

Argumentation and text-based conferencing: Who is learning and what is being learned?

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This paper focuses on the use of computer mediated communication (cmc), specifically text-based asynchronous conferencing. It reports on two small scale studies which investigated its use as a medium for developing students' argumentation skills. The first study focused on a postgraduate distance program in Applied Linguistics whilst the second study focused on an undergraduate distance program in Health and Social Welfare. Both programs were delivered by the Open University, UK and students represented a diverse population with regard to age, ethnicity, educational achievement and geographical location.

The paper discusses the use of a linguistic framework to investigate how teachers and diverse communities of students are using cmc to develop new ways of exchanging views on academic ideas and issues. Argumentation was focused on because a fundamental aim of education is to develop in students a critical attitude towards knowledge, and the ability to engage in reasoned debate (Terenzini, Spinger, Pascarella, & Nora, 1995). Claims have been made that asynchronous conferencing is particularly effective in enabling students to reflect on, elaborate and challenge ideas put forward. The suggested framework allows researchers to systematically examine such claims and to gain insight into individual and collective processes of argumentation and learning.

Keywords: computer mediated communication, asynchronous text-based conferencing, distance education, linguistic framework, argumentation

Asynchronous text-based conferencing

Over the last decade, conferencing using asynchronous text-based computer-mediated communication (hereafter electronic conferencing) has come to be recognized as a useful pedagogic resource for developing students' skills in argumentation (Andriessen, 2006). By argumentation, we mean the ability to present well supported and reasoned claims as well as to engage with alternative points of view – challenging, critiquing, reinforcing or defending them where appropriate. Certainly asynchronous conferencing offers students greater time for reflection than ephemeral, face-to-face seminar discussions. As Andriessen (2006; p.199) puts it, electronic conferencing can be described as a 'slow discussion' in which students 'can broaden and deepen their insights about important issues' and educators can 'monitor progress at a relatively slow pace'. Claims about the benefits of electronic conferencing nevertheless remain contentious (Joiner and Jones, 2003).

Also problematic are the existing frameworks for analyzing argumentation in electronic conferencing, most prominently content and interaction analysis. Content analysis, for example, does not provide a picture of how the views put forward by participants are interconnected, which is an important feature of argumentation. Although, in contrast, interaction analysis is designed to do this, nevertheless the perceived nature of the relationship between messages is restricted to *agreement* or *disagreement* and whether these are grounded in evidence, or not. Thus the analysis does not encompass other types of connections between the phases of the argument, for example whether a contribution is an expansion of a previous claim.

The aim of this article therefore is to:

- report on an evolving linguistically informed framework of analysis which, based on earlier work (Coffin, Painter, and Hewings, 2005), is designed to capture the dynamic nature of argumentation within an electronic conferencing environment;
- discuss how the framework can provide insight into individual and collective processes of argumentation and learning and generate recommendations for pedagogical practice.

The research context

Within distance education programs such as those delivered at the Open University, UK, electronic conferencing has become a common means of creating a virtual learning community – bringing together students, otherwise separated by time and geography, to engage with course content at a time of their choosing. Although the purpose of such conferences may vary, in the social sciences and humanities they are often used as a forum for students to exchange their views and perspectives on contentious issues and ideas. We have been funded, initially by the Open University and subsequently by the UK Higher Education Academy, to investigate how effective such forums are for developing students' argumentation skills. Given that that one of the fundamental aims of higher education is to develop in students a critical attitude towards knowledge, including an ability to engage in effective processes of argumentation, this is an important task. To what extent can electronic conferencing provide a means for students to develop such skills? Are lecturers and students who may be relatively inexperienced users of the technology making the most of its affordances?

To date, we have explored two different courses: a postgraduate distance course in Applied Linguistics and an undergraduate distance course (Complementary and Alternative Medicine) in Health and Social Welfare. Both are one year, part time courses in which large cohorts of students are placed in relatively small tutor groups (between 15-20 students). Each group is allocated a tutor who is responsible for conducting several electronic conferences throughout the year. Tutors are provided with tasks for the conferences but are able to tailor these in relation to the needs of their particular group. However, our interview data revealed that new tutors in particular have difficulty conceptualising a tutorial which lasts for days rather than hours and although they are given technical training in the use of the conferencing software (the commercially available *FirstClass* asynchronous system) they are provided with little input in terms of strategies for generating and fostering effective discussion and debate. This is largely because the technology is often as unfamiliar to the course organizers as it is to tutors. Discussions therefore tend to be handled in similar ways to those that would take place in face-to-face seminars. Nevertheless, at the start of a conference, students may be given considerable guidance as to how they might contribute to the discussion, perhaps more so than in a face-to-face discussion. Below is a sample task taken from a conference connected to the Complementary and Alternative Medicine course.

Conferencing task

For this tutorial try and respond to the question:

How realistic are the assumed benefits of statutory regulation?

Please keep these initial messages short (100 words or so) so that everyone gets a chance to read them fairly quickly. You might look at one benefit and consider whether it will fulfil its objective, or you might consider whether there might not also be some negative effects. Or you might like to think about the difference between the benefits and losses of statutory regulation and self regulation. It is the former which osteopathy and chiropractic already have? What do they think about it now it's happened? It's the latter which homeopathy, acupuncture and herbalism are currently seeking to formalise, with the encouragement of FIM. How do their practitioners feel about it?

As in previous tutorials, don't worry if other people have put up initial messages very similar to yours – the main thing is to share some ideas as a starting point for the discussion. You may then find that reading other group members' messages inspire you to think of other things so feel free to post them.

Please keep coming back to this tutorial as often as you can, and respond to at least one message. Your responses might be simply 'conversational', as if you were sitting in a tutorial together, or might include references to course materials or outside sources which you feel to be relevant to your comments. I will be putting up for you in a few days the thoughts of an osteopath about the effects of regulation and some info. about the discussions currently taking place around regulation within the homeopathic profession. I hope you will all feel able to make some contribution, whether it's agreeing with others, quoting a source you have found, expressing your own feelings or entering into controversy. Remember this is not in any way a test. It's an opportunity to explore ideas and information as you prepare your fourth assignment.

To date, we have collected data from conferences taking place at the beginning and towards the end of each of the courses and we have analysed in some detail four different tutor groups within the larger cohorts belonging to each course. This has enabled us to compare the dynamics of groups with similar mixes of students, following the same tutorial tasks. Combined with interview and questionnaire data, it has given us some important insights into the impact of tutor role and strategy and some of the different ways both tutors and students are learning to use the technology.

Framework of analysis

Our research draws on functional linguistics (Halliday, 2004). Functional linguistics provides analytical tools for systematically analyzing the overall structure of an interaction and patterns of language use. Linguistic descriptions of the way in which language is used to achieve educational goals can be used in pedagogic interventions. Tutors and students can be made aware of more and less effective dialogue (Coffin and Hewings, 2005).

Drawing on the analytical tools of functional linguistics we have developed a framework for mapping the typical moves made by tutors and students in the course of debating ideas and concepts in electronic conferencing. A simplified version is set out in Table 1. We use moves such as those illustrated here to analyse conference interactions. With the aid of excel software we are able to track the interconnection of one move to another. For example, each new claim (arguable proposition) is numbered and any related move (such as counter argument or a challenge) is tagged with the same number.

Table 1: Argument moves in electronic conferencing

Argument	Recognition features	Examples
Thesis	An overall position on an issue (at a higher level of generality than a claim) is put forward (i.e. a thesis statement)	<i>The pursuit of statutory regulation may be based on a number of assumptions about the perceived benefits that statutory regulation would offer complementary therapies.</i>
Claim	A contestable proposition relating to how things are (analytic)	<i>I think a community consists of the people in it and the relationships you make.</i>
Recommendation	A contestable proposition relating to how things should be (hortatory), what actions people need to take	<i>It would be good to take the best of orthodox and CAM therapies and give patients a real choice.</i>
Counterclaim	A claim which takes an alternative position to a previous claim	<i>I don't think the therapy needs to become biomedical, but it could carry out 'clinical tests' to prove it is safe and effective – even if the underlying reasons cannot fully be explained scientifically.</i>
Support	A claim is supported through evidence or reasoning (e.g. the use of academic experts, personal and professional experience etc.)	<i>Fulder suggests that statutory regulation for such therapies may not be appropriate.</i>
Agreement	A previous claim is confirmed by a participant agreeing with it	<i>I agree there is much more information about CAM available giving us greater choice.</i>
Challenge	A questioning or criticism of an argument or claim made in a previous turn, (or in a forum outside the conference such as a text book, academic article etc.)	<i>Why would the NHS necessarily mean long hours and less pay? Surely, the therapist could remain independent and work to suit and maybe even charge the same as private work.</i>
Concession	Recognises the validity of an alternative viewpoint whether expressed in the discussion or in another context, or anticipated by the writer.	<i>The NHS may have its faults but ...</i>
Argument prompt	A question designed to stimulate and prompt participants' views on an issue	<i>Are communities now also linked to time as we continually move, breaking old relations and creating new?</i>

Conclusion

Analysis using the linguistic framework displayed in Table 1 makes it possible to generate a schematic representation of the shape of a conference discussion, to ascertain which claims are picked up and lead to a sustained discussion, which are left hanging, which ones provoke challenging moves and so on. We can also track individual student participation to establish whether, for example, certain students favour certain moves and whether they are actively involved throughout a discussion. The same applies to tutor moves. Currently, analysis from the Applied Linguistics data and preliminary analysis from the Complementary and Alternative Medicine course suggests the following are key points.

Tutors need to:

- develop a clear understanding of the purpose/s of electronic conferencing both for themselves and their students
- design/tailor discussion tasks that are a) motivating in their choice of topic b) clear and focused and c) likely to trigger a range of positions on an issue
- ensure that they model for students a wide range of moves (i.e. are not limited to Argument Prompt, Agreement)
- develop students' meta-awareness of the process of effective argumentation e.g. the cumulative, sustained collaborative support for, or challenge of, a position on an issue, careful reflection on the group's positioning and repositioning on an issue, appropriate and effective use of different types of support for a claim

Students need to:

- develop their ability to put forward Counterclaim and Challenge moves rather than be restricted to making claims, agreeing and/or adding support to a claim
- develop an understanding of how different types of support for a claim may vary in different disciplines and in different media (for example, the use of personal experience may be valid in an informal conferencing discussion but may be less appropriate in a formal, written assignment)
- learn to reflect on the direction a discussion is taking/has taken and have the intellectual flexibility to develop (where appropriate, and as an outcome of sustained engagement with a topic) a new position on an issue

As we continue to analyse data in new conferences and in different disciplinary areas, our framework is likely to further evolve. Findings and recommendations emerging from the use of such a framework in different disciplines and different educational levels will be the focus of future research and papers.

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