Helping the Tutor Facilitate Debate to Improve Literacy using CMC

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Abstract

Recent research has shown that Computer-Mediated Communication (CMC) in the form of synchronous chat can help students develop their debating skills. However, there are difficulties in learning to use chat to debate. The roles of the tutor in such debates was observed with the aim of designing chat tools that better support the tutor in facilitating students' learning. In particular a design for a system CHATTERBOX is proposed which is aimed at providing support (a) through the use of dynamic graphical displays that monitor student participation and (b) through the use of sentence openers that not only assist the composition of turns but help provide feedback on the balance of different kinds of contribution made by students and the tutor during chat.

1. Introduction

The attraction of Synchronous CMC chat as an interpretative zone that enables participants to share and debate multiple perspectives lies in its potential to offer shy or more reflective students an environment where they need not worry about interrupting the flow of a conversation that has “moved on” [1, 2]. CMC allows students more opportunities to speak than in traditional classrooms, increasing the number of occasions that they are able to practice debating skills. These CMC “advantages” stem from an apparent “disadvantage” - the violation of normal turn-taking caused by not being able to “see” or “hear” other participants in the process of “speaking”. The result is the non-adjacency of related turns and many overlapping and parallel threads of conversation. Together with the phenomenon of screen roll-off this means that coherence is affected. It follows that the tutor is faced with a number of unique management problems arising from using the medium.

2. The rationale and aims of the course

This report is based on observations of an on-line literacy course for students aged 13-15 at the Chapeltown and Harehills Assisted Learning School (CHALCS), an after school learning centre situated in a deprived inner city area of Leeds, UK. The project serves the needs of local young people, most of whom come from Asian or Afro-Caribbean backgrounds – many speaking a first language other than English. The programme, DaRE (for Discussion and Reporting Electronically), makes use of a WebCT™ virtual learning environment (VLE) which incorporates a synchronous chat tool. The course aims to develop students' understanding of a topic and debating skill by using the chat tool to help them express themselves in writing. The class tutor acts as a facilitator of chat debate. Recent research on the effectiveness of the course "showed improvements in fluency, confidence, argumentation and awareness of audience” [3]. This study observed on-line tutors facilitating chat debate. Observations are based on 2 classes each with networked computers sufficient for the tutor and a maximum of 14 students.

3. Problems in facilitating debate

From the observation of the tutors, it was evident that facilitating debate is affected by non-adjacency of turns and screen roll-off. These phenomena make the tutor’s role cognitively demanding. This is compounded when the tutor’s concentration is interrupted by the need to intervene to deal with a behaviour problem. When this occurs, (he) she will have to either:

(a) do nothing and hope that they will pick up the gist of the argument later on;
(b) scroll the chat screen back to read intervening dialogue.

The latter strategy risks missing continuing conversation and is limited since the screen record can only be rolled back so far - early conversation eventually disappears altogether from the screen (though it is kept in a log file). Our aim is to assist the tutor with such problems through the redesign of chat tools.

4. Using colour to help monitor discussion

One of the main difficulties for the tutor in monitoring participation is locating previous messages and attributing them to individuals. Given the monochrome nature of the current WebCT™ chat window, one solution is to
differentiate each student message by assigning a unique colour to their text. Preliminary results based on the use of Yahoo Messenger™ indicate that this solution offers some advantages. Our design differs from Yahoo Messenger™ and similar tools in enabling the tutor to control the assignment of colour. In our design tutors are able to set permanent colours to each participant so that they can identify and refer to each student based on the colour of observed text, not just in one chat but throughout the course. By observing colour-coded messages the tutor can judge the proportion of the conversation contributed by each student. In addition, such a device could be used to help tutors to quickly find individuals’ previous messages.

5. Using meters to help monitor discussion

Another difficulty in effectively facilitating discussion is in identifying those who are inactive in the chat – lurkers. A tool that could dynamically provide the tutor with visual clues to student interaction patterns is proposed. The tool is based on Babble’s “social proxy” meter [4]. Instead of representing persistent numbers of threaded synchronous and/or asynchronous conversations that participants can move between, it represents the degree of active participation in a single synchronous debate. In this debate (large circle in Figure 1), each participant is represented by their colour and image on their “marble”, with the colour of each marble matching the tutor's assignment of colour for viewing messages in the conversation window. When a participant sends a message their marble moves towards the centre of the circle and then drifts outward with inactivity. This should help bring inactive students to the tutor's attention. The tutor can then encourage these students to participate.

6. Using “sentence-openers” to coach debate

Many students at CHALCS lack debating skills. A number of researchers have pointed towards using predefined lists of “sentence-openers”, opening phrases that can be grouped into move types such as statements, checks, challengers, counters and conclusions [1]. The use of sentence-openers by students has been shown to improve student reflection [5]. As part of an initial investigation into their use, one of the tutors at CHALCS is being encouraged to use sentence openers to model and describe appropriate example turns. Tracking their use provides an easily automated way to assess the balance of preferred moves adopted by students to help monitor their changing skills.

7. The CHATTERBOX design

Combining the ideas outlined above, our proposed chat tool called CHATTERBOX is illustrated below. A prototype is in the early stages of implementation and is expected at the end of 2001.

8. Conclusions

The job of the tutor in facilitating high quality debate is extremely cognitively demanding. A design for a system CHATTERBOX is proposed which is expected to assist the tutor via the use of dynamic graphical displays and the categorization of sentence openers to identify individual student contributions and monitor levels of their participation. This should, in turn, release the tutor to concentrate on maintaining class focus, modeling and scaffolding the acquisition of key debating skills.

References