

***An Analysis of Nonverbal Communication in  
an Online Chat Group***

*Joan Gajadhar  
John Green*

The Open Polytechnic Working Papers are a series of peer-reviewed academic and professional papers published in order to stimulate discussion and comment. Many Papers are works in progress and feedback is therefore welcomed.

This work may be cited as: Gajadhar, J., & Green, J. *An Analysis of Nonverbal Communication in an Online Chat Group*, The Open Polytechnic of New Zealand, Working Paper, March 2003.

Further copies of this paper may be obtained from

The Co-ordinator, Working Papers Advisory Panel  
The Open Polytechnic of New Zealand  
Private Bag 31 914  
Lower Hutt  
Email: [WorkingPapers@openpolytechnic.ac.nz](mailto:WorkingPapers@openpolytechnic.ac.nz)

This paper is also available on The Open Polytechnic of New Zealand website:  
<http://www.topnz.ac.nz/>

Printed and published by The Open Polytechnic of New Zealand, Lower Hutt.

Copyright © 2003 The Open Polytechnic of New Zealand.

All rights reserved. No part of this work may be reproduced in any form by any means without the written permission of the CE of The Open Polytechnic.

ISSN — 1174 – 4103

ISBN — 0 – 909009 – 66 – X

Working Paper No: 2-03

Manuscript submitted for publication in March 2003.

A list of Working Papers previously published by The Open Polytechnic is included with this document.

## *Abstract*

---

In face-to-face communication, meaning is carried by blending two components: the verbal (with words) and the nonverbal (without words). Nonverbal communication adds nuance or richness of meaning that cannot be communicated by verbal elements alone. Unfortunately, nonverbal elements are generally absent in online discourse. This paper argues that, given time and experience, some of the same richness of face-to-face communication can occur in a virtual text-based medium.

This paper describes the results of research on the various methods students in an online chat group employ to overcome the absence of nonverbal elements. The paper reviews academic literature on online interactions, examines the various techniques students new to an online environment use, and discusses the implications of the findings for online educators for group building and student support.

Transcripts of the postings of students in an online chat group at the Open Polytechnic of New Zealand were recorded, collected, collated and analysed to determine the extent and intent of nonverbal communication used by students in their weekly chats. Our research into students' use of nonverbal communication in online chat points to the need for e-educators to develop effective teaching strategies to encourage student participation in online discussions.

## ***Key words***

---

*Nonverbal, communication, online*

# ***Contents***

---

<b>Introduction</b>	<b>1</b>
<b>Methodology</b>	<b>5</b>
<b>Transcript analysis</b>	<b>8</b>
Excerpt 1	8
Excerpt 2	10
<b>Results</b>	<b>11</b>
<b>Analysis of data</b>	<b>12</b>
<b>Discussion</b>	<b>14</b>
<b>Conclusions</b>	<b>17</b>
<b>References</b>	<b>19</b>
<b>Appendix 1</b>	<b>21</b>
<b>Appendix 2</b>	<b>22</b>



## *Acknowledgements*

---

The authors are very grateful to Prue Cruickshank, Programme Director of the Bachelor of Business at UNITEC, for reviewing this paper.





# ***An Analysis of Nonverbal Communication in an Online Chat Group***

## ***Introduction***

---

Academic literature indicates an increasing role for computer-mediated communication (CMC) in education (Collis, 1998; Graebner, 2000; Hiltz, 1998; Nichols, 1998; Schweizer, Paecter & Weidenmann, 2001; Geer, 2000). E-mail, list servers, and bulletin boards (asynchronous communication methods) are common tools in tertiary education in both contact- and distance-learning institutions. Although there has been considerable research into online asynchronous interactions (Schweitzer, 2000; Harasim, 1995; Anderson, 1998; Giese, 1998; Gunawardena et al, 1997; Green & Eves, 2000) and a wide variety of literature on the importance of nonverbal communication in face-to-face interactions (Bovee & Thill, 2000; De Vito, 2000), we found a lack of research into online synchronous interactions such as chat, especially in the use of textual symbols to provide nonverbal communication elements and the implications their use has for online group building. We contend that there is a need for research in this area, as many tertiary institutions are using chat groups to increase student support. As Green and Eves (2000) argue, using a forum with an adjunct chat group can be beneficial not only in building a social community online but also in affecting overall retention and student achievement. This is especially the case in distance learning, where participants are often unknown to each other and indeed may never meet.

Communication is very often not so much what we write or say, but rather *how* we write and very often what we do *not* say. To successfully send a message, we need to blend the verbal (what we say) with the nonverbal (how we say it or what we don't say). In real time, same place communication, face-to-face communication, ordinary chat, there are many opportunities for this blending to take place. We convey information while expressing our feelings regarding the information by using our voices and body language to control, complement, or add to a receiver's understanding of our message. In contrast, online chat is simple and direct. While it contains many of the elements of face-to-face conversation: more than one person responding at the same time, overlapping, takeovers, digression from the main topic, slang expressions, and omissions, it

is also different from it in that it is a textual representation of conversation. Online chat, therefore, can provide little opportunity for the nonverbal aspects of the ordinary conversational mode of communication.

Bovee and Thill (2000) explain that, while we communicate verbally by using words in a face-to-face conversational mode, nonverbal cues provide 93 percent of the meaning exchanged in the interaction, 35 per cent from tone and 58 percent from gestures, expressions and other physical cues. They suggest that because nonverbal communication is so reliable, people generally have more faith in nonverbal cues than they do in the verbal messages. De Vito (2000) suggests that for a message to have meaning, both elements, verbal and nonverbal, need to be present. He defines nonverbal communication as communicating without words: 'You communicate nonverbally when you gesture, smile or frown, widen your eyes, move your chair closer to someone, wear jewellery, touch someone, raise your vocal volume, or even when you say nothing.'

(DeVito, 2000, p. 130)

Harasim (1995) and Henri (1992) contend that while interactivity is the factor with the greatest influence on learning, the *content* of an interaction is an important source of learning. Rice (1982), as cited by Harasim (1989, p. 45), explains that in a study of computer conferences with geographically dispersed group members, the nonverbal aspects of human communication are generally absent. Instead, the emphasis in online interaction shifts to an exchange of *information*. However, according to Schweizer et al (2001, p. 2) nonverbal communication is a necessity to reveal one's inner state:

Every face to face communication reveals something about the speaker's current condition, his or her emotional and cognitive state. These communicative means seem to determine the speaker's social presence, the degree to which a person's distinct characteristics and modes of expression are perceivable in a communication situation.

Thus, meaning in real world chat messages depends not only on the words we use but also on how we express them by using a range of nonverbal cues. In a virtual world, these cues must somehow be expressed in written text messages or not at all. Feenberg (1989) reflects on a need to overcome the obstacles of text-based discussions, pointing to dilemmas for group participants where nonverbal cues are absent.

The lack of tacit cues in this written group interaction dictates compensatory practices: the only tacit sign we can transmit is our silence, a message that is both brutal and ambiguous ... the solution to this dilemma is explicit meta-communication ... participants must overcome their inhibitions and demand further information ... request clarification of emotional tone and intent.

Online interactions can be either synchronous — in real time, or asynchronous — in a different time frame. Both types of interaction use text and a keyboard to communicate and disseminate ideas via a posting system. However, here the similarities end. Synchronous communication, such as online chat, is fast and furious, demanding instant responses. Nichols (1998) explains that while online communication tools are primarily text-based, online chat is unique in that it requires people to be interacting at the same time. Chats can be likened to a teleconference or telephone conversation rather than to an exchange of letters. Green and Eves (2000) suggest that asynchronous communication, as in a forum or list server, has more in common with an electronic classroom, being formal and tightly controlled. Educational institutions are making use of both asynchronous and synchronous forms of online interaction to provide opportunities for both academic and social support for distance students, but there are drawbacks, particularly with synchronous interactions.

Giese (1998), in his study of electronic communities, explains that virtual communities are formed in a communication environment that denies them many of the communication practices that are so natural to physical environments. He suggests that the need for these practices becomes apparent by their absence. Expressions that participants normally use when in close physical proximity must be expressed in text and communicated electronically. He argues that while we may have the ability to verbalise online, we cannot communicate nonverbally as we do in a face-to-face communication. Parr (1997) also highlights the same problems in her study of two groups of online students in a weekly discussion group who were unknown to each other and many kilometres apart. She explains that because the students' only link was a keyboard, there was a lack of nonverbal communication with no paralinguistic cues used. She sees the emphasis of online interaction shifting to the creation of a new community of discourse. She argues that this new discourse will in time create its own collective meaning when students become more familiar with the medium.

Nonverbal elements of online chat are often absent or go unnoticed. If nonverbal elements are essential to communicate meaning, lack of them or lack of recognition of them in online discussion is cause for concern. We may find, as Rice (1982, cited by Harasim, (1989) did, that because of an absence of nonverbal cues, we may be *providing information* rather than *communicating meaning*. Neuage (2000, p. 7) contends that participants in chat groups can overcome the problem of a lack of nonverbal elements online by employing ingenuity: 'Neither the gregariousness nor the inventiveness that make human beings unique have been left behind as they enter the new social environment of cyberspace'.

Interestingly, the notion of codifying emotional content to give enhanced meaning to a message is not a new concept. As early as April 1857, the *National Telegraphic Review and Operators' Guide* made the first recorded reference to nonverbal communication (Brown, 2002). The number 73 was used to communicate the meaning 'love and kisses' in Morse code, later toned down to mean 'best regards'. In 1908 in Dodge's Manual, the number 88 was used to indicate, 'love and kisses', 73 retained the meaning 'best regards', with 55 shorthand for 'lots of success'. This is more succinct than the usage of LOL (meaning 'laughing out loud') in today's chat groups. The purpose of our current research is to analyse student interactions in a series of online chats, in order to determine the form and extent of any text-based nonverbal communication used by the participants to enhance the meaning of their messages.

## Methodology

---

Online chat has become a key element in the establishment of peer support networks, learning communities, and virtual teams on two courses delivered by distance mode at The Open Polytechnic of New Zealand. Our study involves a chat group specifically set up for one course, *Computer Concepts*. The course was chosen for two reasons:

- Students on this course had little or no background in computing.
- The chats were not compulsory but an adjunct to an asynchronous forum.

The purpose of the course was to teach students to use Microsoft applications and to understand the general concepts of computing, while the purpose of the chats was to add to and enhance learning by providing a social, nonthreatening group environment. Students were encouraged rather than compelled to attend chat sessions. In this way, a much more social atmosphere could be created by the sessions. As Green (2000) explains, the course used a list server and forum to facilitate instruction and discussion and a chat room to develop a social presence online.

Approximately 40 students of the 150 enrolled in the course participated in the online chats. The number of students participating fluctuated throughout the 17-week semester, as did the actual participants. Students were free to enter and leave the chats and numbers in the individual chats varied from 10 to 20 students at any one time. The fact that the chats were not compulsory may have raised questions in the minds of the students regarding the level of importance placed on student participation.

A lecturer attended each of the chats, primarily to get the conversation going, and then remained as observer and facilitator. The chat facility used was that found in the Delphi forum (*Delphi 2001*). Students were provided with information on how to log in and when the chats would be held. We recorded for analysis 15 chats from the 17-week period. Participants were aware that the chats were logged electronically as text files and that they could log the chat as well if they wished. They were allowed to use a nickname to preserve their anonymity if they chose to (Green, Gajadhar & Eves, 2000).

Student networking was actively encouraged as an essential part of the creation of a learning community similar to the real time student common room, bar or seminar room. It functioned as a place where students could meet up, ask questions, talk about the course, and generally get to know their classmates.

Postings from these chats were collected, collated, and analysed to determine

1. whether students were, in fact, using any nonverbal communication
2. the extent of the use of nonverbal communication
3. the forms that were occurring most frequently
4. whether there was an increase in nonverbal communication over the 17-week period as students became more familiar with such communication in the chat.

By analysing student online messages, we could determine whether students were using textual elements to express feelings, akin to nonverbal communication in face-to-face chat, and, if they were, the implications this would have for educators, particularly in a distance context.

One of the most difficult tasks was selecting a method of analysis to determine the use of nonverbal communication in the transcripts. We found, as Henri (1992) did, that methods and techniques that are commonly used for analysis of text, such as literature, news stories, or literary essays, were not applicable to online chat. Henri explains:

CMC-generated messages may belong to the class of print, but they have little in common with texts as we know them. The chronological sequence of the messages does not partake of the logic of spoken or written discourse. CMC messages follow upon each other without immediate continuity of meaning, issuing from several authors who do not usually consult one another before transmitting. (Henri, 1992, p. 118)

Neuge (2001, p. 11) in his literature review on chat room conversations, explains, 'Analysing patterns of words and grammar in chat rooms, Instant Messenger and within discussion group environments will present challenges not faced in other forms of textual analysis.'

Numerous models are useful both for linguistic analysis (Gudykunst & Kim, 1995; Neuge, 2001) and for evaluation of quality in computer conferencing but of limited use for analysis of text in online chat. Gunawardena et al. (1997) describe Hiltz's four dimensions for analysis of computer conferencing:

- technological characteristics
- social and psychological characteristics
- group characteristics
- the interaction of the three factors.

Levin, Kim and Riel's message maps, as described by Harasim (1995), geographically present each reference of one message to another, showing the links between messages. While these models would be useful in pursuing further research into student online interactions, Henri's model (1992) was most useful overall. She used a matrix for message cut-up and analysis with four dimensions: social, interactive, cognitive and metacognitive. Because of the complexity of the researched models and the different dimensions of our task, we required a simpler method. We therefore decided on one similar in some ways to Henri's, but rather than a cut-up and analysis of the individual postings, we colour-coded the logs with emphasis only on the social dimensions. Feenberg (1989, p. 26) sees the use of transcripts or logs as a most effective method of tracking online discussion. He contends that retrievability can be a resource for democracy, empowering the individual by allowing space for reflection, so that the individual can make sense of discussions and formulate views without the face-to-face group pressure for instant assimilation and interpretation.

## *Transcript analysis*

---

We began the process by conducting a preliminary analysis of individual transcripts from the 17-week study period (Excerpt 1).

Excerpt 1 is taken from a transcript of the first week of the chat group, in the first phase of group development, the Orientation stage (Fig. 3). Students are getting to know each other and their facilitator. In our research, we noted that students tended to use a variety of techniques to facilitate their conversations in the chat room. Some techniques reduced the number of keystrokes (abbreviations) and emoticons (Appendix 2). An unusual feature of online chat is that at times two or more students discuss two or more aspects of the same topic simultaneously and continue to do so for some time. It is an anomaly produced by the use of a conversational style in typed text. There are digressions and interruptions in the flow of ideas as participants leave and newcomers are welcomed to the group, just as in real time group discussion. For privacy purposes, we have replaced student nicknames with Student #1, #2, #3.

### ***Excerpt 1***

Student #1: This isn't very fast is it, it seems to be a delay.

Lecturer: It's going via the US!

Student #2: just joined (4 members now)

Lecturer: not bad for 24,000 miles!

Student #3: no delay here, its as fast as I can type and read!

Lecturer: Welcome, (Student #2)

Student #1: No wonder there's a delay, it has to turns itself upside down and back again to go there and back.

Lecturer: :-)

Student #2: thanks

Student #5 joins ...

Lecturer: Ah (Student #5) welcome!!



Student 3: luvmudub.luhtehname!lo!!

Student #5: mmmmmmm C\_\_\_\_\_ here! . LOL

Student #1: I'm from B\_\_\_\_\_, usually sunny but cold today, and grey.

Student #3s: I'm in T\_\_\_\_\_ and by the looks of the list may be the only one there.

Student #2: I'm from C\_\_\_\_\_ deep in the cold

Student #1: Plenty of mainlanders here anyway!

Punctuation and typographical symbols have been used to display emotional cues that are missing in online chat. These old symbols have been modified and put to new uses. The lecturer's use of exclamation points for emphasis early in the passage led to later use by students. The double exclamation points add further emphasis. Student #3 uses three exclamation points, possibly to reflect enthusiasm and add emphasis. Student #1 makes the comment, *Plenty of mainlanders here anyway* and follows it with an exclamation point. This could indicate humour, an attempt to build rapport, or emphasis.

The use of place names illustrates students intertwining, developing rapport, and building identity. By disclosing their locations, a community is starting to build.

'Mmmmmmmmm' is a spoken pause used by Student #5 that has several possibilities. It could show thinking, uncertainty, or agreement.

The lecturer uses an emoticon (smiley face :-)) or ☺ to denote a friendly person and to encourage friendly discourse.

An acronym, LOL (laughing out loud), is used by Student #5 to signify laughter. This acronym, in particular, became a regular occurrence throughout the 17-week period.

The features of 'postcardese' or 'telegraphese' of interactive written discourse (IWD) as discussed by Ferrara et al. (cited in Parr, 1998) are in evidence in the excerpt. Incomplete sentences, *Plenty of mainlanders here anyway*, and misspellings such as *adn back again to go tehre* may indicate the speed of the exchanges. *lo* used instead of hello may illustrate not only the speed but also the informality of the genre. As one student comments, *no delay here, its as fast as I can type and read*.

The use of the contraction I'm is indicative of a conversational style and structure, but its repetition is indicative of support building.

The students and lecturer are attempting here to create identity by using text coupled with a conversational mode.

In Excerpt 2, there are further indications of the use of text to add nonverbal elements in conversation and rapport building.

## **Excerpt 2**

Student #5: ohh, ??? (question marks and repetition of h showing emphasis or meaning 'I am not sure what you meant.').

Student #5: sorry l... (emotive word, sorry, repetition of full stops for pause and effect, hesitation meaning 'I need to understand, but I didn't').

Student #5: oopopsss (slang, repetitions of sounds, for emphasis or admission of mistake: 'I made the same mistake again').

Student #6: hi there... sorry I took so long but I had to attend to my tounge (which is presently bleeding having bit it... man I am so stupid... (a combination of nonverbal elements).

Student #1: you can copy it into Word but would eb easier to print... (misspelling, hesitation).

Students have used exclamation marks, repetition of full stops, question marks, capitals, abbreviations, and exclamations such as oops, mmmmm to signify feelings. Student #6 appears to be reaching out for support from the others in the chat. When typing, *man I am so stupid*, the student may be looking for someone to disagree. Misspellings signify the rapidity of the replies.

## Results

---

We made a list of nonverbal elements that were similar to those used in face-to-face conversation. Each log and individual message was then studied in the same way as Excerpt 1 was to determine any elements that were common to those used in real time and the elements assigned a colour. The common elements included verbal pauses, repetition of words, emotive language, symbols and punctuation marks. We added the acronyms and emoticons that we observed at this stage (see Fig.1). We then returned to each transcript, colour-coding these elements. These were totalled and converted into graphs showing the extent and intent of the individual nonverbal elements in the text messages.

In our analysis we concentrated on the following communication techniques:

- orthographic pictures or emoticons
- text emphasis cues, such as the use of multiple exclamation marks, question marks and full stops
- discourse markers such as *but* or *umm* or *oh*
- emphasis by capitalisation, such as *ALL*
- abbreviations or shorthand such as *brb* (be right back) or *cya* (see you) (Appendix 2).

As the full range of nonverbal communication used was unknown, the use of any text-based nonverbal communication was recorded, as well as any use of slang phrases, stock phrases, and emotive words. While silence is one of the most important elements, as stated earlier by Feenberg (1989), we could not easily record silence or lengths of pauses, so unfortunately this element had to be omitted from this study.

Once each item was manually noted and totalled on each page of the log, the totals per log were recorded on an Excel spreadsheet. The items were then sorted by the total of the number of times of occurrence of the item over the 17-week period to determine which items were used most frequently (see Appendix 1). The 12 most popular items were then tracked from the beginning of the 17-week period to the end of the 17-week period to determine if there was an increase in use. It is important to understand that the individuals participating in the chats varied from week to week but the number of students present was fairly constant at 15 to 20.

## *Analysis of data*

---

Over the 17-week period, more than 152 nonverbal communication items were recorded. In many cases these were variations on a theme or different spellings of the same verbalisation, for example *okay* or *ok*. Many of these were repeated many times. This study was concerned only with the most popular methods of self-expression (see Appendix 1). Data was then categorised by frequency (Fig. 1) and intent (Fig. 2).

Nonverbal cue	Number of occurrences
Multi ...	210
Multi !!!!	73
Multi ?????	45
Capitals	21
LOL	39
See ya	37
Okay	27
:-)	22
Oops	17
Oh	15
Yep	14
Wow	6
Hey	5

*Fig. 1 Types and numbers of nonverbal expressions used*

Intent of nonverbal communication	Number of occurrences
Exclamation for emphasis	90
Show happiness	72
Show agreement	51
Question	48
Negative exclamation	41
Exit word	40
Negative emotion	32
Emphasis	29
Positive exclamation	19

*Fig. 2 Intent of nonverbal communication used and number of occurrences*

## Discussion

---

Hiltz (1998) and Anderson (1998) suggest that a prerequisite for success in any electronic forum is the creation of a community spirit. Green and Eves (2000) emphasise the value of online groups in enabling students to get to know others with whom they are working. In Excerpt 1, the students were doing exactly this, giving their backgrounds, establishing bonding. They used verbal elements but they were often coupled with nonverbal elements in the same text message. Student 5 writes mmmmmmm C \_\_\_\_\_ here. LOL, thus combining the information — being from C\_\_\_\_\_, the spoken pause, repetition of mmm sound to signify agreement, and the abbreviation LOL (laughing out loud) to show a happy state of mind, much as one would use a laugh to enhance the conversation in a face-to-face introduction. This excerpt from a log early in the course reflects the first phase of orientation in the development of an online group (see Fig. 3).

The form used most frequently was the simple repetition of punctuation. This may have resulted from the students' copying of the style used by the lecturer or other students. For instance, in Excerpt 1, after the lecturer says **Ah welcome!!**, three students use a single exclamation point for emphasis. The lecturer's smiley face (emoticon) was not copied in this excerpt, but did appear in later transcripts along with abbreviations such as **BRB** (be right back), **f2f** (face-to-face) and **LOL** (used 38 times during the period of the study).

One hundred and fifty-two styles of text-based, nonverbal elements were identified in our study. These varied from a simple repetition of punctuation such as ..., or !!!! for pause or emphasis to orthographic pictures or emoticons such as :- ) and abbreviations such as **LOL** or **BRB**.

When we tracked the use of each of the items over the weeks, we observed very little discernable change in the number of expressions used and the frequency with which they were used. The majority of students appeared to leave the chat group with the same level of nonverbal communication as they had when entering. However, there were exceptions. Several of the students involved in early discussions, in subsequent chats, used many more nonverbal elements, particularly exclamation marks for emphasis. Many of the students made frequent use of onomatopoeia, for example, words such as **whizz**, **eek**, **eh**, **aaarr**, (suggesting relief, frustration, annoyance, or humour) or **beep beep beep** (a desire to get into the conversation, meaning 'Make way, I'm coming' or 'Let's move on'). The repetition of these sound words is open to a variety of interpretations, or possibly misinterpretations. It can be argued that they demonstrate the desire by students to add a subtle, emotive meaning to text messages.

Students often copied the lecturer's use of typographical symbols such as repetition of punctuation marks for emphasis. Participants in the chat room appropriated familiar text emphasis cues (see Fig.1) without resorting to fashionable jargon and abbreviations as in the list of emoticons (Appendix 2), which might be impenetrable to newcomers. The appearance of such jargon could be evidence of attempted clanning, where only an in-group understands the jargon (Popcorn, 2001). It is unnecessary in a short-term community.

Negative emotions and exclamations (73) were used less frequently than positive, happy, agreeable exclamations (142) (see Fig. 2). However, students did refer negatively to themselves and their abilities, prompting us to wonder whether they were seeking supportive and affirming messages from the rest of the group. Student #6 in Excerpt 2, *man I am so stupid,*) may be searching for a disclaimer from classmates such as, 'No you're not.' This possibly illustrates the students' need for up-beat, encouraging, supportive feelings, so important in establishing a non-threatening social online group, especially in the orientation and emergence phases of group building and later in the reinforcement phase (see Fig. 3).

While we recorded 147 expressions that could be construed as agreement (14 *Yep*, 27 *Okay*, 6 *Wow*, 5 *Hey*, 22 *:*), 73 multi *!!!!*) in Fig. 1, there was little evidence of any disagreement. There are 45 uses of *????* in Fig. 2, which might be construed as conflict or as seeking clarification (orientation) (see Fig. 3). This frequent use of queries could be a direct result of the educational nature of the chat group, the need for mutual cooperation to ensure mutual success, and the moderating influence of the facilitator, though it could be due to the reduced social presence resulting from the reduced self-disclosure in e-learning. Our research demonstrates that

1. attempts were being made by students to communicate feelings using written texts and symbols
2. the majority of these expressions had positive rather than negative connotations, indicating the building of a social support community online.

We did observe that the four stages of group development were present. However, one phase did not neatly follow the other, nor were all four stages always present in each chat.

# Phases of Group Development



**Orientation**



**Conflict**



**Emergence**



**Reinforcement**



*Fig. 3 Phases of group development*



## *Conclusions*

---

Gudykunst and Kim (1995) state that only messages can be transmitted, not meaning. On the basis of our study, however, we found that in an electronic space with a limited set of reference points and with common aims and references, meaning can be transmitted by a variety of verbal methods to express nonverbal communication elements. Students expressed their feelings as much as they would in normal conversation, by using text in innovative ways.

We found that students communicating in the various chat sessions were not attempting to develop new tools, but were constantly reinventing the tools they had at hand to fit the developing social community, as evidenced in the repetition of punctuation symbols. Giese (1998, p. 12) suggests that personal identity and community are closely intertwined in an online environment. 'In essence, identity and community are text and context and are mutually defining. The "clues" expressed in the text become the persona to the other members of the group.'

Lander (1998), in his study of online learning, explains that the effectiveness of online learning tasks depends in large part on the amount of interaction they generate, but the sort of interaction that is most effective is not so obvious. He contends that it is when social interaction is integrated with cognitive interaction that learning is most effective. This suggests that collaborative efforts can be used for both social and learning situations, as in the use of an online chat group with the more common asynchronous forms of student support (cognitive) to ensure learning is effective.

It is important to determine whether there is an increase in both the quantity and type of social interaction of students as they become more familiar with the virtual community they have constructed, as well as with computer technology.

Rice (1982), as cited by Harasim (1989) and Harasim (1989) state that nonverbal elements are generally absent in online discourse. While we agree that these elements are generally absent, we have found that students are addressing this absence. They are using verbal elements and adapting these to add nonverbal communication to their postings, demonstrating a need that students have to establish a social community, as well as a cognitive one. Being aware of this need is one step towards establishing a social community. More encouragement by facilitators in the orientation and emergence phases of group building could

aid in building rapport, as evidenced in the chats, where students used more text-based nonverbal cues the further they went in their discussion and the more encouragement they received from the facilitator. We may need to

- consider incentives to ensure provision of help and information in discussion groups
- suggest ways to stimulate discussion
- consider our role as facilitators in contributing to online discussions
- examine the size of our online groups and our reasons for having them.

In our study, while the nonverbal communication appears limited and lacks the nuances present in a face-to-face situation, given time and experience with the medium there is no reason why some of that richness cannot occur in chat. Thankfully, lecturers new to online environments do not have to undertake a course in orthographic pictures and trendy acronyms, for most students are already communicating by appropriating old typographical symbols and putting them to new uses.

## References

---

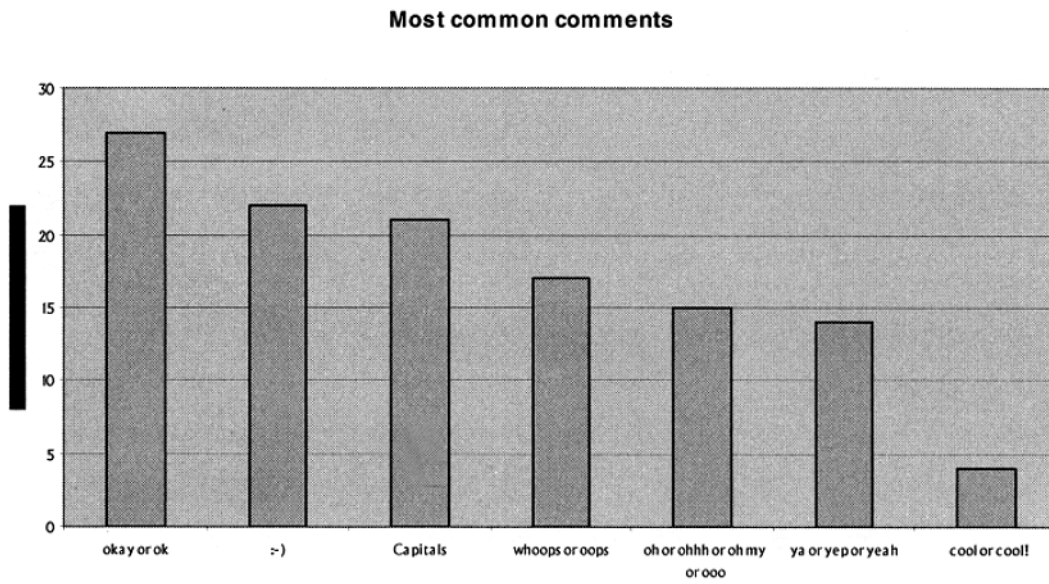
- Anderson, M. (1998). Critical elements of an Internet based asynchronous distance education course. *Journal of Educational Technology Systems*, 26(4), 383–388.
- Bovee, C., & Thill, J. (2000). *Business communication today*. Englewood Cliffs, NJ: Prentice Hall.
- Brown, K. (2002). Telegraphic codes: Of morse and men. (n.d.). Retrieved January 28, 2002, from <http://users.hunterlink.net.au/westlakes/pagear.htm#QZ>
- Collis, B. (1998). *Telelearning in a digital world*. London: Thomson Computer Press.
- Delphi Forums 2000. (n.d.). Retrieved January 8, 2002, from <http://www.delphiforums.com>
- DeVito, J. (2000). *Human communication*. New York: Longman.
- Feenberg, A. (1989). The written world. In R. Mason & T. Kaye (Eds.), *Mindweave*. Oxford, NY: Pergamon Press.
- Fowler, F. G., & Fowler, H. W. (1992). *The pocket Oxford dictionary*. Oxford: Clarendon Press.
- Galvin, M., Prescott, D., & Huseman, R. (1992). *Business communication, strategy and skills* (4th ed.). New York: Holt, Rinehart & Winston.
- Geer, R. (2000, September). Social interdependence in collaborative interactivity in an Internet based environment. Paper presented at ICDE Conference, *Competition collaboration continuity change*, Adelaide, Australia.
- Giese, M. (1998). Self without body: Textual self-representation in an electronic community. Retrieved January 30, 2002, from [http://www.firstmonday.dk/issues/issue3\\_4/giese/index.html](http://www.firstmonday.dk/issues/issue3_4/giese/index.html)
- Graebner, C. (2000). Enquiring into group learning online. Retrieved January 8, 2002, from <http://www.leeds.ac.uk/educol/documents/000000717.htm>
- Green, J. S., & Eves, C. E. (2000). Structuring discussions in an electronic forum on a distance education course. *Proceedings of the ASCILITE 2000 Conference*. Lismore, NSW: Southern Cross University Press.
- Green, J., Gajadhar, J., & Eves, C. E. (2000). An analysis of student interactions in an online chat group to determine the factors that constrain and promote online discussion. *Proceedings of the ASCILITE 2000 Conference*. Lismore, NSW: Southern Cross University Press.

- Green, J., & Eves, C. E. (2000). Online teaching using an electronic forum in distance education. *Proceedings of the 13th Annual Conference of the NACCCQ*. Hamilton, NZ: NACCCQ.
- Gudykunst, W. B., & Kim, Y. Y. (1995). Communicating with strangers: An approach to intercultural communication. In J. Stewart (Ed.), *Bridges not walls* (pp. 429–442). New York: McGraw-Hill.
- Gunawardena, C., Lowe, C., & Anderson, T. (1997). Analysis of a global online debate and the development of an interaction analysis model for examining social construction of knowledge in computer conferencing. *Educational Computing Research*, 17(4), 397–431.
- Harasim, L., Hiltz, S., & Turoff, M. (1995). *Learning networks: A field guide to teaching and learning online*. Cambridge: MIT Press.
- Henri, F. (1992). Computer conferencing and content analysis. In A. Kaye (Ed.), *Collaborative learning through computer conferencing: The Najdan papers*. Berlin: Springer-Verlag.
- Hillman, D., Willis, D., & Gunawardena, C. (1999). Learner interface interaction in distance education: An extension of contemporary models and strategies for practitioners. *The American Journal of Distance Education*, 8(2), 30–42.
- Hiltz, S. (1998). Invited Address at 'Web 98', Orlando, Florida, November 1998. Retrieved September 10, 2000, from <http://eies.njit.edu/~hiltz/>
- Lander, D. (1998). Online learning: *Ways to make tasks interactive*. Retrieved January 8, 2002, from <http://ultibase.rmit.edu.au/>
- Neuage, T. (2000). *Literature review on chat room conversation*. Retrieved January 8, 2002, from <http://se.unisa.edu.au/lit.html>
- Nichols, M. (1998). *I-Chat why chat?: Social, educational and business communication issues*. Paper presented at New Zealand Communication Association Conference, Taupo, New Zealand.
- Parr, J. (1997, December). *Classroom discourse revisited in cyberspace*. Paper presented at the New Zealand Association for Research in Education Conference, Auckland.
- Popcorn, F. (2001). *Clanning*. Retrieved May 22, 2001, from <http://brainreserve.com/trends/clanning.htm>
- Schweizer, K., Paechter, M., & Weidenmann, B. (2001). *A field study on distance education and communication: Experiences of a virtual tutor*. Retrieved January 8, 2002, from <http://www.ascusc.org/jcmc/vol6/issue2/>

# Appendix 1

---

Table 1: Most common comments



## ***Appendix 2***

---

### ***List of common emoticons***

**H8** Hate

**IMHO** In my humble opinion

**JTLYK** Just to let you know

**L8** Late

**L8R** Later

**LOL** Laugh out loud

**Mob** Mobile

**Msg** Message

**No1** No One

**OIC** Oh I see

**PCM** Please call me

**PLS** Please

**PPL** People

**RU** Are you

**RUOK** Are you OK?

**SOME1** Someone

**THX** Thanks

:) Happy

;-) Wink

:-o Surprised

:( Sad