Knowing What we Mean, Meaning What we Say: The Humpty Dumpty Maxim of Online Interaction²⁰

Julian Cook and Neil Jacobs

University of Bristol jules.cook@bristol.ac.uk, neil.jacobs@bristol.ac.uk

ABSTRACT

This paper examines 'discussion' in a case study involving online learning, in which both tutor and students assessed the discussion board as having failed. An explanation for this is sought via analyses that draw from Fairclough's critical discourse analysis and, in particular, the ideas of genre and discourse. Two sets of discourses are identified and linked with specific interaction genres. Data from the discussion board and an interview with the tutor are then shown to exhibit both confusion and tension between these discourses and genres. The paper suggests that effective online interaction requires that we ensure that expectations are both clear and appropriate to the learning model being pursued.

Keywords

Discussion, critical discourse analysis, genre, discourse, discussion board, VLE

INTRODUCTION

If we want students to engage in online learning we need to communicate clear expectations (Cook & Timmis 2002). We need to do what we say we are doing, and to do that we need to know what we mean when we say it. This paper uses discourse analysis of a single case study of online learning to problematise the oft-used term 'discussion' and its status as a genre within online learning and teaching. The analysis covers both interview data and the record from the course discussion board.

ANALYTIC APPROACH

Fairclough (2003) distinguishes three aspects of meaning: action, representation and identification. That is, texts do things, describe things and are ways in which people construct and maintain identities. The action orientation of a text is described as its genre, the representation orientation as its discourse, and the identification orientation as its style. These orientations are analytic categories; they are effects of the text rather than necessarily intentions of the speaker or author. Any particular text is likely to be interwoven with related discourses, genres and styles.

Using Fairclough's analytic framework, our objective is to unpick what is carried by the term 'discussion'. We have focused in particular on a study of discourse and genre (acknowledging that certain styles are also certainly enmeshed in our data, and that these would also be analysable). How, then, are discourses identifiable? Focusing on the representational aspects of a text inevitably includes looking at lexical choice – why some are words used rather than others. Discourses are also realised through such devices as metaphor, synonymy and so on. At deeper levels, discourses are realised through facets such as presuppositions about the ways in which the world works, through the relations between social actors, or between the text and those actors. Genres, being the action orientation of texts, are more easily identified by reference to such matters as turn-taking, grammatical construction, layout and so on – the arrangement of the text in time and space. Genres (Fairclough 1992, p215) define the rules and roles within which interaction will take place, as well as appropriate style, length and register. In a learning and teaching context, both tutors and students approach their work during taught modules according to sets of expectations about the way that work will be carried out.

²⁰ "When I use a word," Humpty Dumpty said, in a rather scornful tone, "it means just what I choose it to mean - neither more nor less."

[&]quot;The question is," said Alice, "whether you can make words mean so many different things."

[&]quot;The question is," said Humpty Dumpty, "which is to be master – that's all." Alice Through the Looking Glass.

In order to do this effectively they need to know which genre is likely to apply in a given situation and to be familiar with that genre. An example of a genre familiar within the learning and teaching domain might be the recitation sequence ('Question-Response-Evaluation'; Bellack 1966), in which such issues as the appropriate forms of address are relatively stable. This example shows that genre can be (although is not necessarily) linked to specific models of learning and teaching (in this case a teacher-centred model), which themselves are elements of discourses (in this case a traditional educational discourse that might be termed 'knowledge transmission'). We focus on the relevant discourses that are apparent in an interview with a tutor taking a particular module, and the associated mix of genres that are realised in the discussion board interaction that formed a part of that module. Our argument is that the genre 'discussion' is ambiguous, being only partially related to a learner-centred discourse, so that calls for 'discussion' are not effective in the ways anticipated by the tutor.

THE CASE STUDY

The data are a set of transcripts that all relate to a first-year undergraduate module in macroeconomics. A majority of the 97 students, and the tutor, did not have English as a first language. This module was chosen because a complete set of data were available as a result of the SOLE (2002) research project. In this paper we use excerpts from an interview with the tutor, plus a record of the discussion board interaction over the course of the module. There was an expectation on this module that there would be a significant amount of online communication using the 'module discussion board'. However, as we describe below, this was not the case, and it is this phenomenon that had led us to a critical examination of the term 'discussion'. We should point out that the term 'critical' is applied to the data only; our intention towards the participants has not been to criticise but to describe and understand.

ANALYSIS OF THE GENRE 'DISCUSSION'

'Discussion' is a key term. It is used by tutors and students, on 'discussion' boards, as the title of the 'discussion board', by the VLE manufacturers, by professionals, researchers and academics working within the constructivist approach and, finally, it is used in ordinary casual conversation where we all know what it means. So, what does it mean? The OED gives two definitions: **1**. a conversation, especially on specific subjects; a debate - and **2**. an examination by argument, written or spoken. Let us consider each of these in turn.

'Discussion': definition 1

In respect of the first OED definition, empirical work on natural conversation (Psathas 1995; Sacks, Schegloff and Jefferson 1974) has shown it to be structured according to a well-defined set of normative rules that imply a degree of mutuality and collaboration. Fairclough (2003: 78) notes that "informal conversation can be characterized in terms of an unconstrained alternation of speaker turns. Participants are equal in their right to take turns, in the sort of turns they can take (e.g. being able to ask questions as well as answer them), in their right to expect to be able to speak without interruption, and so forth." Of course, as Fairclough acknowledges, while conversation might often approximate to this ideal, deep societal structures (such as gender and race) affect these rights in practice. As an analytic construct, though, the model of conversation as both mutual and collaborative seems both persuasive and empirically relatively well-grounded. The point may be illustrated if we contrast conversation with an interaction pattern not typified by mutuality (asymmetric interaction), for example the 'Question-Response-Evaluation' sequence noted above, where the student would typically expect to respond to the teacher by offering an answer, and teacher would typically expect to respond to what the student says by evaluating it. We would argue that the use of the word 'discussion' to describe what happens on the discussion board may set up an expectation that what will happen is a 'conversation' (in the sense described above). However, as we will see, our examination of the 'discussion board' in this study shows that in this example this was not the case.

'Discussion': definition 2

The second OED definition of discussion, an examination by argument, would suggest that the relevant rules are of elaboration rather than interaction and turn-taking. That is, contributions are expected to be more fully-formed than turns in a conversation. You are now reading such a 'discussion'. People coming to a discussion board with expectations based on this definition would anticipate having to read and write extended expositions.

Some studies (for example, Jenkins et al 2001) have shown that students expecting more interactional, conversational uses of a discussion board are disappointed when contributions are of an extended, 'exam' type.

ANALYSIS OF DISCOURSES

Following Fairclough's concept of interdiscursivity, our analysis identified four discourses which are not so much blended, but are in tension with each other. Another way of understanding this is in terms of Bernstein's 'recontextualising fields' (Bernstein 1996), which describe how external discourses (in the form of structures, expectations, constraints, etc) are manifested in practice. These can be understood as pulling actors in potentially different directions, or as competing for influence within a particular activity or episode of practice. The four discourses we identified are:

- a) The pedagogic discourse of learner-centred education, as described, for example, by Goodyear (2001);
- b) The 'official' discourse of elearning (Robertson forthcoming), see, for example, CurriculumOnline 2003;
- c) The pedagogic discourse of knowledge transmission, which describes knowledge as something to be conveyed from knower to learner, and may be congruent with subjects that emphasise factual knowledge as a fixed system (for example, some branches of economics, natural science, engineering), rather than as a matter of construction, co-construction or interpretation (for example, some branches of philosophy, sociology, literary studies);
- d) The institutional discourse of summative assessment, standards, and accountability, by which both tutors and students are judged.

We argue that the four discourses often work in pairs, where each discourse supports the purpose of the other:

Elearning and learner-centred education: Much of the literature on elearning contains claims that the implementation of elearning will facilitate or catalyse a move towards more learner-centred educational approaches, including more flexible and collaborative learning. See for example the transitions anticipated by Goodyear (2001). This combination results in expectations such as "we are using a discussion board therefore students should be discussing", and "we are putting materials online therefore students will be more independent".

Knowledge transmission and institutional accountability: This pairing is based on the notion that institutions, perhaps via the accreditation mechanisms of professional associations, require both tutors to teach and students to demonstrate that they have learned predefined sets of knowledge. This puts pressure on the tutor to try and determine what is learned by presenting a controlled set of pre-digested information to students. This contrasts with learner-centred approaches where the learner has more freedom to arrive at his/her own understanding of the subject, which while accurate, may not 'cover' the whole subject as defined by the institution (see, for example, Skrla et al 2001).

We argue here that the genres that are in tension in the discussion board data can map to the discourses in tension in the interviews. The discourse of learner-centredness is enacted through the genre of discussion as understood in definition 1 above, while the discourse of knowledge transmission/teacher-centredness is enacted through the genre of the recitation sequence (also see above). In other words, if participants in online discussion are ambivalent or unclear in what they say about online discussion, then what they do when taking part in it will reflect that.

ANALYSIS

The first section of our analysis presents the discussion board data, focusing on the combinations of genres apparent, and their effects on each other. The second is an analysis of the interview data, focusing on the representational work being undertaken in those interactions; the discourses apparent in them. This aims to identify the ways in which the interviewe described his approaches to teaching and learning, and to the discussion board in particular.

Data and analysis 1 – The discussion boards

As noted above, there was far less activity on the discussion board than had been anticipated. Of the 97 students taking the module, only seven posted anything. Of the 45 messages posted, 28 were original (that is,

not replies to a previous message), most of which were posted by the tutor, and 17 were replies, again most of which were posted by the tutor. Only 12 messages related to the substantive topic of the module, economics. There were no exchanges of more than three messages. If these figures reflect how little 'discussion' (definition 1) took place, then a qualitative analysis may shed light on why this was the case. Why should this need an explanation? In one of earliest messages on the discussion board, the tutor made what appeared on the surface to be an explicit call for discussion, which was in keeping with some of his statements in the interview (see below). So, why did 'discussion' not happen?

Two exchanges later in the module illustrate the difficulties clearly (see below; read vertically from top to bottom). Neither of these exchanges conforms to either definition of 'discussion' as outlined above. Exchange 1 is clearly a recitation sequence, 'Tutor question / Student response / Tutor evaluation'. Exchange 2 is initiated by a student but, given previous calls by the tutor for contributions, this might be seen as a 'second part' in a recitation sequence, and the tutor certainly responds in Message 114 as if it was. Public recitation sequences are not known for encouraging participation, a fact acknowledged by the tutor both in the interviews (see below) and in Message 114, where he understands non-participation in terms of a fear of appearing foolish. On the face of it, then, the tutor's calls for learner-centred discussion are followed by teacher-centred recitation, and this is one explanation for the lack of participation. But things are not so simple.

An examination of how the participants use personal pronouns gives us clues as to how they are positioning themselves and others, and whether this is congruent with either the mutual, collaborative approach of 'discussion', or the teacher-centred approach of knowledge transmission and recitation. Message 95 starts by stating a fact and calling on "you" (the student(s)) to offer an explanation. It then asks why "we" should be concerned, and it is worth asking who is referenced / what is achieved by this "we"? As people called on to offer an explanation, the students are included in the "we" who may be concerned, so that there is a category that includes at least the tutor and students. This positioning is congruent with a learner-centred discourse, where tutor and students are both learners, and the tutor is also a facilitator (Goodyear 2001 notes that evidence of a move to learner-centred practice is where there is a shift "from total control of the teaching environment [by the tutor] to sharing with the student as [a] fellow learner"). However, the following sentences, "Can anybody explain" and "I welcome any contribution" suggest a different positioning, where the tutor invites explanations, welcomes them, and evaluates them. There is some confusion, then, between genres. Given that genre dictates which normative rules are relevant for an interaction, confusion on this score will discourage participation by increasing the perceived risk that a potential contributor might inadvertantly 'break' the rule.

Is Message 112 part of a recitation sequence? On the one hand, yes, and it is treated as such by the tutor. On the other hand, consider the phrase "Krugman is generally on the left, by the way." This suggests that the student has a long-term familiarity with author in question, and knows their political bias. We suggest that this does a number of things. First, it acts as a category entitlement (Potter 1996). That is, the student is working himself up as a member of a category of people who are knowledgable and therefore qualified to offer advice. If the student is positioning himself as a knowledge transmitter (tutor's role), then this is a challenge to the recitation sequence, and suggests that Message 112 should be read as a 'first part' (not the 'second part' of a recitation sequence), perhaps the 'first part' of a discussion? However, and second, the style of Message 112, together with the category entitlement, suggest a genre of 'advice from an expert' or 'tip', rather than 'discussion'. There are, then, three potentially relevant genres here (discussion, recitation and tip), displaying significant genre confusion.

Exchange 1	Exchange 2
Message no. 95 Posted by [TUTOR] on Thursday, February 6, 2003 8:11pm Subject Interest rate cut Today the Bank of England (BoE) cut	Message no. 112 Posted by [STUDENT2] on Tuesday, March 11, 2003 9:39am Subject Relevant New York Times column http://www.nytimes.com/2003/03/11/opinio
interest rates by 0.25%. The present interest rate is 3.75%. Why do you think the Bank of England has done this? Why should we be concerned about this decision? Can anybody explain? I welcome any contribution. [tutor's name]	n/11KRUG.html?ex=1048374816&ei=1&en=3580 91fdf26252c6 Access requires registration, but it is free.
	Interesting view into interaction of money market, tax cuts, government spending, war, and how textbook authors are real people. Krugman is generally on the left, by the way.

Message no. 105[Branch from no. 95]	Message no. 114[Branch from no. 112]
Posted by [STUDENT1] on Friday, February 28, 2003 11:13pm	Posted by [TUTOR] on Thursday, March 13, 2003 10:07am
Subject Re: Interest rate cut	Subject Re: Relevant New York Times
The bank of england may have cut	column
interest rates to increase consumer spending as well as firms taking	[Student 2's name],
advantage to borrow money to invest.	this is an excellent link. I do not think that the political views of
	Krugman are an important issue here.
Message no. 108[Branch from no. 105]	As an economist he raises specific
Posted by [TUTOR] on Tuesday, March 4, 2003 11:08pm	problems related to the economic policy of the present American administration. Now, I have some questions for you all.
Subject Re: Interest rate cut	In order to fully understand this
This is a positive contribution and the	article we need to have some points
explanation makes sense. Now, there are two questions we need to address:	clear in our mind. Try to give an answer to the following questions:
a) why did the Central Bank want	a) what is the main issue raised in the
consumers to spend more or firms to	article?
invest more? b) some economists disagreed with decision to cut the	b) What are the two theories that link
interest rate. Why do you think that	budget deficits to the interest rate?
this policy change was so controversial?	c) Do you think that a similar problem will affect the UK?
Contributions are welcome from	Any contribution is welcome. Please add
everybody! Please post your own contribution here! Hopefully, these	your own opinion/analysis. Do not worry about writing silly things. We are here
discussions will help you get a better	to learn and we can learn only by
understanding of macroeconomics.	sharing information and by making
[tutor's name]	mistakes. Hope you will engage in this.
	[tutor]

However, there is not merely confusion between genres, as the strikingly similar Messages 108 and 114 show. The tutor initially posits an inclusive "we" ("there are two questions we need to address" and "to fully understand this article we need to have some points clear in our mind"), suggesting a learner-centred approach, and then both directs the discussion (rather than participating in it), and shifts to ask "you" a set of questions. Both of these moves tend to position the tutor back at the centre of things. The calls for contributions that finish both messages are similar; consider Message 114. The tutor notes that "We are here to learn and we can learn only by sharing information and by making mistakes". While this may be a part of the point of learner-centred education, it is difficult for the tutor to use it as a plea for participation. In its delivered form, using "we", it begs the questions 'who is "we"?', and 'who will decide when something is a mistake?'. The answers to these questions are likely to contradict each other (the tutor will decide when something is a mistake, and therefore is not a part of the "we" who is learning), so that the sentence is revealed to be disingenuous. On the other hand, if the tutor had used "you" instead of "we", this would have described a wholly tutor-led approach. Caught between the two, the genres undermine each other leaving students in a very difficult position from which to make a contribution. This is not just confusion between genres, but what we might call 'genre tension' (Lingard et al. 2003), so that the interplay of two genres in a message serves to undermine the surface meanings of the message, or rather, has unintended effects in the interaction that detract from the surface or textual meanings. It is a very particular form of what Fairclough (2003) calls interdiscursivity. In simple terms, the tutor is revealed to not mean what he says when he calls for discussion or, better, that these explicit calls for discussion work against the interactional norms that are simultaneously demonstrated to be relevant.

Data and analysis 2 - The Interview

This section presents an analysis of an extract from an interview with the tutor that took place before the course was run. Its focus is what he said about elearning in general and the role of discussion boards in particular. The confusion and tension between genres enacted on the discussion board is here mirrored in the way online discussion is talked about. We consider this with reference to two sets of discourses that occur within the text (see above), and how the speakers position themselves in relation to them. The following is an extract from the interview:

INTERVIEWER	OK, thank you. How do you expect students to work together?	1
TUTOR	Work together, you mean as a group?	2
INTERVIEWER	Or are you expecting students to work together using WebCT?	3
TUTOR	No, not- not really. In the sense that the module does not require students to do for example any kind of group work. There's no work- group work assignment or assessment.	4 5
INTERVIEWER	So when you talked about posting your online discussion are you expecting students to be talking to each other about these issues, or just talking to you about them?	6 7
TUTOR	No, I mean the idea is for them to talk to each other, and maybe talk to me, but to talk to each other, mainly. The idea of hosting the discussion topics is also one of creating a kind of community if possible so that in class, for example it's difficult for some students to intervene because they fear that other people might say things about what they say, or they might laugh, or they might say stupid things. Maybe the screen, or the hiding screen that WebCT provides can give them more incentives to come forward and to express their own opinion. The only other way in which I can expect them to do some work together- to work together, is when the coursework comes Again the coursework will require them to collect this data, draw these graphs, and comment on graphs, and one thing I will tell them is to look, work together, and if you have any problem when you're doing it, providing that in the end one of you works it out, and so on, to do things. As long as you don't plagiarise somebody else's work But I would like them if possible here to work together in these groups, primarily sitting around the table showing graphs and saying, what does this mean, what does this graph show? And so on. But otherwise, no, I don't expect them to work together.	8 9 10 11 12 13 14 15 16 17 18 19 20 21 22

The interviewer introduces the discourse of learner-centred learning with the presupposition that students will "work together" (line 1), implying a collaborative style of interaction. The tutor's response reveals an immediate tension; "No, not- not really" is marked by delay and hesitation (line 4), thus clearly indicating a dispreferred response to the interviewer's question (ie it is not the response he believes the interviewer expects). It therefore requires an explanation: "The module does not require...." (line 4) conceals his agency in the decision not to require group work behind the implied authority of the institution (discourse of summative assessment, standards, and accountability), which is represented by the impersonal "module", the very emphatic wording of "does not require" and the formality of "require". Compare this with some of his more tentative statements about students working together (see below). He seems to resolve the tension between discourses, by suggesting that "it's not because I disagree with group work but because it's not required".

The "just" in the following question (line 7) would suggest a presupposition that students talking to each other is better (again the discourse of learner-centred, collaborative learning). In the tutor's reply, he begins to adopt the discourse of learner-centredness himself, even using a learner-centred 'buzzword' (community). However his relation to this seems to be very tentative - in his use of "if possible" and "the idea" both implying something experimental rather than definite.

The tutor's comments about the discussion board (lines 12-14) imply a belief that students' expressing their own opinion is desirable (discourse of learner-centredness) and that the nature of the discussion board will encourage this (discourse of elearning). What the tutor seems to say here is not that the discussion board is a place where students are less likely than in a face-to-face class to be negatively evaluated, but that the cost of such an evaluation would be less because of the relative anonymity that it allows. It suggests that the familiar genres of learning and teaching (recitation sequence) will still apply, but that the nature of the discussion board will ameliorate one of their inherent problems (so actually discourse of elearning in the service of discourse of knowledge transmission). Who would be doing the evaluation is not made explicit ("other people might say things...") but what seems to be implied is a fear of being evaluated by other students (discourse of learner-centredness). However this may be disingenuous, as we saw in the discussion board that it was the tutor who did the evaluation. Again we notice a tension between the discourses in this text, leading to an obscuring of what the tutor actually intends.

Turning to the tutor's metaphor of a screen (line 12), it is interesting to try and visualise this. On which side of the screen is the tutor, on which side the student who has come forward to express his opinion, and on which side the rest of the students? And from whom is the student hiding, from other students or from him (again raising the question of who is doing the evaluating)? We cannot know how the tutor visualises this, but to this author the metaphor of coming forward (line 13) evokes the structures and power structures (and thus belongs

to the discourse) of transmission based educational interactions. The student "*comes*" (approaching the tutor), "*forward*" towards the front (where the tutor is). Thus the image is of a classroom with the tutor at the front (perhaps on a stage), and the students in rows at the back – in order to express his opinion the student has to approach the tutor's position. It is also interesting to note how the student in Message 112 (see above) does exactly that – then look what happens.

The next part of the tutor's response (lines 14-19) indicates further tension. He will tell the students to "work together". The simulated address to students positions him as close to them, aware of their needs (discourse of learner-centredness). The students are the ones doing things and he is facilitating (discourse of learner-centredness). However the discourse of accountability is still present "the coursework will require them". It is presented as a given that he is an agent of the institution (also requiring him to enforce rules about plagiarism – line 19).

The discoursal tensions described here reflect the tutor's attempt to reconcile the often incompatible demands of his position, where he needs to act as a professional representing his employers but also believes in learners being actively involved in their education and wants to help them to achieve this. He may also want to be seen by the interviewer as someone who subscribes to the values of learner-centredness. But this is undermined, not just by the demands of the institution, but also by his own implicit models of learning interactions.

CONCLUDING REMARKS

There were no clear genres on the discussion board, certainly not 'discussion' (as a mutual and interactive interaction). The persistent recitation sequence (question-response-evaluation) was apparent on the surface, but was undermined by explicit calls for discussion, with its expectation of mutuality rather than tutor evaluation. Turning to the discourses apparent in the interview, again there was confusion and tension between tutor-centred and learner-centred approaches, each serving to undermine the effects of the other in the interview. We have argued (with Fairclough (2003) that genres and discourses are closely related, in this case that 'discussion' is related to a learner-centred discourse, often associated with e-learning, whereas the recitation sequence is related to a tutor-centred discourse, often associated with knowledge transmission and institutional accountability. It seems that both the module and the research interview were operating in a very uncomfortable place, in the discursive crossfire between these two approaches, making it difficult for anyone to say what they mean and mean what they say.

We conclude that we have identified two important factors in engaging students in online learning. These are clarity and appropriacy of both discourse and genre:

- It should be clear and explicit within which genre participants are working. Without this, they will expect different things and interact accordingly, leading to confusing and even contradictory styles of interaction, which act to deter would-be contributors from participating. When we say 'discussion', we need to mean discussion, and not something else.
- The genre specified should be appropriate to the learning model and context. Where learners and teachers participate together in online learning activities, 'discussion' may not be the most appropriate genre to aim for in 'discussion boards', as it implies the students' ability to interact about the subject on an equal footing with the tutor. What may be more realistic is a 'cognitive apprenticeship' model where students learn to use concepts and arguments from the subject through a series of scaffolded activities (Salmon 2000).

REFERENCES

Bellack, A. (1966) The Language of the Classroom, Teachers College Press, New York.

- Bernstein, B. (1996) Pedagogy, Symbolic Control and Identity: Theory, research, critique. London: Taylor and Frances.
- Cook, J.H.A. & Timmis, S.E. (2002) Towards a theory of student motivation in virtual learning, ALT-C, p83-92, Association of Learning Technology, 2002
- CurriculumOnline: http://www.curriculumonline.gov.uk/
- Fairclough, N. (1992) Discourse and text: linguistic and intertextual analysis within discourse analysis. Discourse and Society, 3, 193-217
- Fairclough, N. (2003) Analysing discourse: textual analysis for social research. London: Routledge.

- Goodyear, P. (2001) Effective networked learning in higher education: notes and guidelines, available at http://csalt.lancs.ac.uk/jisc/advice.htm
- Jenkins, J., Cook, J., Edwards, J., Draycott, T., Cahill, D. (2001) Medical Education with the internet: a pilot training programme in reproductive medicine. British Journal of Obstetrics and Gynaecology 2001; 108: 1-3
- Lingard, L., Schryer, C., Garwood, K. and Spafford, M. (2003) 'Talking the talk': school and workplace genre tension in clerkship case presentations. Medical Education 37 (7), 612.
- Potter, J. (1996) Representing reality. London: Sage.
- Robertson, S. (forthcoming) ICT in the classroom: the pedagogical challenge of respatialisation and reregulation. In: M. Olssen (ed) 'Culture and Learning: Access and opportunity in the curriculum. Wesport, Conneticut: The Greenwood Press.
- Sacks, H., Schegloff, E. and Jefferson, G. (1974) A simplest systematics for the organization of turn-taking for conversation. Language, 50(4), 696-735.
- Salmon, G. (2000) E-moderating: the key to teaching and learning online. London: Kogan Page.
- Skrla, L., Scheurich, J. J., Johnson, Jr., J. F., and Koschoreck, J. W. (2001). Accountability for equity: Can state policy leverage social justice? International Journal of Leadership in Education, 4, 237-260.
- SOLE (2003) Students' Online Learning Experiences. Website available at: http://sole.ilrt.org/