

Investigating the multiple worlds of teaching through multiloguing

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ABSTRACT

This paper considers the use of multiloguing or an online discussion as a means of investigating teachers' thought processes. The characteristics of the discussion are outlined and the role of the researcher, the development of his/her identity and the skills required to lead a discussion are presented. The benefits of multiloguing are considered in relation to the freedom from spatio-temporal limitations. Challenges related to the use of the technique are drawn from a study in which multiloguing is used to investigate teachers' beliefs. The decentered nature of the online discussion allows the researcher to play an unobtrusive role but presents difficulties in terms of ensuring participants' involvement. Technical and logistical factors may present challenges but can be overcome or minimised.

Keywords

Multiloguing, Online discussion, Research techniques

Introduction

In his discussion of paradigms and research programs, Shulman (1986) highlights the complex nature of the world of teaching:

I begin with the assumption that there is no real world of the classroom, of learning and of teaching. There are many such worlds, perhaps nested within one another, perhaps occupying parallel universes which frequently, albeit unpredictably, intrude on one another. Each of these worlds is occupied by the same people, but in different roles and striving for different purposes simultaneously. (p.7)

As researchers, if we subscribe to Schulman's way of thinking, then we need to determine methods with which to investigate these multiple worlds. Such methods will consider of primary importance the experiences of individuals and the meanings and interpretations they attach to them. The methods will provide an opportunity to gain insight into these experiences in order to understand the meanings of events and not to influence them. Such inquiry will be interpretative and reflective. It will not attempt to explain how things work, nor will it attempt to predict how they might work. Instead, it will aim to understand the meanings evolved by individuals in a particular context. It will attempt to make sense, to understand, to make more explicit, the multiple worlds of teaching.

Like Schulman, Guba and Lincoln (1988) posit that there exist multiple realities which are, in the main, constructions existing in the minds of people. The role of the researcher is to observe these multiple realities, to articulate, interpret and reconstruct them (McMillan & Schumacher, 1997). The focus of the investigator's attention is on the multiple and subjective realities or worlds of teaching. The methodological approach used to investigate these realities or worlds should be based ideally on innovative and non-obtrusive techniques in order to provide an environment in which teachers will be encouraged to reflect.

One technique which can allow for the creation of an environment conducive to providing some insight into the multiple realities and worlds of teaching is that of the online discussion or multiloguing. Multiloguing is a term used in this paper to describe a decentered, text-based, asynchronous electronic exchange with multiple senders and receivers. This paper outlines some of the characteristics of multiloguing as a data collection technique suited to creating a context in which teachers can reflect, share experiences and provide insight into their worlds. The paper begins with an overview of some of the characteristics of the discussion in general. It then considers the role of the leader of the discussion and the role of the researcher as leader of the discussion. Benefits related to multiloguing are presented in comparison to the face-to-face discussion. In the final section, challenges to multiloguing are contextualized in relation to a study of teachers' beliefs.

Characteristics of the discussion

Of all types of sustained, direct, oral communication, none is more common or important to our way of life than the discussion (Brilhart, 1978). The following definitions of a discussion indicate the many interpretations that can be given to the term. These definitions also highlight many commonalities and include:

- a process of *shared* talking and listening by two or more people; (Brilhart, 1978, p.3)
- a small group of people talking with each other face to face in order to achieve some interdependent goal, such as increased understanding, co-ordination of efforts, or a solution to a shared problem; (Brilhart, 1978, p.5)
- a form of group dialectic; (Brilhart, 1978, p.7)
- the purposeful, systematic, primarily oral exchange of ideas, facts, and opinions by a group of persons who share in the group's leadership; (Potter & Anderson, 1976, p. 1)
- ...one or more meetings of a small group of people who thereby communicate, face to face, in order to fulfil a common purpose and achieve a group goal; (Borman, 1975, p.53)
- an effective technique for intelligent and productive self-expression. (Bergevin & Morris, 1965)

Hyman (1980) highlights seven characteristics of the discussion the first of which is that of the discussion as a social activity whereby several people react to each other. A minimum group of five individuals is necessary to provide the opportunity to talk and yet allow some shifting of roles within the group. Secondly, a discussion is also a co-operative endeavour without winners or losers unlike the argument and debate which thrive on competition. Thirdly, unlike the free conversation among friends, the discussion can be distinguished by reason and purpose and a focus on an agreed-upon topic. Participants are required to think reflectively and to weigh arguments. The characteristic of being systematic implies that there will be some progression in the discussion. The fifth characteristic of the discussion is that it is creative. It is through the participants asking, responding and reacting to questions, that remarks are shaped and that the discussion is created. Active, attentive listening as well as active, responsive speaking constitutes a sixth characteristic of the discussion - that of participation. The speakers and listeners constitute the integral participants.

Leadership of the discussion

A discussion requires leadership in order to keep it focussed, rational, purposeful, creative, systematic and participatory. The leadership of the discussion may take at least three different forms: that of the leader-centered group, the leader-guided group or the group-centered group (Hyman, 1980). In the first form, it is the leader who provides the motivation and direction and makes decisions for the group. The leader functions like the hub of the group without whom the group might cease to function. It is the leader who chooses the topic, sets the tone and focuses the discussion. In the leader-guided group, the leader functions as a facilitator who guides the discussion, contributes facts and opinions, clarifies ideas and raises questions. The third type is the group-centered group in which case there is no official leader. Instead, all members function as leader so that the discussion is not focussed by one person rather each participant is responsible for providing the focus.

Specific discussion skills are required in order to lead the discussion. Hyman lists six skills which he identifies as being necessary to ensure an effective discussion. The first of these skills, that of contributing, involves supplying requests for information, providing information not supplied by the participants themselves, offering opinions, and suggesting new ways to view a point. Crystallising is the second important skill for the discussion leader and essentially involves stating concisely, summarising or interpreting the remarks of the participants in order to get at both the explicit and implicit, overall meanings. The leader may clarify statements made, offer alternative ways of perceiving meaning of remarks or offer a reflection on remarks. The third skill is that of focussing or putting the discussion on its intended course and ensuring that progress is made in the discussion. Focussing may also involve linking remarks with previous remarks, and setting limits on what can and cannot be discussed.

In addition to the three leadership skills there is the skill of introducing and closing the discussion. Introducing the discussion involves getting it off the ground by presenting the topic while closing the discussion involves ensuring that the discussants have a sense of satisfaction about their participation. The introduction also provides an important opportunity to deal with procedural issues related to the discussion. Closing the discussion involves more than ending it. A summary or recapitulation of the important points made, along with suggestions for future discussions, constitute important elements of the closing process. Participants can also be asked by the leader to perform the role of summarising the highlights of the discussion. The fifth discussion skill is that of questioning or probing which serves to stimulate greater participation by the discussants and allows

opportunities to solicit further opinions, explanations or generalisations or to explore relationships between ideas and remarks. Mixing the skill of questioning with other skills allows the leader to avoid dominating the discussion by interrogating. The final, but not the least important skill for the leader, is that of supporting. Praise, humorous remarks, and facilitating participation by shy or inactive members or even reducing any tension in the discussion constitute different ways of supporting.

The leader as researcher

A discussion can provide teachers with the opportunity to reflect on their practices, the curriculum, and their experiences. Through a collaborative sharing of ideas and experiences, teachers can respond and react to each other, weigh arguments, ask questions, compare practices and ideas, express concerns and clarify issues. The researcher has an important role to play in facilitating and guiding teachers in this process of reflection and sharing. The researcher works to bring closer to the surface issues, knowledge, theories, ideas and feelings that might otherwise go unexplored, unquestioned and unnoticed. Thus, as leader of the group discussion, the researcher facilitates making the tacit more explicit.

The researcher's role in the discussion can also be characterised as that of the participant-observer. Brillhart (1978) describes the role of the participant observer in discussion groups:

The participant-observer is a person who is a regular member of the group, engaging actively in its deliberations, but who at the same time is observing, evaluating, and adapting to its processes and procedures. In terms of role, the participant-observer directs part of his attention to task functions and part to maintenance functions, trying always to be aware of what the group needs at the moment. (p.45)

In the role of participant-observer, the researcher does not actively engage in the deliberations except to provide questioning, probing, direction and focus. In this sense, as participant-observer, the researcher acts more as a leader-observer than a true participant. As leader and participant-observer, it is important to construct what Hammersley and Atkinson (1983) refer to as a working identity. This identity allows the researcher to exploit any relevant skills or knowledge that he/she possesses. In this way, the participants can perceive the participant-observer, not as an exploitive interloper, but as someone who has something to contribute. To maintain participants' interest and active involvement in a discussion, it may be necessary for the researcher to provide some sort of contribution. A collaborative and co-operative tone can thus be established in this discussion.

Multiloguing

Shank (1993) distinguishes between three types of conversation: the monologue where there is only one sender, and one or more multiple receivers who listen passively to the message of the sender; the dialogue whereby the sender and receiver take turns; the discussion whereby there is one person who starts as the sender, and multiple receivers. However, argues Shank, these models of monologue, dialogue, discussion, do not capture the dynamics of Internet communication. For this reason, he claims, a new linguistic model is needed - that of the multilogue:

In the multilogue, we have a number of players. We have the starter, or the initial sender, who starts the thread (a well-established Net term, by the way). Once a thread has been started though, it is no longer under sender control. This is because the mechanics of Net response do not require turn taking. From the oral side, it is as if everyone who is interested in talking can all jump in at once, but still their individual voices can be clearly heard. From the written side, it is as if someone had started writing a piece, but before he/she gets too far, people are there magically in print to add to, correct, challenge, or extend the piece. Therefore, what we have is a written quasi-discussion that has the potential to use the strengths of each form. Since the feel of Net communication is still oral, I think it is best to call this form of communication multiloguing, to retain the link with its oral heritage. (p. 3)

Multiloguing can take place in a web-based forum where participants post to an electronic bulletin board or it can take place using electronic mail. With either approach, the discussion operates asynchronously whereby messages are either emailed or posted on a system where, upon login, users are notified of the new postings or emails they have not yet accessed (Bush, 1996). Discussions are frozen on the hard drives of the participants and

the discussion can be entered into at an interval convenient to the participant (Logan, 1995). For the purposes of this paper, we are interested in the discussion which takes place using email.

Benefits of multiloguing

The term 'thread' describes the basic units of the online discussion and represents the way in which these units are clustered around topics of communication. The thread has significance for highlighting attention to the fact that communication in the multilogue is non-linear in the sense that there is no process of turn-taking. Multilogue participants "can all jump in at once," thus ignoring the normal protocol of turn-taking as would be required in a face-to-face discussion. The lack of turn-taking focuses our attention on the multilogue as a discussion which is self-organising and in which control is highly decentered. The decentered aspect does not lead to chaos, to disorganisation or to lack of focus in the online discussion because there always exists a written record of exchange. Individuals respond based, not on their turn or on any imposed order, but on their interest in the thread. In an instructional setting, online communication and discussion have been shown to reduce domination of the discussion by the teacher (Althaus, 1997; Olaniran, Savage & Sorenson, 1996) thus allowing for more control by the participants.

This transfer of control to the participants means that the researcher does not always choose the topics, the depth of treatment or the length of time that is spent on one issue. Nor does the researcher always control or influence the degree of participation of certain individuals, when they respond, how often they respond or whether or not they respond at all. What this means is that the researcher can more easily play an unobtrusive role, lurk and observe, and intervene when necessary or when called upon. Thus, the researcher is able to leave the site clean in that his/her influence on participants' responses can be minimised. The choice of topics, their depth of treatment, how the topics interrelate: all of these elements can be essentially determined by the participants. The discussion is self-organising and thus takes on a life of its own. As a result, unlike in an interview context where the researcher and participants are face to face, the comments expressed are less likely to represent those that the participant expects the researcher would want expressed.

The written exchange is an important feature of multiloguing because it facilitates freedom from physical and temporal constraints. Such freedom serves to contrast multiloguing from its face-to-face counterpart. In an online discussion, participants share a common corner of cyberspace rather than sit at a banquet table (Logan, 1995, p.276). This benefit of freedom from spatio-temporal limitations allows for more interaction and flexibility in communication among members and thus potentially more exchange of ideas, increased participation and variety of interchange (McComb, 1993). Some might argue that, compared with the face-to-face discussion, online discussions are limited by lack of physical interaction. On the other hand, Feenberg (1987) sees significant benefits to the freedom of spatial limitation:

...users often feel they gain a more immediate access to each other's thought processes, undistracted by the status signalling and social games that are played simultaneously with speech in face-to-face encounters...ordinary individuals possess the 'literary' capability necessary to project their personalities in written texts. The loss of the interlocutor's bodily presence does not signify impersonality, but freedom from undesirable social constraints. (p. 174)

Like Feenberg, Rheingold (1993) identifies lack of physical presence as a positive attribute of online communication and discussion. He emphasises as well the advantages of freedom from temporal limitations:

Some people -many people- don't do well in spontaneous spoken interaction, but turn out to have valuable contributions to make in a conversation in which they have time to think about what they say. These people who might constitute a significant proportion of the population, can find written communication more authentic than the face-to-face kind. (p. 23)

The fact that participants do not have to contribute spontaneously to the discussion has significant implications. The slower pace of exchange allows people to formulate more complex ideas (Morgan, 2000). It also provides time to reflect which is necessary for some participants in the discussion. The time for reflection and the distance of the written interaction can allow the slow thinker or shy person opportunity to interact just as much as the quicker or bolder person, who can, however, still interact at his or her own pace without having to wait for permission (McComb, 1993, p.8). This explains how the written versus the spoken form of the discussion can have an equalising effect (Ortega,1997). However, slow thinkers and shy people are not the only ones who

benefit from this equalising effect. Factors related to race, gender, status, handicap, accent or status do not have an influence on the online discussion (Warschauer, 1997) thus benefiting many potential participants.

Challenges of multiloguing

The researcher who opts to use multiloguing as a means to investigate the multiple worlds of teaching can exploit the many benefits that such a technique has to offer. Ironically, the same features that present benefits can also be at the origin of certain challenges. Some of these challenges relate to the lack of control, maintaining momentum and participation, and the logistics of managing the discussion on a day-to-day basis. In the context of a study of teachers' beliefs about teaching and learning French as a second or foreign language in online learning environments (Murphy, 2000), multiloguing constituted the primary means of collecting data. Two online discussion lists were used: one was for English speaking participants (CREDO) and the other for those who were French speaking CREO. This section considers some of the challenges of the technique of multiloguing which arose in the context of this study.

As Morgan (2000) has observed regarding online discussions, they are dynamic, organic, unpredictable and may go in a direction the moderator may not have planned for. In an online discussion, participants may easily decide not to participate or even simply unsubscribe without even notifying the researcher. In this sense, the lack of physical presence means that participants can more easily come and go without being noticed and may therefore exercise this right more quickly and frequently than they would in a face-to-face discussion. In the case of CREDO and CREO, this freedom of the participants presented challenges for the researcher. The combined number of participants in the study was theoretically 150 since this number represents the total number of individuals who subscribed initially to CREDO and CREO. Yet, there was no mechanism in the online discussion to ensure participation by all of these individuals. As a result, of the 140 initial subscribers, 76 did not send a message at any time, 24 participants sent a message only once, 30 sent from 2-5 messages, 8 participants sent from 6-2 messages and 2 participants sent from 11-20 messages. A large group ensures a certain degree of interaction and momentum but it may also encourage lurking instead of active participation. With a large online discussion, the role of the researcher/leader becomes instrumental in terms of ensuring participation by members. In the case of CREO and CREDO, it involved sending individual emails and questions to subscribers to encourage them to become involved, to solicit comments, to ascertain their particular interests or simply to attempt to find ways to motivate them to contribute. At times, these efforts were successful and resulted in greater participation, yet, at other times, as evidenced by the numbers reported above, these efforts did not achieve the desired goal of full participation by all subscribers.

In addition to issues related to participation, some of the other challenges presented by multiloguing related to logistical issues. In the CREO list, a problem arose as a result of messages sent by intruders and which did not relate to the intention of the list. Information about CREO as well as the e-mail address for subscribing were listed online at a site that provided a repertoire of French lists. The inclusion of the address of the list meant that it could be easily incorporated into the automated mail-out lists of companies or individuals wishing to advertise products or services online. As a result, during the course of the study, members of the CREO list began receiving e-mail messages inciting them to visit sites of an explicit sexual nature. Some participants were understandably distracted by the messages. A message to the service provider of the CREO list promptly resulted in the list being closed so that only those who were subscribed could post to it. The incursion of the unwelcomed message into CREO raised the issue of the lack of censorship and of boundaries on the Internet. Participants reacted to the incident and expressed concerns about the open nature of the Internet. What followed was a long discussion about the issue of the control and monitoring of students while they are working online.

Besides ensuring that there were no incursions such as the one described above, maintaining the discussion's momentum also became an important preoccupation. One way in which the technology can be used to maintain momentum is to ensure participants' prompt recognition and identification of messages. This technical feature may be an important one particularly in the case of members who are subscribed to a number of different lists who may receive many messages in the course of one day. In the case of the CREDO and CREO discussions, all messages received by members or participants carried an identifying 'flag' or tag so that messages could be easily and quickly distinguished from their other messages. The subject line of each message first included the name of the list (either CREDO or CREO). Another feature which the service provider included with the list was an automatic reply-to-all feature. Without this feature, participants' responses to a posting would go only to the individual who posted the message unless the responder expressly chose to reply to all. With this feature added, all responses automatically went to all members of the list unless the sender expressly chose to do otherwise.

In spite of some of the efficiencies of the technology, there were also some problems over which the researcher could exercise little or no control. Use of computers and the Internet in the collection of data is susceptible to the inconveniences of computer viruses. The *Happy99.exe* virus or worm is a program that, when opened by the user, launches several files that monitor to whom e-mails are sent, keeps them in a file and then sends them a second message with the file attached. One of the members of the CREDO list unknowingly infected other members of the list with this virus during the course of the study. Thus, when participants posted a message, a second message automatically followed since their computer was infected. Members were alerted and those who were infected were provided with information on removing *Happy99.exe*.

Conclusion

In addition to the above-mentioned challenges to use of multilogging for investigating the world of teaching, there will always be the challenge of focussing on what happens inside teachers' heads which, in general, may not lend itself easily to empirical investigation. Thought processes are unobservable in the same way that behaviour would be (Clark & Peterson, 1986), may be covert and teachers themselves may not recognise them. There will be the challenge of trying to encourage teachers to reflect on and relate their experiences when, in fact, they may not be accustomed to doing so. Teachers may not always have the language to discuss issues related to their practice and may not be used to talking explicitly about issues related to teaching and learning. The nature of teachers' thought processes and beliefs remind us that the world of teaching is not only multiple but as well, in many ways, hidden. The fact that these worlds are hidden and multiple should not deter researchers from wanting to explore them. On the contrary, researchers can be enticed by the prospect of gaining insight into what represents, metaphorically speaking, unexplored territory while, at the same time, experimenting with innovative techniques such as that of multilogging.

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