

# How Language Learners Can Develop Communication Skills in English: An Analysis of the Structural and Interactional Aspects of Teleconferences in the IDEELS Telematics Simulation Project.

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**Abstract-** This study focuses on the characteristics of the interaction produced during online teleconferences, especially from the point of view of the structural organization and the opportunities the learners have for interacting with their peers in other cultures. Students from different academic backgrounds in tertiary education institutions in Europe, including Engineering, (Telecommunications and Computer Science), and the Humanities, take part in a telematics simulation Project, named IDEELS, (Intercultural Dynamics in European Education through online Simulation), which involves the participants in producing a large amount of written discourse, all in English, which is composed and sent via computers as either synchronous or asynchronous communication. Research into interaction in different language learning contexts has shown that students benefit from task-oriented activities involving negotiation of meaning, and that this is also beneficial for increasing awareness of the form of the language for testing hypotheses, for the syntactic processing required for producing language and for improving grammatical competence.

*Index Terms* – Interactional competence, Language learning, Telematic simulation.

## INTRODUCTION

In the last few decades, and in most areas of knowledge related to education, there has been a shift in emphasis from environments where the teacher is the absolute controller of the classroom dynamics, to a much more learner-centred focus where the participants (i.e. the students) take an active part in their own learning process.

The field of language learning has been no exception to this. Indeed, one could argue that it has been one of the pioneers of learner independence (especially within the teaching of English as a Second or Foreign Language). We have seen teaching pedagogy swing from the behaviourist methods of the 60s, with their emphasis on habit-formation

brought about by imitation, reinforcement and repetition, to the more eclectic, Communicative Approach to language learning where the focus is on helping learners to make optimum use of both receptive and productive skills to achieve real, and realistic, communicative goals in the target language.

Critics of the Communicative Approach argue that there is too much emphasis placed on fluency to the detriment of accuracy, but research into interaction in the language classroom has shown that students do benefit from task-oriented activities involving negotiation of meaning [7, 13, 15, 21,] and that this is also beneficial for increasing awareness of the form of the language [8, 17], for testing hypotheses, for the syntactic processing required for producing language and for improving grammatical competence [10, 15, 20].

The importance of interaction with peers (including those with a lower level of proficiency) should not, therefore, be underestimated, especially as many learners do not have any other opportunity for practising outside the classroom. Prior to the more widespread adoption of more communicative modes of teaching, the amount and type of typical language exposure in a traditional class was often limited to exchanges between the teacher and a student with the following pattern, called I+R+F (initiation, response and feedback):

Teacher (initiates the exchange): Where do you live?

Student (responds): I live in Valencia.

Teacher (provides corrective feedback): Yes, you live in Spain.

Hardly an authentic model for language use outside the confines of the classroom!

In the Communicative Approach, classroom activities are designed to provide opportunities for students to use the target language to interact with their peers in a more meaningful way; to encourage language use which involves more authentic objectives mirroring those which might be expected in real life encounters. Of course, one cannot escape the fact that these activities take place and develop in a classroom; as in the theatre they require the suspension of

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disbelief – which in our experience all students are more than happy to engage in – nevertheless, to borrow a phrase from Skehan [18], well-designed tasks require the language learner to operate at the ‘cutting-edge’ of his or her language proficiency.

### COMPUTER MEDIATED COMMUNICATION

Numerous studies have documented the positive effects of computer mediated communication (CMC), so we will limit ourselves to mentioning a few of these. Several researchers [3, 1, 12, 19, 22] have noted that the amount and type of language production increases, especially in comparison with face to face activities or group work carried out in the classroom. It is not difficult to imagine how much more (and more meaningful) language is produced in the relatively anxiety-free environment provided by networked computers when compared with the I+R+F situation mentioned above. Finally, it is semi-permanent, and therefore provides researchers with a rich source for investigation of many different aspects of authentic language production.

Naturally, CMC is not without its drawbacks. One is that there can be a tendency for a lack of coherence in the structure of the ‘dialogue’, more so when there are many participants, so that following the different threads of the sequences is not always straightforward. The difficulty is increased when we take into account the fact that the participants are trying to follow the flow of interaction in a language that is not their mother tongue. A further criticism is that participants cannot make use of the nonverbal behaviour which is such a fundamental part of face to face communication. However, by using *emoticons*, certain punctuation signs, and diminutives some affective aspects that would otherwise be missing can be incorporated. Lastly, the increased fluency required of the participants to keep up with the pace of the postings can obviously affect the grammatical accuracy or choice of vocabulary, but the fact of having a written record of the production can be used a posteriori to analyse the language used and design materials to bring any language points requiring clarification to the students’ notice.

### CMC IN ENGLISH FOR SPECIFIC PURPOSES PROGRAMMES

Most language programmes which have been developed specifically for students of the different engineering degree courses emphasise the acquisition of skills which will, in principle, help the students understand the scientific articles and technical texts related to their field of study, and develop strategies for note-taking, report-writing and other study skills. There is less time, as a result, for involving the students in activities to practise their interactional skills in the target language. The situation described in this paper involves students from various academic backgrounds taking part in a telematics simulation which we believe not only promotes intercultural communication among tertiary education institutions, but also encourages students to participate in meaningful exchanges and has led to benefits in the development of their communication skills.

### AIMS OF RESEARCH

Studies that have been carried out into the type of language produced in human-human interaction mediated through the computer [5, 4] suggest that we are dealing with a new variety of language which shows characteristics typical of both spoken and written forms. In the case of a teleconference like the one we describe, although the discourse is written, in many instances structures and forms of oral interaction are used. As Johanyak [11] notes, in many computer mediated activities, students engage in ‘writing’ discussions in which multiple conversations occur almost simultaneously, switching from a more formal writing mode, to more colloquial, informal chatting from one turn to another. He also points out that the medium used, in this case computer technology, limits to a certain extent the language users’ rhetorical options for communication, although the writing itself is still determined by the participants own textual constructions, based on the individual, cognitive and contextual experiences they have brought to the technology.

Our aim in the research was to try and determine the characteristics of our students’ online written production, how the structure resembles that of conversational patterns in face to face interaction, and how the interaction promoted a series of sequences in which the students had to delay the main topic being dealt with in order to negotiate meaning. In order to do this, we have borrowed certain terms originally used by Conversation Analysis (CA) to describe the structural aspects of interactive communication, taking into account the turn-taking system, opening and closing sequences, etc. whilst on the interactional-meaning level we established which negotiation routines were most used, how repair was carried out and what role punctuation plays in the course of the simulation.

### THE DYNAMICS OF TELEMATICS SIMULATIONS

The Polytechnic University of Valencia, Spain, has participated in the Project IDEELS, a Curriculum Design Initiative carried out under the auspices of the European Commission’s Socrates programme, which has developed a series of telematics simulations for educational purposes. Coordinated by Dr. Janet Sutherland at the University of Bremen, the interdisciplinary, intercultural communication project IDEELS involves several tertiary institutions in Europe. The participants take on specific roles, negotiate, and make an attempt to deal with the problems that the fictitious federation, Eutrophia, faces through discussion and cooperation firstly, within their own group, and latterly with others, in order to come to an agreement on a general policy statement.

We are going to describe a teleconference on the theme of Tertiary Education Policy (the web page for the IDEELS Telematics Simulation is <http://www.ideels.uni-bremen.de>). Participating universities were:

- University of Bremen, Germany
- University of Bergen, Norway
  - Nord-Trondelag College, Norway
  - University of Nice, France

- The Polytechnic University of Valencia, Spain

The students were from different academic backgrounds ranging from English Philology to Telecommunications, Computer Science, Psychology, Multi-media Pedagogy and English as a Foreign Language (EFL). The language used throughout the simulation was English.

The topic the students were to debate about was: University Education in Eutropia, and more specifically, State Educational Policy, state funding – where this comes from, which degrees to offer, student intake, entry requirements, fees, and the use of Information and Communication Technology. The dynamics of the simulation are as follows:

1. The teams are formed, involving representatives of the different regions of Eutropia (Northland, Bardland, Coastland, etc. and various non-governmental organizations, citizens' groups, trade union associations, the media, etc.). Once the groups have themselves established a set of guidelines for their Internal Briefing Document, they then elaborate their own Policy Statement which is sent to all participants, after which they start to communicate with other groups in order to create alliances for the online teleconference. These negotiations are carried out by sending messages, by e-mail, through OPUSi, the computer based communications system developed for the simulation by the students of Computer Science at the University of Bremen.
  2. The online teleconferences are scheduled and barring any last-minute technical hitches, all the different institutions will log on at more or less the same time. During the synchronous conference, participants will generally communicate either with all the other groups, or they may 'whisper' by sending messages to a particular group, or to members of their own group. At the end of the conference, an agreement is reached, and the whole event ends with a less formal post-simulation conference.
- In this simulation the teams are logged on for 5 teleconferences adding up to a total of almost seven and a half hours online.

### THE STRUCTURE OF THE TELECONFERENCE

Like other types of social interaction that have been studied, we have found that the teleconference is a mode of communication with certain structural characteristics which mirror those of face to face interaction, in the sense that they are rule-governed and the participants create meaning through language and through the individual interpretation of the interaction as it develops on the screen. In our study we are going to give examples of how the participants in this online teleconference organize their linguistic behaviour, and how it is to a certain extent conditioned by the medium they are using and the type of event they are participating in, but how they actually use different strategies to try and overcome any apparent difficulties.

#### 1. Turn-taking

In face to face interaction, turn-taking is usually organized so that the present speaker can either give up or maintain a turn at a transition relevant place, or talk can be taken over by another participant who self appoints him/herself as next speaker. This often comes about through certain interactional devices such as question-answer, and greeting-response pairs, when one speaker asks another a question the turn is given to the interlocutor in order that s/he may respond to the first part. Signals that also may be given in face to face interaction to indicate speaker change include a whole range of non-verbal signs involving gaze, body posture, etc. Due to the absence of non-verbal signals in CMC, we have noted that the participants in the teleconference used the following strategies to indicate speaker change, although technically speaking when a participant presses 'enter' s/he is giving up the floor:

When one participant makes a direct question to the whole group (note that participants' contributions have not been corrected):

- <2:449:1>This is a test from Team D – Anybody out there?
- <220:491:5> Who wants to evaluate the Bardland paper? Any volunteers?

Turns are also passed on by asking a question or making a comment to a previously specified message number as in:

- <1077:491:31\*> #27

And how about the students of 30 years of age or over?  
\*the last number indicates the chronological order of the postings.

Indeed, due to the very fast apparition of postings on the screen, which can, nevertheless, be paused by participants in order to look more closely at a turn, the dynamics of the interaction probably make it necessary to write a reference to whom the message is addressed, in order to maintain some sort of coherence since there are often several different sequences going on at any one time during the conference.

However, unlike face to face interaction we have found numerous examples where the first part of an adjacency pair of the type question-response does not actually get answered such as the following:

- <1138:491:64> #60 How is your suggestion about measuring 'life-experience'? Shouldn't we rather be talking about 'work-experience'?

On the other hand, there may often be multiple responses to a first part comment such as:

- <1218:490:101> Changing into statement 5, we believe that three years are enough for a good education in the most of degrees and one for job internship
- <1225:491:105> #101 Three years- without the practical semester and the exam phase? Do you think this is a good idea? Cathy
- <1226:486:106> #101 4 years + 1 year practice + half year preparing the finnal exam
- <1232:485:110> #101 It depends on what you study (issue) ?

We also note that unlike conversation between 2 or more participants, the second part of an adjacency pair may not be answered, due to the time lag, until several turns later, the average being between 5 and 10 turns,

- <1278:486:139> #137 we think everyone should study that he wants and can choose his subject combination
- <1287:491:144> to 139 Does this include extremely useful combinations like Ethnology, Hebrew and Fine Arts?

and the maximum we have found was 46 turns later with the following sequence:

- <2621:1180:106> in Nice the university of letter has too much students so the department of psychology has moved away that's why a
- <2667:1198:133> that's why what?

However this question does not get answered as the topic has moved on and participants probably do not know what this posting actually refers to.

The following is an example of a 'whisper' where a group member sends a message to another person in the same group which is not seen by any of the other groups, and curiously enough we do have an example here of adjacency, in fact the number of the postings actually coincides, meaning there was a split second between turns:

- <1172:491:82> Can I answer to #80? Nicola?
- <1173:491:82> sure, go on.

When one participant makes a question to certain members of their own group they are passing on turns to their conference-mates:

- <227:491:5> Nicola and Anne! What shall we do?
- <232:491:15> to sven from gayle. your answer please

Another way in which the medium influences the turns is that in face-to-face interaction the person who is giving up their turn would never have a need to identify themselves. Whilst whispering, however, this is a necessary requirement in this sense, making it more like written communication in a letter or e-mail:

- <236:491:12> Anne: sorry Ce, was me

The participant identification, however, can be confusing from the researchers point of view, as the name of the sender is sometimes written before the turn, as in the last example, or after, as in the next posting:

- <234:491:10> I would do the Northland paper. Rebus

A common feature of face to face interaction is the phenomenon of interruption. Normally, participants cannot interrupt one another as it is technically impossible to respond to a message when it hasn't actually been finished and sent by another participant [11, 26]. A turn can last for as long as one person wishes to write, although in our data the turns were, in general, short, except when a group was sending its opening/policy statement which was nearly always a pre-prepared text. It is interesting, therefore, to observe that the participants themselves can perceive that interruptions do take place as in the following:

- <2940:1190:63> tO ALL GROUPS, PLEASE TRY TO FOLLOW THE CONVERSATION. dON'T INTERRUPT
- <2949:1980:67> #63 we're so sorry!

This particular message also gives the impression the participant is angry – punctuation, as we shall comment on later, can show varying degrees of emotion in the writer – making up for the lack of nonverbal cues in this type of conference.

## II. Opening and Closing Sequences

In interaction there are certain rituals that open and close the different types of communicative encounters we have. These vary depending on the type of communication (telephone calls, service encounters, email, public speech, etc.), and tend to be culturally bound. In the teleconference each team has to have an opportunity to say they are 'present' identify themselves, and greet the other participants:

- <990:486:2> Hi everybody! Coastlanders are here.
- <992:490:3> Hello every country of Eutropan Federation:

Likewise, the closings follow similar patterns with the pre-closing and closing sequence often in the same turn:

- <1392:491:217> Time is up! Let's continue the discourse through message center! Midlanders would like to say 'bye-bye' to all the other delegations and we hope to hear from you soon! Keep up with messages and memos!

However, interaction continues with the following:

- <1400:485:219> goodbye. We have a snowstorm to attend
- <1402:486:220> Lucky you!
- <1404:486:222> Bye bye! The Coastlanders

## III. Negotiation of Meaning

Negotiation in a language learning context refers to the modifications or adjustments that take place during conversations between native speakers (NSs) and non-native speakers (NNSs), or exclusively between NNSs, in order to allow for a better understanding of the discourse at hand. The research work that has already been done on conversational adjustments in NS/NNS [7,14,] and NNS/NNS [8, 15] interaction confirms that negotiation certainly gives learners the *opportunities* to attend to L2 form and to relationships of form and meaning [15]. Participants co-construct meaning using various resources such as comprehension checks, clarification requests, direct questions, repetition and non-verbal cues. It has also been suggested that not only are these modifications essential for the understanding of the interaction, but also following Swain [20], the modified output that the learner is encouraged to do during negotiation i.e. the reorganising of the syntax to make form and meaning clearer, also contributes to the acquisition of the target language. There is undoubtedly little negotiation going on in many language classrooms, even now, and therefore we maintain that the type of intercultural communication described in our research is beneficial for language acquisition.

As noted by Pica [15] most of the speech modifications concern lexis, requiring changes to be made through repetition, replacement by synonyms, paraphrase, etc. This is certainly confirmed in our data. In face to face interaction between learners of a foreign language the two main incidences of actual communication breakdown involve non-target language like pronunciation, and non-recognition of the vocabulary. Very rarely would a grammatical error, such as dropping the third person singular -s, (she go\* to the university..) or the use of a non-existent form for an

irregular past tense (she goed\* to the university) actually impede communication. They may notice the error, and this may be beneficial, but learners will normally avoid correcting their peers unless the classroom task actually requires them to do so. It is potentially a face threatening act and participants will not purposely offend their interlocutors by showing they know less than themselves. The type of sequence we have found more frequently are comprehension checks and clarification requests concerning the ideas or content, and were not seemingly triggered through non-understandings, or misunderstandings from a strictly linguistic or grammatical point of view. Gass [6] has indicated that during interaction semantic comprehension occurs prior to syntactic comprehension, and this is probably decisive in the sense that if a word is understood in the context, its morphological characteristics take second place as regards meaning. On the other hand when students are engaged in other tasks, such as information gap, jigsaw activities, the task is actually designed so that more intense language negotiation must be carried out in order to complete them.

Varonis & Gass [21] have described the typical pattern involved in the structure of negotiation sequences. There is normally a word or expression that triggers the need for negotiation. This is followed by an indicator on the part of the interlocutor that there is a communication problem. A response ensues which attempts to clear up the problem and this may be followed by an optional reaction to the response.

- <2325:490:193> nk you for being so fast Midland (trigger)
- <2329:491:195> What exactly does nk mean ? ;-) (initiator)
- <2332:490:195> Sorry we meant thanks. (response)

In the following case we have a clarification request:

- <2650:1180:121> We think the number of students mustn't depend of the fact that they are rich or not. Here we don't need to pass an exam to go to university we only need the "baccalaureat"
- <2655:1191:124> What is "Baccalaureat"?
- <2658:1180:127> "Baccalaureat" is high school exit exam

In fact this question is answered by three different messages giving an idea of the cooperation that actually goes on while negotiating meanings.

Explanation requests are slightly different and require more elaboration, such as in the following:

- <1081:486:33> #27 students over 30 can of course study, but under different conditions
- <1086:491:37> #33 Please specify 'different conditions'!

As we mentioned above, there are very few examples of grammatical errors being corrected in this negotiation process. The following is one of these:

- <2916:1197:49> For 30. if there are fewer student in university there are no selection for enter, but less students can't enter in the university. Are you agree?
- <2925:1190:54> To Oliver: speak correctly, please. We're not agree, we just agree

This second message was first sent as a whisper and then immediately to all the groups. In neither case was it responded to.

In conversational interaction, repair follows patterns depending on who initiates the repair and who actually carries this out [16]. During the IDEELS conference we have observed the following types in our data:

a) Other-initiated other repair, in this case the error is pointed out by one group and the actual repair is carried out by another.

- <2585:1189:81> #69,Nowadays,the situation is better than before about university access but the buildings are destroyed
- <2586:1201:81> destroyed?
- <2594:1198:88> #82 destroyed = in poor repair

b) The normal type of repair, though, is other initiated self repair, as in:

- <2954:1198:69> how much is 100000 pesetas in euros??
- <2971:1180:79> #68it's 37 349 euros
- <2982:1198:86> are you crazy??37 349euros???
- <2993:1180:95> it's a mistake, we are sorry

c) In the case of self-initiated self repair the writer has seen the mistake and sent a message to do the repairing for him/herself:

- <2729:1180:172> #163 ,like this God will give you all you need and in addition the CHRETIENY !!!!!
- <2740:1150:176> Sorry "CHRISTIANITY"

d) Sometimes the trouble spot is indicated but no repair is carried out. This may be due to the fact that it is not managed 'locally', i.e. repair in face to face conversation is normally carried out in the same or immediately subsequent turns:

- <3121:1182:172> Will you oay more fees?
- <3127:1181:176> #172 What is oay?

#### IV. Expressing Emotion

We would like to mention a feature observable in our data which has been the subject of debate when the affective factors involved in CMC are taken into account. Due to the lack of non-verbal cues in the interaction, participants have developed strategies to show their emotions using the most obvious means they have at hand – the keyboard. We will review the use of some of these and show how the medium need not be as impersonal as it has been attributed to be.

Exclamation marks are used very frequently and seem to 'lighten' the discourse, making it more immediate and spontaneous. They express both surprise and happiness and we have observed they are often used to mitigate turns expressing disagreement:

- <3297:1182:278> I don't think so!

Or denial

- <1177:486:84> #79 we have never said it!

Or they emphasise intentions:

- <1868:491:11> I'll do my very best!!! Nicola

Question marks are not only used for enquiry, but for expressing doubt and sarcasm

- <3942:1401:86> #48 pardon?

- <1726:491:93> ...and the screeet of sepllinge???

There are however fewer full stops than would be expected and commas are hardly used at all. Uppercase letters are used, as the very participants perceive them, to express shouting in the sense of anger, frustration, as in

- <3151:1198:191> PLEASE SAY TO WHO YOU ARE ANSWERING OTHERWISE WE WON T GET OUT OF HERE!!
- <3161:1189:195> OOOOOOOOOOOH DON'T SHOUT YOU ARE NOT ALONE AND CAN YOU TALK NICELY PLEASE ☺

They are also used to mitigate criticism as in

- <2232:491:134> OOOOOOHHHHH wee little northies....

Ellipsis points are very frequent in the teleconference, sometimes for indicating that the present turn is giving up the floor, or after certain expressions as in written language (hmm.../yeah...)

- <398:486:20>any volunteers? i already wrote the opening statement...
- <164:449:30> hmm... that's probably the best way to keep a secret!

Lastly we mention the phenomenon of emoticons. These are frequently used by the participants, and in many different contexts. They express agreement, solidarity, irony, amusement, sadness, etc.

- <4754:447:56> indeed ☺
- <1516:486:20> Irene... okay...that was our first step. I am proud of you☺
- <1908:491:26> Dear Northies, You really do agree with all statements, sounds kind of boring. ;-))
- <3531:1182:401> hehehe ☺
- <3505:1189:395> The best is having fewer students and for that it means more fees...:(

## CONCLUSIONS

Similar to the results presented in Blake [2], we have not found much evidence of negotiation as regards the strictly grammatical features of the discourse that the participants in the teleconference co-create. However, there is a great deal of interactional negotiation going on throughout, giving students practice with the management of meaning-making both as regards specific lexical items, and in the structural aspects of the genre it belongs to i.e. quasi-synchronous online discussions. The conference we have analysed is only part of a corpus of a total of 82 000 words which, with future study, we expect will also reveal interesting features of this fairly recent mode of communication, certainly as regards pragmatic aspects of CMC, issues related to gender and ethnicity, topic structure, and affective factors, to mention a few. Pending also is the research which compares different types of CMC, namely the language production in both asynchronous and synchronous modes.

Apart from the advantages we have mentioned from a linguistic point of view, especially considering the status of English as an international language used by, and between, more and more NNS in all parts of the globe, we feel that as

the opportunities become more widespread for involving students from all fields of Tertiary education in CMC, there can only be positive outcomes for establishing virtual links between different cultures, and for fomenting tolerance and negotiation as reasonable objectives to be aimed at in the real life scenario as well.

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