Students' Online Forum Activities and Social Network Analysis in an E-Learning Environment

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Abstract : Online discussion forum is a popular e-learning technique that allows participants to interact and construct knowledge. This study aims to examine the levels of participation, categories of participants and the structure of their interactions in a forum. A convenience sampling of one course coordinator and 23 graduate students was selected in this study. The forums' log file and the Social Network Analysis software were used in this study. The analysis reveals 610 activities (including viewing forum's topic, viewing discussion thread, posting a new thread, replying to other participants' post, updating an existing thread and deleting a post) performed by them in this forum, with an average of 3.83 threads posted. Also, this forum consists of five at-risk participants, six bridging participants, four isolated participants and five leaders of information. In addition, the network density value is 0.15 and there exist five reciprocal interactions in this forum. The closeness value varied between 28 and 68 while the eigen vector centrality value varied between 0.008 and 0.39. The finding indicates that the participants tend to listen more rather than express their opinions in the forum. It was also revealed that those who actively provide supports in the discussion forum were not the same people who received the most responses from their peers. This study found that cliques do not exist in the forum and the participants are not selective to whom they response to, rather, it was based on the content of the posts made by their peers. Based upon the findings, further analysis with different method and population, larger sample size and a longer time frame are recommended.
Keywords : e-learning, learning management system, online forum, social network analysis
Conference Title : ICELD 2014 : International Conference on Education, Learning and Development
Conference Location : Penang, Malaysia
Conference Dates : December 04-05, 2014