Collaborative Learning: Article Analysis¹

Aftab Hussain, <u>aftabh@uci.edu</u> Department of Computer Science, University of California, Irvine

In this short paper, I analyze an article by Biasutti [1] that carries out a comparative analysis of forums and wikis for collaborative learning. Afterwards, I describe how I could integrate collaborative learning into my teaching.

In the comparative analysis [1], collaborative experience data was collected from a group of 87 Humanities students from a university in Northern Italy, while performing certain virtual tasks over a five week period. The tasks involved forum discussions and designing a project in a wiki environment. The study reveals several key findings, such as, wikis tend to greater invoke producing and developing activities whereas, forums were mainly characterized by inferring, evaluation, and organization activities. However, there are several issues worth addressing to better read into these results.

First, most of the participants were female and there were only seven males. By not accounting for the role of gender, something that has been shown to be significant in gender interaction studies like [2], the findings on how students collaborate in such online platforms may not fit a different academic setting where, for instance, all participants are male, or all participants are female. Also, the facts that the participant gender ratio was similar to that of primary school teachers in Italy and that the participants were connected with primary education may be misleading, since we do not have information on *how* they were involved (i.e. their occupation) in Italy's primary education. Second, the age range of the participants is quite large (22-56) with a mean age of 33. Interactions between different age groups may be dissimilar [3] and thus may influence how people participate in small groups of 4-5, as was done in this study. Controlling for age or giving information on the age composition of teams could better inform the conclusions drawn from such studies.

With regard to participant background, the study does not capture information on any prior knowledge participants may have had on using wikis and online forums. Familiarity with the tools can significantly influence their experience of using such platforms and thereby could affect their contributions and responses in the experiments. Also, the study does not provide any detail on their levels of familiarity with the reading tasks and projects that were assigned. Greater preparedness with the task content would increase the ability to evaluate, develop, and summarize their thoughts, which may reflect in the actual contributions a participant makes. Thus, in order to more accurately assess online platforms such as wikis and forums, controlling for participants' content familiarity is crucial.

Finally, the author has ignored the personality styles of the participants, which can affect findings. An important component of the experiment in [1] was to capture forum interactions by analyzing discussion transcripts. The author used quotes to support the existence of different types of activity. For example, the quote, "I also liked that video that Ester suggested!", evidences evaluation activity in the platform. It is quite possible that some participants may not make such a statement despite having similar views. We thus see that such an analysis critically hinges upon how people express themselves in online platforms, which may vary significantly with their introvertedness or extrovertedness [4]. While it may appear that the supervision by a professor who promoted student participation and provided feedback in tasks tempered

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the influence of individual personality styles (this again needs further investigation), the findings of this study may not be easily extrapolatable to an unsupervised online activity setting.

Collaborative Learning in Teaching. I think the most effective ways to incorporate collaborative learning in my pedagogy is to promote student expression and group activities. It is important to have assignment formats that allow students to work in small groups, during class time. Small groups makes coordination easier and caters well for both expressive and less expressive students. While typical out-of-class projects may already serve this purpose, allotting class times towards such activities would give greater incentives to all members of a team to participate, as they would expect to be observed by the class instructor. It is however important to have variations on the style of supervision over such activities. While constant supervision may increase student engagement, it may hinder students' eagerness to express themselves freely amongst their peers. For instance, some students may be reserved about asking questions to each other, which *they* feel may be perceived to be fundamental or trivial by the instructor. Therefore, to improve the quality of their exchanges, and thereby promote the free flow of ideas, it is important to give them a space to work with each other, without supervision, for at least a portion of the class time. Due to practical constraints, it may be difficult to implement unsupervised sessions in a brick-and-mortar classroom setting. However, with the advent of modern video-conferencing tools such as Zoom, an instructor may set up private video chat rooms (e.g. Break Rooms in Zoom) for a short period of time which can be used to allow small teams of students to perform a particular activity. Finally, I think the fundamental ingredient towards collaborative learning (and all forms of learning) is interest. Towards fostering interest, it may be a good idea to design short in-class team contests, where students get to work on problems in teams, present their solutions to the class, and address questions in a scored game setting. From experience, such activities are likely to induce fun and excitement among the students, and thereby further increase their collaborative engagement towards solving problems and learning.

References

- [1] Michele Biasutti, A comparative analysis of forums and wikis as tools for online collaborative learning, *Computers & Education*, Volume 111, pp. 158-171, 2017

 http://www.sciencedirect.com/science/article/pii/S0360131517300787
- [2] Bertakis, Klea. The Influence of Gender on the Doctor-Patient Interaction, *Patient education and counseling*, 2009
- [3] Holland, Caroline; Clark, Andrew; Katz, Jeanne and Peace, Sheila, Social interactions in urban public places, *Public Spaces, Bristol, UK: Policy Press*, 2007
- [4] Erin Ryan Harbaugh, The Effect of Personality Styles (Level of Introversion- Extroversion) on Social Media Use, *The Elon Journal of Undergraduate Research in Communications*, Vol. 1, No. 2, Fall 2010