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Patterns of debate in tertiary level asynchronous text-based conferencing

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Patterns of debate in tertiary level asynchronous text based conferencing

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Patterns of debate in tertiary level asynchronous text based conferencing

Abstract

Argumentation can be defined at different levels and serve different purposes but its role in knowledge understanding and construction has given it a central place in education, particularly at tertiary level. The advent of computer-supported text based conferences has created new sites where such educational dialogues can take place, but the quality of the interaction and whether it is serving its educational purpose is still uncertain. This paper reports on a framework of analysis that has been developed to illuminate the arguing process within an asynchronous electronic conferencing environment, showing how it is both similar to, and different from, argumentation in the more traditional forums of multi-party, face-to-face discussion and traditional written essays. The framework develops earlier work by the authors and is applied to two electronic conferences within the same postgraduate course, comparing overall patterns of argumentation. Findings are presented on the extent to which the technology of electronic conferencing shapes and supports students' participation in academic literacy practices relating to argumentation, proposing, at the same time, that the teaching strategy adopted by the lecturer is also an important variable.

1. Introduction

It has been claimed 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 (Mitchell and Riddle 2000; Terenzini et al., 1995). In our view, effective argumentation involves the ability to present well supported and reasoned arguments as well as to engage with alternative points of view - challenging, critiquing, reinforcing or defending them where appropriate. Traditionally, these argumentation skills have been developed and rehearsed in dialogic interaction in face-to-face seminars, and in individually-authored written assignments. Recently, conferencing using asynchronous text-based computer-mediated communication (hereafter electronic conferencing) has become an alternative (or additional) forum for debate, and claims have been made that it is particularly effective in developing students' ability to argue (Andriessen et al., 2003; Marttunen, 1997a). Certainly it gives students greater time for reflection on their own and others' arguments than ephemeral seminar discussions. Claims about the benefits of electronic conferencing nevertheless remain contentious (Ahern et al., 1992; Marttunen and Laurinen, 2001; Joiner and Jones, 2003).

Also problematic are the existing frameworks for analyzing argumentation in electronic conferencing, most prominently content and interaction analysis. Content analysis (see Marttunen, 1997b), 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 (see Henri 1992; Marttunen 1998) 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

argument or claim.

The aim of this article therefore is to:

- report on a linguistically informed framework of analysis which, based on

  earlier work (Coffin et al., 2005), is designed to capture the dynamic staging

  of argumentation within an electronic conferencing environment;

- show how, by comparing overall patterns of argumentation as well as

  investigating the pedagogic role of individual lecturers (or 'e-moderators'),

  the framework is able to reveal some interesting differences in two electronic

  conferences within the same postgraduate programme;

- propose a set of language informed strategies for aiding lecturers and students

  to maximise the potential of conferencing as a forum for rehearsing and

  developing argumentation skills.

2. Theoretical background

Much of the research to date on computer conferencing has drawn on paradigms from

psychology and educational technology focusing on usability, interactivity, argument and

collaborative learning (Attar, this volume; Thomas and Carswell, 2000; Ellis, 2006;

Schellens and Valcke, 2006; Tolmie and Boyle, 2000). Such approaches often foreground

the potential affordances of the technology and how these may be drawn upon by

students and staff. Ellis (2006), for example, focuses on the experience of students using a writing database, a bulletin board and a word-processor in relation to their writing; Tolmie and Boyle (2000) use psychological approaches to investigate conflict and collaboration in computer conferences. Some studies have shown that the collaborative or supportive nature of many computer conferences encourages self explanation of the learning material which facilitates the integration of new knowledge into existing cognitive structures (Weinberger and Fischer, 2006).

Whilst we take into account the accumulating body of research which has investigated computer conferencing within the paradigms of psychology and educational technology, the perspective we offer in this paper is quite distinct in that our object of investigation is dialogue (specifically argumentation) and our methods of analysis are language focused. Our approach is informed by three main traditions. Firstly, it is underpinned by a socio-cultural view of language as a cognitive and cultural tool used in dialogue to support the construction of shared knowledge (see Kumpulainen and Wray 2001; Mercer 1995; Wells 1999). This perspective informs our conceptualization of educational dialogue within electronic conferencing as supporting students' learning.

The second influence derives from argumentation theory which facilitates our understanding of the specific type of educational dialogue we are interested in. Theoretical modeling of argumentation structure by Toulmin (1958; see also Toulmin et al., 1984) provides useful analytical categories, whilst investigations into a range of discipline areas carried out by educationally based researchers such as Andrews (2005),

Erduran, Simon, and Osborne (2004) and Mitchell and Riddle (2000) offer valuable insights into educational (as opposed to everyday) argumentation practices.

Finally, our research draws on systemic functional linguistics (SFL) (Halliday and Matthiessen, 2004; Martin and Rose, 2003). SFL provides analytical tools for systematically analyzing spoken and written interactions or 'texts' in terms of the relationship between particular aspects of the context (such as the mode of communication and the roles adopted by interactants) and the overall structure of an interaction and patterns of language use. Earlier work by the authors (Coffin et al., 2005; Hewings and Coffin, 2006) has outlined mode and role differences using the data analysed here. Systemic functional analysis offers explicit and 'delicate' linguistic descriptions of the way in which language is used to achieve a range of communicative or educational goals. Such knowledge can be used in literacy and language interventions in order to extend students' control over a range of different types of text or 'genre' (Christie, 1999, 2002; Christie and Martin, 1997; Coffin, 2006a, 2006b; Martin, 1999; Unsworth, 2000).

3. A genre based framework for analysing argumentation in educational discourse
Over the last decade, an SFL based framework for analysing argumentation has been successfully applied in a range of educational contexts (e.g. Coffin 2000, 2004, 2006b; Rothery 1994). In this 'genre based' framework, a piece of argumentation is analysed in terms of the functional 'stages' through which a writer or speaker moves. In a traditional,

single authored (successful) argument essay such stages might typically include a *Thesis* (in which the writer puts forward their claim or standpoint and, optionally, previews the arguments to be discussed), *Arguments*[1] (in which well supported and reasoned arguments relevant to the overall thesis are presented) and *Re-inforcement of position* (in which the writer restates their position, now strengthened as a result of the preceding evidence). These stages are quite consonant with the analysis of argument undertaken within argumentation theory, the main difference being the emphasis given to the linguistic 'make up' of the different stages.

In order to illustrate the stages that comprise a typical written argument essay, we have set out below an annotated (skeletal) response to the prompt - *The age of a learner is more important than personality in learning a second language. Discuss.*

Thesis

(*the writer puts forward their overall standpoint or position*)

- *(**Preview***)

  (*optionally the writer may foreshadow the main reasons/arguments that will be considered*)

Whilst there is some evidence that age is an important factor in predicting how successful a learner will be in acquiring a second language, personality plays a far more significant role. The following essay will consider some of the reasons why the relationship between personality and learning a second language is so important. In turn, I will show how the evidence of research studies and the evidence of professional experience support this position. It will become clear that age is less significant in the process of acquiring a second language.

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[1] In functional linguistics, Argument is conceptualised as a discrete stage within a text comprising a position supported by evidence. In the Argument stage there are particular patterns of language use which are distinct from those in other stages such as Thesis or Re-inforcement of Position. Argumentation, on the other hand, refers to the **overall** process of putting forward and exchanging points of view.

Argument 1

- **Claim**

- **Evidence**

(In each argument stage the writer presents their claim supported by reasoning and/or evidence in the form of research data, academic authority, professional experience etc.)

Based on research evidence, it is clear that certain personality types will be more successful in learning a second language. For example, there is a considerable body of research showing that the characteristics of extroversion such as assertiveness and adventurousness are associated with success (Lightbown and Spada, 2001). Whilst it is difficult to evaluate these research studies without having a clear understanding of the methods employed…

Argument 2

- **Claim**

- **Evidence**

My professional experience provides additional support... As a teacher, I have observed over many years that ….

Counter - Argument 1

- **Counter Claim**

- **Counter Evidence**

(the writer acknowledges an alternative point of view although often this counter argument is weakened in some way so as not to undermine the main line of argumentation)

Some argue, however, that age rather than personality is one of the most important factors in learning language. For example the research evidence of …

Argument 3

- **Claim**

- **Evidence**

In contrast to the previous argument, the research evidence of Snow and Hoefnagel–Hohle (2001) shows that ….

Re-inforcement of Thesis *(the writer summarises the key arguments in order to restate and strengthen their opening position)*

In conclusion, there is considerable evidence demonstrating how personality plays a far more significant role in language learners' success than does their age. This includes research evidence investigating the relationship between extraversion and success…

This brief overview of a genre-based approach to written, single-authored academic argumentation reveals the different stages a writer can move through. Research using a similar framework, but investigating a different mode of communication - multi-party speech (for example, Eggins and Slade, 1997) indicates that in this different context argument does not develop in such a linear fashion and that stages are recursive and the sequencing is variable.

In order to explore the particular structure of argumentation in the context of electronic conferencing we began our research by conducting a detailed analysis of the functional stages within six conferences (conducted with three groups of students and tutors) in which argumentation played a central role (see Coffin et al., 2005). These were all set within a Master's of Education distance-learning program at the Open University, UK and the software used was the commercially available *FirstClass* asynchronous system. The purpose of the conferences was to enable students (otherwise separated by time and geography) to participate - at a time of their choosing - in multi-party dialogic written exchanges. Within these conferences, lecturers facilitated reflection on, and discussion of, aspects of the course content, often in relation to forthcoming written assignments.

As a result of the analysis, it became apparent that a number of stages identified in earlier genre-based studies, namely *Argument, Counter Argument* and *Thesis* were applicable in this context too. However, it also emerged that within electronic conferencing the internal organization of a stage such as *Argument* may not be as stable or as linear as that seen in traditional written argumentation; and also, that there are a number of distinct stages which play an important role, at least within the applied field of education. All these stages, together with an informal description (and sample text where relevant) are set out in Tables 1 and 2. It can be seen that, in keeping with our aim to capture the dynamic, interactive nature of conferencing, these have been categorized as either initiation (coded as I) or response (coded as R) stages. An *Argument* or *Personal Assertion*, for example, may initiate a fresh exchange or may relate to a prior *Argument* or *Argument Prompt*. An earlier version of the framework (Coffin et al., 2005) did not do this comprehensively with the result that it was difficult to ascertain the degree of connectedness and cohesion within the conferencing.

It is also important to note that in some stages there are 'embedded' elements or sub-stages, which we have also labelled. For example, an *Argument* stage consists of *Claim* and *Evidence*. In some stages not all of the sub-stages need occur (i.e. they are optional) and this is indicated by brackets. For example, as part of a *Challenge* stage a participant may or may not qualify their criticism by accepting an aspect of the position they are critiquing (an optional element labelled *Concession*).

Table 1 around here

Table 1 sets out initiating stages in which participants provide a starting point for the exchange of views and perspectives, while Table 2 displays the choice of response stages. It should be noted that, as Howell-Richardson and Mellar (1996) emphasized, within a single conference message there may be more than one stage (or in their terms 'dialogic move'). (See also Hewings and Coffin (2006) on how feedback may be incorporated within the stages).

Table 2 around here

4. A comparison of two electronic conferences

As stated earlier, we were interested in examining how argumentation in computer conferencing may be influenced not only by the dialogic affordances of the technology but also by the role of the lecturer responsible for the conference. For this reason we selected for comparison two of the three introductory electronic conferences for parallel groups in the distance masters in education program. Introductory conferences were chosen because they were more active than the later conferences. The two selected conferences are referred to here as conference A and B. Each was run by male lecturers with their own particular approaches who are referred to as lecturer A and B. We decided to focus on these two conferences because the number of messages posted was comparable. Common to both groups was the topic for discussion (*Factors affecting*

second language learning) and the fact that all students were to be given marks relating to their 'ability to put forward a point of view in an electronic discussion environment'. The majority of students were practicing English language teachers and so it was expected that their experiences in the field would be seen as valuable and relevant by their lecturers, as is the case in various areas of education and other domains of professional development (Stierer, 2000). Both conferences took place over a period of approximately three weeks.

Tables 3 and 4 set out the number of times each initiation and response stage occurred in the two conferences. Given that the number of student messages (as opposed to argument stages) in each conference was very similar (80 messages in Conference A and 87 in Conference B), the data lends itself to this kind of direct comparison.

Table 3 around here

Table 4 around here

From the analysis, it is apparent that, although there were some similarities, the process of argumentation developed in quite distinct ways in each conference. Below we discuss the key trends, proposing possible reasons for the patterns of argumentation in each conference - in relation to both the mode of communication and the roles taken up by the two different lecturers.

4.1 Key points of similarity

There are two main trends that are similar across both conferences:

- relative to the frequency of initiation stages there is a surprisingly low frequency of response stages

- there is a relatively low frequency of Challenge, Counter Argument/Claim and Thesis stages

In relation to the first point, it seems likely that the technology combined with lecturer strategy, allows the discussion to unfold in ways that may not create a highly cohesive, interconnected exchange of ideas (a finding similar to that of Love and Simpson's study of the primary school online discussion, this volume). It is likely, for example, that for some students an easier option may be to initiate an exchange in the form of a Personal Assertion, Argument or Reasoned Observation rather than respond to previous opinions and ideas by intellectually engaging with and extending or critiquing them (cf. Goodfellow's findings (this volume) on students' lack of critical engagement with academic literacy practices). The second and related point shows that students are particularly reluctant to respond to previous messages by critiquing and countering them. Possible reasons for this absence of more 'heated' debate include the frozen nature of electronic exchanges (in which criticism 'sticks') and a concern to foster a positive interpersonal atmosphere (see Painter et. al., 2003). Thus, while recognising the benefits of collaborative, consensual approaches to knowledge construction in online

environments (Salmon, 2004; Schellens and Valcke, 2006), it may be nevertheless of some concern that an emphasis on creating a positive, collaborative environment appears to threaten the extent to which students feel comfortable with interrogating and challenging peers.

Finally, the Thesis stage barely features in Conference A and is absent in Conference B. This suggests that a hierarchical ordering of information in which an individual's overall position, or one emerging as a result of collective debate, does not easily occur within the context of electronic conferencing. In pedagogical terms, this may be a missed valuable opportunity in terms of pulling together, synthesising and abstracting the most significant strands of the argumentative dialogue. It is also likely that such a stage would give cohesion and closure to what otherwise may remain as disconnected chains of ideas.

4.2 Key points of difference

Tables 3 and 4 show that the two conferences differed in a number of ways. They differed not only in the extent of interaction, in terms of the number and proportions of initiations and responses, but also in the types of stages favoured. Conference B had more Arguments, Prompts, Claims and Challenges while Conference A had more Reasoned Observations and Expansions of Argument and Expansions of Reasoned Observations. These differences are commented on in more detail below.

Initiations and Responses

- There are approximately 1.5 times as many initiation stages in Conference B as in A

- There are approximately twice as many response stages in Conference B as in A

- There is a higher proportion of responses relative to initiations in Conference B (82 R to 53 I) than in Conference A (42 R to 33 I)

It is clear that, despite the similar number of messages across both conferences, Conference B participants engaged in a greater number of both initiating and response stages - 135 stages as opposed to 75 in Conference A. Significantly, the findings also show that not only were Conference B participants more involved in the argumentative process but they were more active in engaging with prior ideas (as evidenced in the higher proportion of responses relative to initiations). This had the effect of creating a more cohesive and interconnected debate and is, following Joiner and Jones (2003), an important indicator of a difference in the quality of argumentation across the two conferences, a view supported by previous analyses of interactions in this data (Hewings and Coffin 2006; Painter et al., 2003).

Types of stages more frequent in Conference B than in Conference A

- There are approximately 3 times as many Argument stages including both initiating and response stages.

- There are approximately 4 times as many Personal Assertions

- There are 5 times more Claims

- There are 6 times more Challenges (although a relatively low frequency in both conferences)

- There are 32 Argument prompts in Conference B but only 1 in Conference A

As highlighted above, Conference B participants are considerably more active in putting forward Claims and Arguments which in turn appear to foster further exchange of Arguments and Claims. The greater frequency of Argument Prompts is also a likely contributing factor. Finally it is significant that participants in this conference challenged each other more often.

Types of stages more frequent in Conference A than in Conference B

- there are twice as many Reasoned Observations and Reasoned Expansions of Observations

- There are four times as many Expansion of Argument stages

The two trends above reveal that participants in Conference A engaged in the argumentative process in quite a different way to those in Conference B. Their approach

was one of putting forward Reasoned Observations relating to relevant personal or professional experience which simultaneously enhanced the collaborative, interpersonal dimension. These observations were then cumulatively built upon through further shared experience and reasoning (i.e. Reasoned Expansion of Observations). Similarly, arguments tended to be expanded by adding evidence or reasoning, a move which happened less frequently in Conference B possibly because Argument Prompts were more likely to 'intervene' in the discussion and trigger fresh responses and directions.

As the conferences shared the same mode of communication, differences between them were likely to be (at least partly) explicable in terms of the roles adopted by the lecturer, so we also analysed the data to ascertain whether there were distinct patterns in terms of the stages taken up by each of them. The results from this analysis are presented in Table 5.

Table 5 around here

Table 5 shows that one of the most salient differences in terms of lecturer participation is the degree to which lecturer B takes a more interventionist role and becomes involved in the process of argumentation and the degree to which lecturer A appears to take a more facilitative role and is absent from it. It seems likely that the greater number of stages in Conference B (135) compared to Conference A (75) can at least partly be accounted for by the degree of stimulation provided by lecturer B in the form of argumentative prompts: whereas lecturer A is responsible for only 1 Argument Prompt, lecturer B is

responsible for 28 of the 32 in his conference. On the other hand, it is interesting to note that, in follow up interview data, lecturer B clearly had some concern that "the moderator can push her/ his "own line" too much" and generally felt uncertain about how much he should be intervening in the discussion. It also seems relevant that the students themselves engaged in very little prompting, suggesting that the extent of his intervention may have inhibited them.

What is also striking about the findings from the analysis of tutor stages is that, although it is evident that lecturer B prompts and supports students' involvement in the process of argumentation (through Argument Prompts and Requests for Clarification/Definition), like lecturer A, he does not himself directly engage in putting forward Arguments, Claims or Reasoned Observations. Particularly significant is the fact that apart from one Counter Argument (on the part of lecturer B) there is little expert modelling of how to constructively challenge alternative views. If a fundamental aim of debate and discussion is to develop critical approaches towards knowledge (Terenzini et al., 1995), then the absence of teacher/expert exemplification of how to critique and debate ideas and points of view seems problematic.

In Conference A, the relative absence of Argument Prompts by the lecturer may account for the high number of Expansion of Arguments, a positive feature of that conference's discussion. That is, given the lack of prompting and questioning by their lecturer, Conference A students were obliged to engage with the argumentative lines generated by their peers. Likewise the data shows that they had greater opportunity to draw out

generalised and therefore arguable claims from Reasoned Observations (which occurred far more frequently than in Conference B). Nevertheless, this does not seem to have resulted in greater involvement in the debate overall (as evidenced by the overall lower frequency of argument stages).

5. The effect of technology on language and literacy practices: the pedagogic implications

From the previous discussion, it is clear that electronic conferencing influences how students debate and exchange information and points of view. It is also clear from our comparison of two conferences set within the same educational program that individual lecturer strategy plays an important role. In this section we summarise and comment on some of the ways in which the relatively new technology of text based, asynchronous conferencing is changing the language and literacy practices associated with argumentation. We go on to propose that the technology may only be pedagogically effective in developing students' ability to exchange and negotiate points of view if its distinct characteristics are explicitly acknowledged and exploited judiciously by the conference moderator/Lecturer.

5.1 The effect of technology on argumentation practices

5.1.1 The degree of dialogism in the process of argumentation

Whereas some argumentation stages are more like a move in a dialogue (particularly moves such as Argument Prompt or Request for Clarification), others (such as Argument

or Reasoned Observation) are more like an extended 'chunk' of formal written text. All types of stages, however, have the potential to respond to previous 'turns' or prompt subsequent 'turns' and therefore are all dialogic to some extent. In other words, the technology provides students with the potential to create and sustain a dynamic interplay of ideas and views. And, because the ideas are not ephemeral and do not need to be responded to in real time, students have the opportunity and reflective space to select and respond to those they are interested in. However, the degree to which they take up this potential seems to vary considerably - not so much as a result of the technology but, as previously commented on, as a consequence of other variables, such as the role of the lecturer.

5.1.2 Sequencing and cohesion in the process of argumentation

As noted in Section 3, in electronic conferencing, the sequencing of Argument stages tends to be less linear than in traditional essay-based argumentation, for example a Claim may emerge out of evidence rather than preceding and 'framing' it. Another distinctive feature that emerged was initiation stages (such as Argument Prompts) that are never explicitly responded to. One reason for this may be because other threads intervene and dominate the direction of the argument. As commented on previously, another possible reason is that participants in computer-mediated discussions are more likely to focus on their own contributions rather than take account of each other's messages. In Joiner and Jones's study (2003), 15% of utterances were not connected to previous utterances compared to only 3% of utterances made in a parallel face-to-face discussion. Although this finding does not preclude students' silent, internal engagement with, and response to

their peers' contributions, it may lead to a somewhat disjointed discussion. Some students may also react negatively to the fact that their contribution or their point of view, is seemingly not of interest and is ignored. This suggests that students need greater direction in how to participate in conference discussion.

5.1.3 The co-construction of arguments

The third characteristic of argumentation as shaped and influenced by the technology of electronic conferencing is the degree to which arguments may be collaboratively co-constructed. This finding extends previous research on the collaborative nature of electronic conferencing to show how arguments may be reinforced and strengthened through additional evidence as in the Expansion of Argument stage or are modified and refined in response to Requests for Clarification, Challenges and Counter Arguments. In addition, in professionally oriented fields such as education, arguments may take shape as a result of shared field experience (presented in the form of Reasoned Observations). This cumulative process is clearly demonstrated in both conferences where there is a strong pattern of participants reflecting on and drawing out generalisations from their shared experiences. From a pedagogic perspective, this opportunity for reflective engagement should perhaps be seen as one of the strengths of electronic conferencing.

5.2 Developing students' ability to exchange and negotiate points of view: some pedagogic implications

A face to face tutorial can last a couple of hours whereas electronic conferencing can last weeks which helps to formulate ideas and think about things longer. So I

feel it helped me reflect more and think about ideas more deeply and consider

other peoples opinions in relation to my own…it also helps to see your ideas and

thoughts in writing sometimes, and to have other people's ideas there to refer to

later…

(extract from interview with Conference B student)

Talking is more spontaneous, I can use my arms and hands to talk, I can see if the

others follow me, I can rephrase, and change my form of expression, as I am

talking, and clarify more. It's a different genre. For me, the Internet was always

only for informal emails, and writing academically was a very different style;

these conferences are somewhere in between, and I still haven't 'found myself' in

that style

(extract from interview with Conference B student)

The above extracts from interview data collected from participants provide insight into

why some students may perceive that the medium of electronic conferencing develops

their ability to discuss and exchange views whilst others see its language and literacy

practices as perplexing, hindering their ability to communicate. In this final section we

propose a set of strategies for aiding lecturers and students to maximise the potential of

electronic conferencing as a forum for rehearsing and developing argumentative skills.

These strategies were devised primarily as a result of our linguistic analysis but also took

into account findings from the interview data. In sum, we would argue that the quality of

argumentation and learning may improve if lecturers:

1. organise and structure discussions so that there is a greater 'take up' of response stages. This may entail encouraging/requiring students to read prior messages and to respond to and resolve Arguments and Challenges before moving on to a new line of argument;

2. use Argument Prompts to ensure that students develop Claims on the basis of shared Reasoned Observations (i.e. move from specific incidents to generalisable propositions) ;

3. use Requests for Definition or Clarification where ideas and points of view are unclear;

4. explicitly encourage/require all students to develop certain lines of argumentation. For example, all students could be asked to contribute at least one Argumentation Prompt or Request for Definition/Clarification. Such a strategy would prevent students from assuming that questioning is a pedagogic function reserved for the lecturer;

5. model in a constructive, unthreatening way, Challenges, Counter Claims and Arguments. These could be directed initially at published research/theory/ideas before making students' own points of view the target of interrogation and critique;

6. *explicitly encourage or require students to challenge and counter fellow students at the point when they feel comfortable with both the technology and each other. (see Painter et al., 2003, for an analysis of the strengths and weaknesses of different activities which aim to encourage students to challenge and counter);*

7. provide Thesis stages at key points throughout the discussion in order to pull together the overall position/s taken by participants. This would enable students to take stock of the argumentative direction up to that point as a basis for continuing or changing direction.

Conclusion

The analytical framework presented here has developed earlier genre based models of argumentation discussed in Section 3. Its application to computer conferencing has shown how the structure of argumentation may be influenced by both the mode of communication and the role of the lecturer/moderator. We suggest that lecturers responsible for debates in electronic conferencing may need to make particular kinds of interventions (such as those outlined above) in order to maximize students' practice of argumentation skills in an environment which has distinct advantages but which is still a relatively unfamiliar pedagogic site. The analysis has thereby demonstrated the importance of researching language use as a means of illuminating the teaching-learning process, particularly in changing educational environments where technologies are playing an important role in shaping new language and literacy practices. To carry out this task, we devised a linguistic framework of analysis which captures both the diversity of stages that make up the process of argumentation and how these interconnect within an electronic conference. We are currently undertaking further research to ascertain how well this framework copes with argumentation in different disciplines and at different academic levels.

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Tables

Table 1 Initiating argument stages

Initiation Stages	Description and sample extracts from conferencing data
Argument (I) • Claim • Evidence *(NB the elements claim and evidence can occur in any order)*	A specific, contestable proposition supported by either evidence (e.g. professional/ personal experience, observation, research findings, theory etc.) or reasoning (in the form of causal sequences, including a 'reasoned observation' (see below). e.g. *I think that the most important factor for second language learning is motivation* (followed by evidence in the form of '*observations in social environment*' followed by evidence of classroom experience and '*a motivation system I have been working with…*').
Argument prompt (I)	A question designed to stimulate and prompt participants' views on an issue e.g. *…I guess that leads back to the question of whether central authority has positive or negative effects on perceptions and production of standard languages. What do people think?*
Claim (I)	A contestable proposition not supported by either evidence or reasoning. *e.g. I think sometimes teasings can be a big hindrance in learning the language.*
Challenge (I) • (Concession)	A questioning or criticism of a view. (when 'initiating' it is in response to an idea, theory, argument put forward in a forum outside the conference such as a text book, an academic article etc.) e.g. *I live in an area of Germany that speaks High German and have had fair success in pronunciation, finding it easy for some reason. This is contrary to what Lightbown and Spada stipulate as I am definitely an older learner.*
Thesis (I)	An overall position on an issue (at a higher level of generality than a Claim) is put forward (i.e. a thesis statement) e.g. *As so many factors are inter-related, it's difficult to isolate the effects of a single factor. Also, individual variations are often more significant than specific factors.*
Personal Assertion	A proposition which is based on personal experience and therefore not generalisable and not open to debate e.g. *My exclusion comes from my own unwillingness to accept differing cultural expectations. I often find it hard to be forthright in German, chosing indirect, rather rambling constructions and coming over as very unassertive and weak, instead of just adopting the terms and phrases around me.*
Personal Assertion Prompt	A question designed to stimulate participants' personal experience e.g. *Another question: I feel I shall never really become fluent as I am never really immersed in the language. Does anybody else feel this way?*
Reasoned Observation	A recount of an event or state of affairs integrating a degree of reasoning (words in bold) e.g. *For me one of the joys of learning German has been my increasing ability to better understand culturally based referential meaning in the language. As my skill in German has increased **so** has my understanding of German society (and vice versa), **meaning that** I've found myself better able to understand and enjoy cultural references (and humour!) in both spoken and written forms.*
Request for Clarification/ Definition	A request for a position to be clarified or terms to be defined e.g. *mmm, Sheila, what do we mean by "fluency" here?*

Table 2 Responding argument stages

Response Stages	description and sample extracts from conferencing data
Argument (R) • Claim • Evidence	A contestable proposition supported by either evidence or reasoning (when responding, put forward in response to previous message such as argument prompt)
Claim (R)	A contestable proposition not supported by either evidence or reasoning (when responding, put forward in response to previous message such as argument prompt or personal assertion).
Qualification of Argument or Claim	An argument or claim is modified and qualified e.g. *Thanks Susan for your reply to my comment. You're absolutely right! Perhaps I should have qualified my statement a bit more, writing instead that 'quite often an inhibited learner reduces the opportunities she has to engage in the target language' (and therefore is not as 'successful' in her language learning as she might be).*
Re-inforcement of Argument, Challenge or Claim	A previous argument, challenge or claim is confirmed and reinforced e.g. *Dear Sheila, I found the Lightbrown/Spada article provocative for the reason whish you sighted and many others!*
Expansion of Argument or Claim	A previous argument or claim is expanded through further supporting evidence, a synthesis of evidence previously put forward or additional reasoning e.g. *I must agree, learning the "standard" dialect was more reassuring to me as well when studying Spanish. In my experience with Spanish, it is the form that will see you through most situations.*
Challenge (R) (Concess.)	A questioning or criticism of a previous argument or claim e.g. *Simon's example only refers to criteria number one: oral. Reading, writing and listening skills also come into it.*
Counter Argument • Counter Claim • Evidence	An alternative argument is put forward e.g. **Barbara A. writes:** *<I've heard from a reliable source a German Teacher who teaches German and Latin that any variation from standard German comes across as underprivileged. _ Barbara* *I think the two varieties (regional and standard) have different purposes. The latter is for interregional communciation and the former for affective expression -the notion of "Heimat" - home being so strong in Germany. This is a bit like Crystal's call for three varieties of English come to think of it, though I wouldn't say that the standard is a simpler "lingua franca" while the regional is richer. (Not for me at least ....!!)*
Counter claim	A claim which takes an alternative position to a previous claim or argument is put forward e.g. **Karen D. writes:** *Mark Patowski has perhaps a point with age being an important factor in second language acquisition.* *I don't think it's the age itself, Karen. I think it's the baggage that comes with age - being stuck in your ways of thinking, or wanting a situation to be something else (thinking you can manipukate it perhaps) ..?*
Personal Assertion (R)	A proposition which is based on personal experience and therefore not generalisable and not open to debate (when responding, it is put forward in response to a previous message such as an argument prompt or personal assertion).
Reasoned Expansion of Observation	A previous observation is expanded through reasoning (words in bold) and (optionally) a related event is recounted. *e.g. I agree with what Margaret says about the wrong language popping out. I had a similar experience when I first learnt Romanian... I think it has **a lot to do with** how fluent you are. I now rarely muddle French and Romanian **as** I speak them well, but tend to attempt to speak them instead of German when I want to speak that, **as I am not***

	so familiar with it.
Definition/ Clarification (R)	A position is clarified or terms defined e.g. (in relation to language proficiency) *A level of communication that allows a person to communicate effectively, using oral, aural, writing, and reading skills, with speakers (native and non) of the target language. Effective communication could be defined as a level of communication that provides comprehension for all parties involved.*

Table 3 A comparison of the occurrence of initiation stages

Initiation Stages	Conference A	Conference B
Argument	6	7
Argument prompt	0	8
Claim	3	8
Challenge	0	2
Thesis	1	0
Personal Assertion	5	12
Personal Assertion prompt	0	2
Reasoned Observation	17	9
Request for Clarification/Definition	1	5
Total	**33**	**53**

Table 4 A comparison of the occurrence of response stages

Response Stages	Conference A	Conference B
Argument	0	12
Argument prompt	1	24
Claim	0	**7 in total**
to Personal Assertion		2
to Argument Prompt		5
Qualification of Argument or Claim	0	3
Re-inforcement of Argument or Claim	7	4
Expansion of Argument or Claim	21	5
Challenge	1	4
Re-inforcement of Challenge	0	2
Counter Argument	3	4
Counter claim	0	2
Personal Assertion (R)	0	**6 in total**
to Argument Prompt		5
to Personal Assertion		1
Reasoned Expansion of Observation	9	5
Definition/Clarification	0	4
Total	**42**	**82**

Table 5 Lecturer participation in argumentation

Initiation and Response Stages	Lecturer A No. of *stages*	Lecturer B No. of *stages*
Argument	0	0
Argument prompt	1	28 (out of 32)
Claim	0	0
Reasoned Observation	0	1
Request for Clarification/Definition	0	3
Qualification of Argument or Claim	0	0
Re-inforcement of Argument or Claim	0	0
Expansion of Argument or Claim	2	2
Challenge	0	0
Re-inforcement of Challenge	0	0
Counter Argument	0	1
Counter claim	0	0
Personal Assertion	0	0
Re-inforcement of Personal Assertion	0	0
Reasoned Expansion of Observation	0	0
Definition/Clarification	0	0