

Face to Face versus On-Line Learning

Jon Witts

November 2007

Introduction

This paper looks at the issues that are present in both face to face and on-line communication. For any learning to be successfully delivered or understood by a learner, the manner in which the communication is conducted is of the utmost importance. This paper will consider the communication methods available to teachers and how they can be utilised through the different technologies available in the on-line world, as well as in the face to face environment of the traditional classroom.

Each technology has access to a different number of methods of communication, with the most traditional all being available in face to face communication. However, a number of methods that are only available when using text-only communication methods are identified.

Having identified the different methods of communication available, the pedagogies these methods best fit in to are discussed, and whether the on-line forms of communication merit a new pedagogy or whether the old ones just need to be adapted is considered.

Discussion

In “Face and Communication” István Szabó states “The face is the most important, or rather, the most *fundamental*, tool of human communication”¹. As humans we pick up on a huge amount of information and meaning from completely non-verbal means. In face to face communication we are not only talking and listening to what other people are saying, but also picking up on the verbal nuances, facial expressions and body language of those with whom we are communicating. ² Clark and Brennan (1991) analyse different communication methods and view them in terms of “grounding”. They use the term “grounding” to describe the process of continually updating the common ground of the participants who are communicating. By keeping track of each others common ground, two participants in communication, are able to know how much has been understood by the other party and allow the speaker to know the listener is being attentive.³ They claim there are six tools for grounding communication:

1. *co-presence*: each party being in the same surroundings
2. *visibility*: each party being able to see each other
3. *audibility*: each party being able to hear speech and its timings
4. *co-temporality*: each party being able to receive an utterance as it is produced
5. *simultaneity*: each party can send and receive messages at once
6. *sequentiality*: turn taking can not get out of sequence

In Clark and Brennan’s model of communication there are a number of different ways in which we can show positive (or negative) acknowledgement of our partner’s utterance. These can take the form of uttered “continuers” such as *uh, yeah or huh*, or repeating sections of the utterance to indicate understanding or lack of it. The most basic form of positive evidence in their model is that of *continued attention*. This is the way we show our attention is given to our partner in conversation. For example, keeping eye contact with our partner, or nodding our head at certain points of the communication. ⁴

When you think about communication in these terms, there is a lot of understanding being imparted without it being spoken between the participants; the continued signals of understanding that are gained by the speaker from the listeners, by their nods and use of “continuers”, for example.

The six tools for grounding mentioned above are all present in normal face to face communication, and form the basis for the exchanges that are gained in face to face learning. A teacher can re-word their point if one of the students frowns or looks puzzled at the utterance. If a learner is keeping eye contact with the teacher and nodding at the points being made, the teacher will assume that the learner understands the information being presented.

However when we look at communication in an on-line environment the majority of these tools for grounding are removed. In some cases and using certain tools different grounding methods will remain. For example, in an on line “chat room” co-temporality and

¹ Szabó, I. (2002) p347

² Friedman, R. and Currall, S. (2003) p1328

³ Clark, H. and Brennan, S. (1991) p128

⁴ Clark, H. and Brennan, S. (1991) p133

simultaneity still remain as participants can send each other messages in real time and receive the responses from their partners as they are uttered. In telephone conversations and audio chats on the Internet more of these grounding tools are available to the participants. Audibility and sequentiality are also available as well as the two tools available to participants in on line "chat rooms".

There are some forms of on-line communication that could, in theory, maintain all of these six tools for grounding. For example a video conference certainly has visibility, audibility, co-temporality, simultaneity and sequentiality. You could even argue that the co-presence is met also; although the people involved are not in the same physical space, they can see the space each person occupies in real time. The grounding that is gained from co-presence in face to face communication is most likely to be present in a video conference situation.

Another type of on-line communication that is being developed for education at the moment, is the use of virtual or on-line worlds. In this environment, a user connects to another person in the virtual world using an animated avatar to represent them in this world. Some of these worlds then allow audio communication between different user's avatars, others rely on text based communication. Using the six stated "grounding" points from above, I would say that these virtual worlds have the same level of communication as a phone call or real time on line chat. The co-presence and visibility that these worlds offer do not provide any benefit to the communication process, and may even hinder it. The avatar that the user chooses does not have to represent them in any manner, and there is no transferral of the user's body language or emotions to the avatar; these being the key points that we gain from co-presence and visibility in communication.

When we use purely text based communication methods for our learning we are removing all of the six stated grounding tools from the communication process. Without the tools that are afforded in the on-line world, it would be akin to conducting a lesson by post. The dialogue between tutor and learner would certainly have none of the stated grounding methods. It would be asynchronous textual communication, however the electronic forms of this type of communication have added benefits. In the on-line world, it is possible for more than two people to be involved in the textual dialogue and the time taken for messages to posted to the other participants is greatly reduced.

Electronic text only communication such as text messaging, email and on line forums are unique in that they are asynchronous textual and electronic. The messages that are sent may be sent immediately, but there is an understanding that the participant may not read the message for some time, hours or even days. As text based on-line communication is not subject to co-temporality or sequentiality, it gains two grounding tools that are not available to the other methods of communication:⁵

1. *reviewability*: each party can read and read the previous contribution as often as desired
2. *revisability*: each party can review their statement before sending it. Messages can also be drafted and re-drafted at the participants' leisure.

These two tools that are afforded to the text only forms of on-line communication give it

⁵ Friedman, R. and Currall, S. (2003) p1329

some very different advantages in the learning environment. With the use of on-line message forums another tool is also added, the ability for the participant to review every statement that has been previously said in the dialogue and respond to points raised some time ago and still maintain some form of flow to the communication.

How well any of these communication methods can be utilised in an educational environment is not just down to the merits of each method of communication alone. When looking at their use in learning you have to also consider the application of the communication method by both learner and teacher. Each learner may have a very different reaction to different methods of communication and the teacher will need to be able respond to all of the learners' needs and abilities to effectively communicate through any of these methods.

As mentioned earlier, a teacher can react in the face to face environment to her learners' body language and facial nuances, adapting the communication as prompted by the learners. In on-line, text only methods of communication it is not possible to react to these prompts, so different methods must be used by participants to ensure that understanding is gained from the communication.

In the traditional classroom environment the communication adopted by many teachers is a very instruction based method. The teacher is there to instruct, and the learners there to receive the information being imparted by the teacher. This teaching method has its basis in the Associative learning theory; as set out by Skinner and Gagné. Not all classroom instruction falls into this theory, however. A lot of teachers use the idea of cognitive scaffolding to help their learners develop their understanding. This fits the learning theory of the Constructionists.⁶

Being that modes of communication are so different between face to face and on-line learning, it is pertinent to question whether we simply need to re-address the pedagogy we employ, or to completely rework our existing models to fit this new technology?

A criticism often raised about teachers who readily adopt new technologies in their teaching practice is that they use the technologies without any understanding as to how, if at all, they pedagogically support the learners. For there to be acceptance of these new technologies in the teaching world as a whole, the question of whether they fit in with the current pedagogy must be addressed.⁷ By looking at the different "grounding" methods that are available to each of the new technologies it is clear to see that the manner in which learning will take place will be very different. If a teacher has never seen their students face to face, they can not tell if the student has a frown on their face when reading a piece of instruction; the teacher can not adjust that piece of instruction in real time to support the student.

So how can a teacher deliver instruction and impart understanding through the on-line methods of communication?

⁶ Beetham, H. and Sharpe, R. (ed) (2007) Appendix 1

⁷ Beetham, H. and Sharpe, R. (ed) (2007) p. 3

These tools fit far more comfortably with the Constructivist learning theories, both individual and social, than they do with the more traditional associative theories. The teacher needs to take the role of facilitator more than instructor, as they have less control over when the students will read or look at the information, when the learners could be in a different part of the country, or even in a different time zone!

The associative and instructive models of teaching are efficient, in that they take less time to impart knowledge than the constructivist methods that require learners to find their own way. In a classroom environment, time is critical, you only have so many hours with the students to get through the syllabus⁸. In contrast, on-line learning is not so time critical. The learners access the material in their own time, and as previously stated, the text only forms of on-line communication afford the learner additional grounding methods for the communication. The on-line learner has the ability to review and revise their contributions. These additional benefits certainly lend themselves to the Constructivist models. The teacher can put the wheels in motion on-line and allow the learners time and space to discover the understanding themselves.

There are two schools of thought in the Constructivist camp, the cognitive constructivists, based in Piaget's research and the social-constructivists, based in Vygotsky's research. Piaget (1970) stated that knowledge is constructed from a learner's active and personal experimentation and observation, whereas Vygotsky (1978) stated that meaningful learning and construction of ideas comes from social interaction and that this level of interaction leads to a higher level of cognitive functioning than the associative modes of learning.⁹ On-line learning sits comfortably within the social-constructivist school of thought.

Gilly Salmon, suggests in her book "E-moderating: The Key to Teaching and Learning Online", that on-line learning will not happen automatically just because the learners have access to the tools in an on-line environment. She suggests that the role of tutor or facilitator is even more important. Gilly Salmon refers to this process as "e-moderation" and sets out a five stage model, developed from her action research projects, that will help tutors direct and aid positive social constructivist based learning for the participants.¹⁰

⁸ Meyer, K. (2003) p. 57

⁹ Beetham, H. and Sharpe, R. (ed) (2007) p. 17

¹⁰ Hammond, M. (2007) p.331

Conclusion

This paper has looked at the different modes of communication that are available to us in face to face and on-line environments. It is clear that there are benefits in both types of learning and certain tasks will be more suited to one form of communication than the other. An interesting point to note is that the electronic text-based methods of communication seem to fit within the social-constructivist learning theories better than the traditional classroom based methods of communication do. This is not to say that on-line learning is better than face to face learning; indeed face to face learning has many more modes of communication available to it than on-line communication can ever have; rather it is to say that a more student centric approach to learning may well be easier to achieve when successfully adopting the on-line communication tools that are being made available to learners and teachers.

Although the adoption of these new tools should be used carefully and not just used for the sake of using new tools. The *new* technologies being used are still under development and not without their faults. One major criticism of these technologies is their lack of ability to enable embedded discussion within an artefact that is the focus of the communication. For example, if you are discussing a sketch, picture or object, it is very easy in a face to face environment to annotate and reference back to a specific part of the artefact.¹¹ This is not easy in the on-line world and is perhaps the next area of development for these new technologies.

¹¹ Suthers, D. (2001) p.6

References

1. Beetham, H. and Sharpe, R. (ed) (2007) *Rethinking Pedagogy for a Digital Age Designing and delivering e-learning*. Abingdon: Routledge.
2. Clark, H. and Brennan, S. (1991) *Grounding in Communication*. Washington: American Psychological Association.
3. Friedman, R. and Currall, S. (2003) 'conflict escalation: dispute exacerbating elements of e-mail communication' *Human relations* **56**(11), pp. 1325-1347.
4. Hamer, J. (2006) 'some experiences with the "contributing student approach"' *Specialist interest group on computer science education bulletin* **38**(3), pp. 68-72.
5. Hammond, M. (2007) 'review of g. salmon e-moderating: the key to teaching and learning online' *Book reviews / computers & education* **48**, pp. 329-333.
6. Henderson, S. and Gilding, M. (2004) 'I've never clicked this much with anyone in my life': trust and hyperpersonal communication in online friendships' *New media and society* **6**(4), pp. 487-506.
7. Meyer, K. (2003) 'face-to-face versus threaded discussions: the role of time and higher-order thinking' *Journal of asynchronous learning networks* **7**(3), pp. 55-65.
8. Suthers, D. (2001) 'collaborative representations: supporting face to face and online knowledge-building discourse' *Proceedings of the 34th Hawaii international conference on system sciences* pp. 1-10.
9. Szabó, I. (2002) 'face and communication' *European journal of plastic surgery* **25**(7-8), pp. 347-349.
10. Thorne, K. (2003) *Blended Learning how to integrate online & traditional learning*. London: Kogan Page.
11. Wegerif, R. (1998) 'the social dimension of asynchronous learning networks' *Journal of asynchronous learning networks* **2**(1), pp. 34-49.