Ahmad Fauzi Mohd Ayub taught 32 courses mainly related to information and communication technology in education, leading to the Bachelor of Education (Information Technology) degree. The courses he conducted involved both theoretical concepts and practical laboratory work. He also assisted students in their development of multimedia tools for educational use. He received excellent service awards in 1997, 1999, 2002, 2003, 2008, 2009, 2010 and 2011. He was named Excellent Young Researcher for 2010 and 2011 by the Institute for Mathematical Research. He has also won 16 medals, at the Malaysian Technology Expo. His research interests include Multimedia in Multimedia in Teaching and Learning, new media, communications technology, and Computer in Education.