Direct Tutor Moderation of Synchronous Discussions: The Importance of Involvement and Personalization

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Abstract

Research on Computer Supported Collaborative Learning (CSCL) is deeply rooted in constructivism and focuses on the role of peer collaboration in learning and development. Whereas important insights have been obtained on collaboration mechanisms and the role of task design, the role of the teacher has not been considered with the same intensity. This study reports on first findings from qualitative analyses of tutor moderation practices in a synchronous discussion environment. The analyses show that the use of generic scaffolding prompts meant to improve students' reasoning were overall ineffective and unappreciated. They also revealed the importance of involvement and personalization of moderator interventions. The potential reasons for these findings are discussed in terms of design and communication formats.

Keywords: E-moderation, argumentation, synchronous discussion environments, scaffolding, tutor.

Introduction

Whereas the prescriptive literature on human e-moderation is abundant (e.g., Salmon, 2000), empirical research is sparse and its focus has mainly been on the facilitation of e-courses (e.g., Goodyear, Salmon, Spector, Steeples & Tickner, 2001) and moderation of a-synchronous discussion formats (e.g., Anderson, Garrison, Rourke & Archer, 2001; Lim & Cheah, 2003), but not on moderation of synchronous discussion environments.

Effective moderation in synchronous discussion environments may take a somewhat different form (Lund, 2004). Not only is the role of the moderator expected to be more demanding in terms of time pressure and cognitive load (Packham, et al., 2006), differences in software affordances and the nature of synchronous group communication may also qualitatively change the role of the teacher/tutor and the definition of what constitutes effective moderation in such environments.

The focus of the present study is then on e-moderation of synchronous group discussions in a learning environment. The type of discussions investigated are argumentative discussions conducted within the Digalo environment (http://zeno8.ais.fraunhofer.de/digalo/index.html) which enables textual talk through mediation of geometrical shapes that represent different dialogical moves. As part of an international initiative to study e-moderation of synchronous argumentation (http://www.argunaut.org), we have previously reported on students' perspectives of e-moderation (Asterhan, Gil & Schwartz, 2008) and different moderation profiles (Gil, Schwarz & Asterhan, 2007). In this paper, findings are presented from an exploratory study on the effectiveness of generic versus content-specific types of moderator interventions in terms of discussants' evaluations and responsiveness. The tutoring literature has

shown that generic scaffolding prompts that are meant to elicit explicit articulation of individual understanding, explanations and elaborations are particularly effective for learning process (e.g., Chi, Siler, Jeong, Yamauchi & Hausmann, 2001).

Method
Participants
Sixteen students from the Education department at the Hebrew University of Jerusalem who participated in a Masters course on educational technology in the classroom.

Procedure
Moderators in this set-up were all first-time peer moderators of on-line discussions. They were randomly chosen and assigned. They were instructed to be "the teacher in this discussion", but apart from that general instruction, they were not encouraged to moderate according to a any particular moderation style (*intuitive* moderation). The question that was put up for discussion was as follows: "Technology in education: a complete waste of time?". Students were encouraged to use and apply the knowledge they had learned during the course. Following the moderated discussions, students were administered a short questionnaire on e-moderation which among others assessed their satisfaction of the moderator and his/her moderation practices.

Analyses
In this section we will describe and analyze the practice of three different tutor moderators:

Moderator 1: Generic scaffolding prompts
The first moderator posted six contributions to the discussion (25% of total). All of them contained clearly identifiable pedagogical scaffolds meant to elicit further reasoning, deepening, elaboration, or examples. This moderator's scaffolding prompts are characterized by their generic nature and their lack of specific reference to content or newly introduced information. Typical interventions are, for example, "What do you mean?" or "Can you give an example?".

As for students' responsiveness to these generic scaffolding prompts, two of these did not elicit any response whatsoever, whereas two other prompts each received a link to one other, albeit irrelevant contribution. The two remaining prompts managed to elicit relevant responses, four and one, respectively. However, she did not follow up on any of them. This moderator did not reveal her own personal standpoint at any point during the discussion.

In this synchronous discussion the use of generic scaffolding prompts was not appreciated, nor did they lead to a particularly productive discussion: The questionnaires revealed that discussants were dissatisfied with this particular moderation style and the quality of the discussion. They reported that she was too passive, she did not challenge them, she did not steer the discussion enough and that they did not really feel her presence.

Moderator 2: Personalized scaffolding and the importance of involvement
The second moderator made 10 contributions (33% of the total). She used a variety of different moves: At the start of the session she posted a message that was meant to encourage participation ("Guys, where are you?"). In two other contributions she attempted to deepen the discussants' reasoning with generic scaffolding prompts, but did not receive a response.

In contrast, three other scaffolding prompts were of a content-specific type and elicited their intended reactions from discussants. For example, one even triggered a quite long and

interesting thread of 12 contributions in the discussion map: In contribution 7 the moderator reacted to a rather vague posting with the following response: "So… are you saying [claiming] that if we don't start using technology, then there is no progress in education?". Her request for elaboration and/or clarification was not formulated in a generic manner; instead she took the liberty to interpret the contribution as she understood it and asked the student whether this is what he meant, thus anchoring her request in a particular framework of meaning.

Four other moderator contributions were identified as being of the *involved* type (Gil et al, 2007), according to which the moderator clearly acts as one of the discussants and actively participates in the discussion by articulating and defending her own position. It should be noted that this particular moderator phrased her involvement in a very gentle and non-confrontational manner.

The discussants' evaluations of this moderator were very positive. They emphasized the fact that she aided in raising awareness to certain contributions in the map, stimulated the discussion, opened up new perspectives, was active and responsive and expressed her personal opinion.

Moderator 3: The devil's advocate
The last moderator also posted 10 contributions (37% of the total). Only two of his 10 contributions were generic: In one instance he made an *organizational* move (Gil et al, 2007) and the other concerned a generic scaffolding prompt. No response was received.

At first glance, each of the remaining eight moderator's interventions should be categorized as testifying of an *involved* style (Gil et al, 2007), according to which the moderator acts as an equal-status discussant. However, when this surface is scratched off it becomes obvious that he is not actually revealing and defending his own personal standpoint, but has purposefully adopted a unique moderator strategy best described as *playing the devil's advocate*: He challenged claims or reasons proposed by discussants by doubting the relevance of the supporting reason, hinting at an example that could prove otherwise, or posing challenging question. Moreover, at the start of the discussion he posted three different contributions, each reflecting a different standpoint towards the topic of discussion. Even though each expresses a clear standpoint within the discussion, it is obvious that the moderator posted these contributions to provoke reactions from the discussants and frame the discussion.

Students' responsiveness to this moderators' contributions were relatively high. His moderation style succeeded in eliciting discussants to elaborate their standpoints and articulate rebuttals to his challenges, thus improving the overall quality of reasoning in this discussion.

The discussants' evaluations of the moderator and the discussion were very positive: He was referred to as an "excellent" to a "good" moderator, who related to all the discussants, elicited explanations and was involved in the discussion.

Discussion
In contrast to our findings, generic scaffolding prompts have been found to be typical of productive tutoring (Chi et al, 2001) and teacher scaffolding of reasoning (Mercer, 1995; Wegerif, 1996; Yackel, 2002)? The following possible explanations for this discrepancy are proposed: First of all, it is likely that the lack of non-verbal cues, in combination with the scattered and non-chronological nature of a discussion in this type of synchronous on-line communication formats significantly diminishes the extent of overall inter-subjectivity between discussants. Moreover, the lack of a linear order of postings in a discussion map may in addition

burden the cognitive load of participants. As a result, a (moderator) communication has to be more explicit and specific, both in order to be noticed as well as to be properly understood.

Another reason may be found in the specific design of the discussion environment: In our settings, the moderator's contributions are and remain part of the discussion map which, in contrast to regular face-to-face communication, is visualized on-screen. The discussants' evaluations revealed that generic prompting was interpreted to testify of detachment and a lack of interest. Visually, moderator postings are an integrative part of the discussion map and may therefore be regarded as part of the common product that is constructed by all participants, for which all share a common responsibility. By (seemingly) not actively participating in the discussion, the moderator is not perceived as contributing to the discussion. If this is true, then different moderator-discussant interaction designs should yield different results: For example, it is possible that if the moderator comments will be communicated through a separate channel, instead of being posted *within* the discussion map itself, generic scaffolding prompts and orchestrating types of moderator interventions may prove to be more effective and/or appreciated.

We intend to further explore these potential differences between direct and indirect moderation in future research with the ARGUNAUT system which allows moderation through a separate channel of communication.

Acknowledgements

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