



Argentina Teachers of English to Speakers of Other Languages (C-443)

<http://www.artesol.org.ar>

Maipú 672 CABA

Personería Jurídica IGJ 464

ISSN 1853-7693

ARTESOL English for Specific Purposes Interest Section

ARTESOLESP Journal

A Refereed National Journal of Issues in Teaching English for Specific Purposes

Volume 1, No 1. May 2011

ARTESOLESP hopes to become a professional resource in the field and an opportunity for teachers to publish their research papers and teaching experiences.

This fully refereed journal written in English will be published online once a year.

Please see our [submission guidelines](#) for more information.

A Message from the Co-editors

At the request of Argentina TESOL, we gladly accepted the challenge of co-editing ARTESOL ESP Journal. We felt this was an opportunity for professional development since teachers of English in Argentina would have the chance to publish their research papers and their class experiences in the field of teaching English for Specific Purposes.

We know that our research work becomes part of the scientific community when it is shared through its publication. Besides, teachers who generally develop teaching strategies appropriate to different groups frequently work in isolation without having the opportunity of interacting with their colleagues.

We hope this publication will encourage ESP teachers to participate in coming issues.

Director: M.A. María Susana González

Editorial Board: María Claudia Albini, Mónica Patricia Gandolfo.

Academic Editorial Board: PhD. Susana Tuero (Universidad Nacional de Mar del Plata), M.A. Sonia Suárez Cepeda (Universidad Nacional de La Pampa), and PhD Ann Montemayor Borsinger (Universidad de Cuyo, Universidad de Río Negro)

Page 1

- Message from ESP IS Co-editors

Page 2 - 13

- Organization of the Journal

- María B. Domínguez, Laura L. Laurenti, Adriana B. Mallo, "Interaction: an Experience with ICTs in an Online ESP Course"

Page 14 - 28

- María Susana González, Mónica Gandolfo, Alicia Nerguizán, " Learning Connectors in Academic Texts: Some Insights into the Process"

Page 29 - 40

- Patricia Insirillo, Adriana Adem, "The Effects of Phonological plus Reading Exposure over Immediate Vocabulary Retention"

Page 40 - 41

- Submission Guidelines

Organization of ARTESOL ESP Journal

Contributions

Short articles published by prestigious ESP specialists.

Research Articles

This section is devoted to the publication of research articles that will be refereed by three renowned researchers.

Pedagogical experiences in ESP

This section includes the description of new experiences (strategies, techniques, course design) within ESP.

Reviews

This section includes reviews of books and journals published by Universities, Teacher Training Colleges and other institutions interested in the development of ESP courses or studies.

Those articles, pedagogical experiences or reviews that do not meet the requirements of this journal, will be reconsidered by the editorial board for publication on the ESP Web page.

Interaction: an Experience with ICTs in an Online ESP Course

María Belén Domínguez,

Laura Lucía Laurenti,

Adriana Beatriz Mallo

Universidad Nacional de San Luis

Abstract

This research article shows the results of an action research project which aimed at analyzing the different types of interaction in an online ESP course called Online Technical English taught at Facultad de Ingeniería y Ciencias Económico-sociales at Universidad Nacional de San Luis. Two questions guide this study: 1) Does the inclusion of forums, blogs and chats in an online Technical English course enhance the communication among its participants? and 2) Do teachers' interventions through the communicational tools in an online technical English course enhance communication among its participants? Results show that despite the implementation of varied technological tools and communicative strategies applied by teachers, interaction has not been as fluent and frequent as expected. However, an increase in communication instances can be observed in relation to results obtained from a pilot study. We expect our findings will generate changes to encourage interaction in future online courses.

Keywords: Interaction - ESP - ICTs - Reading comprehension - Online Learning

Introduction

Communication technologies have recently caused a revolution in all aspects of society, including education. The Information and Communication Technologies (ICTs) have impacted significantly on the educational environment, generating new and different forms of communication. This impact poses new challenges for both learners and teachers, who need to adapt to this revolution implementing innovative approaches that make use of technologies. Therefore, Educational Technology has the purpose of empowering teachers in the analysis, selection and use of new media to improve the teaching-learning process so as to fit the demands of modern times. The use of technology is likely to develop learner's autonomy, i.e. learners who are responsible for their own learning. To be updated and *equipped* with skills to overcome the challenges posed by technology in education, it is necessary to innovate in the

use of technological tools and procedures used to facilitate learning. Thus, more institutions are beginning to offer online courses to participants.

In the field of Distance Education, online teaching constitutes a new and innovative option which meets the needs of the digital era, by shortening distances, widening the scope of education and facilitating knowledge acquisition. Research on distance education has dealt with numerous factors, but one that has been and continues to be studied and even questioned is *interaction*, that is the way in which different participants interact in the teaching-learning process. Interaction is considered essential in the success of online participants (Kirby, 1999; Moore, 1989; Pauls, 2003; Sher, 2008), since it has been proved that "deep learning is promoted by active learner participation" (Newman, Webb, & Cochrane, 1995, cited in Beuchot Gonzalez de la Vega, 2000). While interacting, participants establish a socioaffective connection, feelings of empathy, and a sense of belonging (Garcia & Perera Rodriguez, 2007, p. 423). Then, active learning not only stimulates knowledge acquisition but also social development. However, interaction in distance education is not free from criticism. A major questioning is the lack of interaction that apparently characterizes this learning modality/ mode, and which might constitute a limitation on the learning process. Nevertheless, and due to the development and expansion of new technologies, several technological tools have been designed. These tools made/ have made online communication completely possible, thus potentiating/ enhancing interaction among participants in online courses.

This paper is the result of an Action Research project which involved a clear and repeated cycle of procedures for collecting and interpreting data. Following the purposes of action research proposed by Bailey (1998), this research work aims at seeking "local understanding" and "improvement in the context under study" (cited in Bailey 2001, p. 490). Action research is particularly relevant for classroom teachers because it helps them understand learning problems that may arise in their classes, and take actions to address them.

This research work purpose is to give answers to the problems encountered in our particular context and to contribute to practical support for teachers and researchers who aim at implementing changes in their online courses. However, its main objective is to analyze whether the changes in the online Technical English course to generate interaction prove to be successful. The research questions which guide this study are:

*Does the inclusion of forums, blogs and chats in an online Technical English course enhance the communication among its participants?

*Do teachers' interventions using communicational tools in an online Technical English course enhance the communication among its participants?

Literature Review / Theoretical Background

The learning theory which provides framework for this study is the Constructivist learning model. Constructivism is a learner-centered approach which promotes collaborative learning and social interaction, and develops learner autonomy. The role of the teacher is to facilitate and guide the participants in the learning process (Neo, 2005). Besides, constructivism envisages learning as a process in which learners construct new meanings from their own previous knowledge (Pauls, 2003).

Holmes, Tangney, FitzGibbon & Savage (2001) suggest participants construct their own knowledge by interacting with their environment and by actively collaborating with their peers, thus creating a real learning community. Knowledge is thus a product that is socially and culturally constructed and occurs when individuals are engaged in social activities. They call this approach "communal constructivism".

The constructivist approach emphasizes the importance of the learner being actively involved in both social and individual learning processes, unlike previous educational viewpoints where the responsibility to teach rested on the instructor and where the learner played a passive, receptive role. From the constructivist perspective, learners need to interact with peers, teachers and content to construct their knowledge. According to Jonassen (1995) "The constructivist sense of "active" learning is not listening and then mirroring the correct view of reality, but rather participating in and interacting with the surrounding environment in order to create a personal

view of the world" (p. 4). As previously stated, teachers play the role of facilitators who help learners in their understanding of the content while favoring the student's engagement in the online learning community. This implies that they should develop and apply different competencies so as to foster effective learning. Constructivism provides the framework for teachers to create "learner-centered, collaborative environments that support reflective and experiential processes" (Jonassen, 1995, p. 1). Therefore, instructors and learners are equally involved in learning through dynamic interaction processes.

Several authors have defined and classified the term interaction (Bruner, 1996; Gilbert & Moore, 1998; Shin, 2002; Gorsky & Caspi, 2005; Godwin, Thorpe & Richardson, 2008, Kiriakidis & Parker, 2008; Moore, 1989, 1993; Wagner, 1994). In this research work, the concept interaction refers to the interpersonal dialogue/communication but also to the exchange originated among participants regarding contents proposed given a learning situation. By making use of technological resources, participants, motivated by different reasons, interact reciprocally and dynamically among each other.

However, interaction among the participants involved is not directly related to the technological tools or the physical environment, but it implies listening and speaking, and a message sequence (García & Perera Rodríguez, 2007), being also necessary to have a reason to engage in a conversation.

A major criticism to distance education is that there is not enough interaction among participants in online courses. However, the incorporation of the new ICTs within constructivist pedagogy makes it possible to increase interaction. Learning within the constructivist model is particularly feasible in the virtual environment since it involves the active participation of the participants, who acquire their knowledge by taking full responsibility of their own learning. This continuous construction of meaning involves participants in the learning process to a greater extent and makes them participate more actively and feel more motivated, and become autonomous learner. Lander (1999, in Fahara, 2005) highlights the role of interaction among the factors that contribute to make online learning successful because it implies active participants' compromise.

Garrison (1989) identified interaction as a critical feature of the educational process. Interaction is necessary not only for learners to receive feedback about their progress but also to engage them in active learning. Research indicates that higher levels of interaction typically lead to more positive attitudes toward learning and greater satisfaction with it (Hackman & Walker, 1990). Norman (1993, in Jonassen, 1995) expresses that "when debating, analyzing what is correct, discussing and negotiating with others about the correct meaning of ideas and events, meaning is built" (p.11).

A pedagogical implication is that generating interaction requires teachers to develop skills and strategies in order to facilitate effective online interaction. In an attempt to adapt to this new learning environment, the teacher needs to focus on the development of generative strategies of interaction rather than on the mere use of technology, since the simple transference of traditional instruction to the virtual environment does not generate effective learning interaction (Tu & Corry, 2003).

In the area of distance education, Moore (1989) suggests three basic and essential ways in which interaction is possible: learner-content, learner-instructor and learner-learner.

- Learner-content interaction is the interaction between the learner and the content or subject of study. It allows participants to generate changes in their cognitive structure. Without this process, learning would be impossible.
- Learner-instructor interaction is the interaction between the learner and the expert who prepares the subject material, or the interaction with some other expert acting as instructor. This type of interaction is the process through which affective support is given to the student with the aim of motivating and stimulating him, keeping his interest in the content and, at the same time, guiding him towards autonomous and independent learning.
- Learner-learner interaction is the interaction between two learners, more than two and with or without the presence of an instructor. This kind of interaction is generally performed

to exchange information to solve problems and to generate collaborative work. It is also a fundamental tool of support and motivation.

Interaction can occur in two ways: synchronous, understood as the communication in "real time" (Collins & Berge, 1994, p. 3), and asynchronous, defined as the one which is "not limited by real time" (Lapadat, 2002, p.5).

Among the means that facilitate synchronous interaction are chats. As instruments of communication in a virtual environment, they are very profitable because they allow the exchange of ideas about different topics generating a space of collaborative work in real time. Although communication is not face to face, it has similar characteristics, especially in relation to its social nature.

On the other hand, asynchronous interaction has also numerous advantages. According to Mclsaac & Craft (2003) well planned and mediated discussions promote intellectual exchange of ideas. Similarly, García & Perera Rodríguez (2007) consider that asynchronous communication can promote reflection and development of ideas because participants have more time to think than in face to face communication, thus increasing both the number and the quality of participants' interventions. The forum, the e-mail and the blog are some tools that allow asynchronous interaction.

The forum allows both the reflection about different topics and participants' socialization. In this sense, it generates a sense of belonging to the class, undermining the belief of isolation usually associated to virtual education (Garcia & Perera Rodríguez, 2007, p. 423).

The electronic mail has a more specific purpose and allows a more personalized and private communication between the tutor and the student because they generally choose who to communicate with and why.

The blog is a collaborative space to express opinions and suggestions, and to search and share information in an interactive way with other users through texts, images, and links to other blogs, web pages and others. As in the case of the forum, it encourages the socialization among participants, thus creating a sense of belonging to the group, vital in online teaching.

Method

Context and Participants

The Online Technical English (OTE) course aims at developing reading comprehension skills in English. The course resulted from the research project called "The Process of Teaching and Learning English at University Level: Blended Learning and Distance Education" in which the authors of this research are participating. OTE is offered to engineering participants at the School of Engineering and Economic and Social Sciences, Universidad Nacional de San Luis. A group of 30 participants enrolled in this course and participated during the first weeks. The dropout rate was 54%, only fourteen participants finished the course, so the data collected correspond to those fourteen participants. This group is quite heterogeneous. Their age ranges from eighteen to twenty five, they attend different Engineering courses of study - Chemical, Electronic, Electromechanical, Agronomical and Industrial-, they are at different stages in their courses, and their proficiency level, either in English or in Spanish, is different depending on their previous educational background.

OTE 2008 Description

OTE was first launched in March and finished in December, 2008, as an option to participants who could not attend face-to-face classes due to different reasons. It was hosted on Moodle, which is a Course Management System and a free web application that educators can use to create effective online learning sites. This course was totally delivered on an online basis, except for the evaluation instances. It consisted of twenty three modules which contained theory and practice presented in different formats: editable documents, portable documents, and power point presentations. The texts included in the activities were authentic, pedagogically selected and sequenced according to linguistic complexity. There were different types of reading comprehension and grammar activities which were automatically corrected or corrected by the

tutor. Besides, the course main page contained information about the syllabus, tutorials to navigate the platform, online dictionaries, tables and charts, all of which aimed at helping the participants comprehend texts in English.

The communication tools implemented were forums, blogs, and e-mails. Their objective was to foster interaction among participants and to generate reflection, debate, negotiation of meaning, collaborative work, and socialization. Originally, the course had four forums of general use during the whole year. One was the *Technical Problems* forum in which the participants could find help about problems related to the use of technology. The *Tutor-learner* forum was a space aimed at generating interaction between participants and tutors, among participants themselves about academic matters. *Introducing Yourself* forum was compulsory and the participants were asked to introduce themselves, upload their photographs, share personal information and expectations, while knowing about each other, and feeling the *company* of the other participants. *Online Cafe* forum was a space created to foster communication among participants to socialize, share experiences, and talk about non-academic topics. It was originally implemented for communication among participants, which meant that tutors could not participate. The blog was designed to encourage participants to use another technological tool and to foster interaction among them. It consisted of two activities in which they had to read and comprehend a text in English, to give their opinions about a certain topic and to post a comment agreeing or disagreeing with their mates. E-mail communication was available between the tutor and the participants throughout the course as a familiar tool to send and receive activities and feedback, as well as to facilitate a more private communication.

Problem Situation

When OTE was first taught and analyzed, lack of interaction was evidenced. Following Moore's taxonomy of interaction, it was found that the learner-content type was the most recurrent. This had a strong impact on language acquisition since, without this type of interaction; the participants would not have acquired the necessary knowledge to develop reading comprehension skills. This is indicated by the fact that all the participants successfully finished the course. Learner-instructor interaction was less frequent than learner-content interaction. All the participants communicated with their tutors via e-mail, though in few opportunities. Most of the participants responded to enquiring or motivating messages sent by tutors. The tutors agreed that the course organization, in general, did not foster participation, especially through the forums. The third and least frequent type of interaction was the learner-learner type. There was not interaction among participants, except for a single instance through the Tutor-learner forum. The fact that no group activities were included in the course was a weakness in its design and it was a determining element for the lack of interaction. Some of the participants met face to face to work in group, evidencing their need to work collaboratively. The lack of interaction was a problem which evidently needed to be addressed. Teachers agreed that it was necessary to work on new strategies aiming at encouraging interaction among participants. Teachers faced the problem caused by the lack of interaction by implementing the actions which are the focus of the present action research.

Data Collection and Analysis

An action research project was undertaken with the objective of reflecting on our teaching practice in order to improve it by implementing new actions aiming at giving an answer to the problem of the lack of interaction. According to Kemmis and McTaggart (1988) an action research project is:

"...a form of self-reflective enquiry undertaken by participants in social situations in order to improve the rationality and justice of their own social or educational practices, as well as their understanding of these practices and the situations in which these practices are carried out" (cited in Bailey, 2001, p. 491).

The data analyzed in this study were collected from 1) the tracking of participants' participation available on the platform, specifically, the participants' messages posted in the forums and the participants' participation in the chats and the blog, 2) e-mails among participants and tutors and 3) an online questionnaire.

The participants' messages posted in the forums were tracked from the record provided by the Moodle platform. This enables the teacher to see the quantity of messages posted, the person who initiates and responds them, the content of the messages and the posting date. The instances of interaction in each forum were counted and categorized following two of the interaction types proposed by Moore (1993): learner-instructor and learner-learner interaction which were the two less frequent, thus considered object of analysis in this study. Two characteristics of the activities were regarded as variables affecting the amount of interaction in each forum: whether they were individual or group tasks, or whether the assignment explicitly asked for interaction or not. Besides, the participants' participation in the blog and the chat was tracked. The chat aimed at solving problems and at clearing up doubts before exams, thus interaction between tutors and learners was encouraged. The number of participations and of participants in the different chats were counted and interpreted in relation to the total number of participants.

The main purpose of the blog was to generate learner-learner interaction by asking the participants to engage in different types of activities. The number of participants and of participants' interventions in the blog were also counted and interpreted in relation to the total number of participants.

The e-mail was used as a private way of communication between participants and tutors. All the e-mails were collected from the tutors and were counted and categorized according to their content to see whether the topic was really confidential or could have been posted in one of the forums available on the platform. Tutors willingly shared all the e-mails that they had exchanged with their participants after gaining permission from them.

To triangulate data and collect information not obtained from these sources, a semi-structured questionnaire was used. It enquired about participants' perceptions on the benefits of interaction, on their performance as regards interaction with the tutors and their peers, and on the role of interaction in their learning process. The data from the questionnaire were categorized according to: a) learner-instructor interaction and learner-learner interaction and b) the participants' use of the forums and chat.

Research Steps

The analysis of interactions in OTE 2008 revealed that there was not enough interaction between participants and teachers, and there was even less among participants. Due to this problem, theory on the topic was analyzed, and actions were taken to increase interaction instances in OTE 2009, since interaction is considered a fundamental factor to engage participants in deep learning in an affective atmosphere. So, data were collected and analyzed to assess the effects of those actions. Finally, some implications of the findings were discussed and some actions were considered for future implementation. In order to generate more communication among the participants, the tutors implemented changes in the design of the course and also devised new strategies.

Changes in the Design of the Course

Many activities that pursued interchange among participants were incorporated, namely chats, a blog, and four forums. The discussion topics in these different communicational tools encompassed both academic and non-academic issues.

As regards chats, they were used mainly as a means of communication between tutor and student and were scheduled for the week previous to each mid-term exam. These chat sessions were created to give the participants the possibility of communicating with the tutor so as to remove certain doubts in relation to the course contents or to solve any difficulty they may have experienced in the tasks. They were optional for the participants.

As for forums, four new forums were added to the course: *First Steps*, *Group Work*, *Sharing Reflections*, and *Virtual Experience*. The participation in the first two was optional and in the other two compulsory. The underlying reason for this was to see whether this factor influenced their degree of participation. In two of the forums interaction was explicitly encouraged in the assignments. In the other two it was expected that the participants not only posted their personal opinions, but also exchanged ideas with others.

One blog was added to the course. The tasks included were compulsory and aimed at developing reading comprehension skills and at encouraging reflection on different topics. As it was already mentioned, the main objective of the blog was to generate interaction among learners. However, learner-instructor interaction was also expected since instructors' participation was necessary to provide and receive feedback, and to establish rapport with their participants.

Strategies to Generate and Sustain Communication throughout the Course

In order to promote students' participation, the tutors had a more active participation, especially in the forums. For instance, the teachers actively intervened in the Online Cafe forum which was originally created just for interaction among students. Tutors initiated conversation chains in this forum greeting participants on their birthdays, sending them "virtual" gifts, inviting them to take a "virtual" coffee, or just chatting about other non-academic issues. In the Tutor-learner forum, each tutor generated permanent interaction addressing the participants in a friendly way. Tutors sent messages about academic topics, such as feedback of certain tasks, explanations of a particular topic, clarification of the theory, suggestions about the use of learning strategies, reminders of important dates, and the like. Likewise, tutors' interaction in the rest of the forums corresponded with this dynamic; they showed permanent teacher's presence and constantly encouraged participants to keep on working and to progress further in their learning.

Results

This section shows the results of the actions implemented to increase interaction in the course. *Tracking the participants' performance from Moodle: Interaction instances per forum.* The following chart shows: 1) the instances of participants' and tutors' interventions per forum, 2) the types of interaction generated and 3) whether the assignments explicitly prompted participants to interact among themselves.

Interaction: Instances & types Forums	Teachers' interventions	Participants' interventions	Learner- learner interaction	Learner – instructor interaction	Interaction encouraged in Assignment
Tutor-learner	217	122			<input checked="" type="checkbox"/>

Technical Problems	4	4		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Online Café	67	15	<input checked="" type="checkbox"/> (4)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Introducing yourself	5	14			
Sharing Reflections	4	14		<input checked="" type="checkbox"/>	
First Steps	2	14	<input checked="" type="checkbox"/> (1)		<input checked="" type="checkbox"/>
Group work	23	32	<input checked="" type="checkbox"/> (25)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Virtual Experience	2	7			

Tutor-Learner Forum: out of a total of 339 messages posted in this forum, 64% was posted by tutors and 36% by learners. All the participants participated. However, many of them took part in few opportunities. None of these interventions generated learner-learner interaction. They just prompted learner-instructor interaction.

Technical Problems Forum: four messages were posted by participants asking for help in relation to technical problems, and four by tutors giving answers to participants. As expected, this forum generated only learner-instructor interaction.

Online Cafe Forum. Out of 82 messages posted in this forum, only 19% were posted by participants, while the remainder, 81%, was posted by tutors. The online café was widely used by tutors who continuously sought to trigger interaction. Although there was mainly learner-instructor interaction, four instances of the learner-learner type could be observed.

Introducing Yourself Forum. All the participants participated in this forum and 83% of the tutors introduced themselves. Although the participants were asked to upload their photos, for which they had a tutorial, only 26% complied with this task. This forum did not generate any type of interaction since the participants just did what they were asked to.

Sharing Reflections Forum. In this compulsory forum the participants were asked about their expectations in relation to the subject and the characteristics of the course. Everybody participated in this forum. There were four teachers' comments which generated learner-instructor interaction. However, no interchange of opinions or ideas among learners could be observed.

First Step Forum: in this forum the participants were asked to express their opinion about the topics learned during the week, and were asked to interact with their partners in this regard. Everybody participated, but neither of them interacted with peers, so no learner-learner interaction was generated.

Group Work Forum: the participants used this forum to discuss about a topic, solve a task and upload one final document. In each of the groups, one student initiated the conversation by posting a message which encouraged their peers to get organized. Twelve participants completed the activity. Thirty two messages were posted by the participants, 78% was among learners. This generated learner-learner interaction. The remainder 22% was addressed to tutors. However, tutors sent twenty three messages to answer doubts, to clarify instructions or to motivate the participants to work.

Virtual Experience Forum. Based on their experience in this course, participants were asked to express their opinion in relation to their work on the platform and about the aspects they liked or did not like. This forum was not compulsory and only 50% of the students participated.

Tracking the Participants' Performance from Moodle: Interaction in the Chat

Participation in the chat was optional. It was scheduled for the week previous to each exam. There were three chat sessions in the year. These sessions were daily open for about six hours during the two days before the exam.

Results show that just four students participated in the chats. One of them participated both in the first and second session, while the other three in one of the three sessions. The only type of interaction generated through the chat was learner-instructor, since participants did not communicate with their peers to solve doubts.

Tracking the Participants' Performance from Moodle: Interaction in the Blogs

The first activity in the blog was joined by 33% of the students. The task was performed successfully although there was no interaction. For the second activity, 26% fulfilled the task, posting their comments and interacting with their peers.

Interaction via E-mail

There were 78 electronic mails, 60 % of which were initiated by participants. Out of this percentage, 18% was sent at the beginning of the course to ask for help solve problems to access the platform. The remaining 42% e-mails were sent to contact the tutor about personal problems affecting their performance in the course, specific requests or other private issues. In relation to the e-mails sent by tutors, they were delivered mainly to answer participants' requirements, to encourage them to accomplish their tasks on time, and to inform about private issues related to their academic performance.

Participants' Perceptions: Interaction According to the Questionnaire

The questionnaire was completed by fourteen participants at the end of the course.

- *Learner-instructor Interaction.* In relation to this type of interaction, learners were asked whether interaction was academically or socially important for their learning process, and up to what extent the amount of interaction generated had met their needs. Interaction with tutors was important to clarify doubts, to guide students, to solve problems and to help them understand content according to 85% of the participants. Only 15% of the students expressed that interaction was not important since they considered it unnecessary. Interaction with tutors was important to make students feel accompanied and part of the group, as well as encouraged to continue by 57% of the learners. The remaining 43% expressed that they did not interact with tutors because they did not have enough time and they did not consider it necessary either. Finally, 71% considered interaction with tutors was adequate for their progress in the course because they felt their tutors' permanent presence and concern for their learning. The remaining 29% of the participants said that interaction with tutors was not enough but they did not give any reason to support their opinion.
- *Learner-learner Interaction.* Participants were asked whether they had contacted their peers and how, whether interaction had helped them in their learning and socialization,

whether the amount of interaction generated had met their needs and they were asked to account for their reply. While 64% of the participants stated that they had not contacted their peers, 28% said that they had made contact via e-mail, and 8% communicated through the forums. As regards the role of interaction in their learning, 50% did not answer but 35% of participants stated that this type of interaction helped them because they could consult each other and solve doubts, 15% did not consider it useful for their learning. In answering the question about whether they felt accompanied, just 50% gave an answer; 28% said interaction had been useful, while 22% said it had been useless and suggested more group activities. In relation to the amount of interaction, 36% of the students did not express any opinion, 28% considered that the amount of interaction had been enough, while 35% believed it unnecessary.

- *Participants' Use of the Forums and Chat.* Out of 56% of the participants who answered, 28% said they had used the forums to clarify doubts and to solve problems faster. The rest of them stated they had not used the forums because of the following reasons: it was considered not necessary, they did not have enough time or they found them difficult to use.

Discussion

As the results of the data analysis demonstrate, there were several instances of interaction along the course especially between tutors and participants. However, there was not much interaction among participants themselves though tutors' efforts to foster interaction were continuous along the course.

As for interaction in the forums, it can be said that the learner-instructor type of interaction was the most recurrent. The Tutor- Learner forum - one of the three permanent forums throughout the course - was, as expected, the one in which participants took part more avidly along the course. It was considered a place to interact with their tutors, solve their doubts and to socialize. Even though not all the participants contributed as much as it was expected, the questionnaire revealed they all regarded the forums as a channel of communication with tutors. It could be observed that students tended to participate in the forums after the tutor had sent them a message. Participation mostly relied on the tutor's intervention rather than on the students own will or need. In the questionnaire, most of the participants highlighted the tutors' role in their learning process, feeling the teacher's presence appreciating their support. In the Online Café Forum, there were few instances of students' participations although there were many tutors' interventions. Contrary to the teachers' expectations, participants did not benefit from this forum which was specially designed for them to share non-academic issues.

Regarding chats, just a few students participated in the chat sessions scheduled for the weeks previous to the exams. Those who did not participate claimed that the time scheduled for the sessions was not convenient; that they had not had enough time, that they preferred the e-mail to consult doubts or that it was not necessary for them. This type of interaction also took place by e-mail which was used by students and tutors to communicate private academic matters as we had expected.

Though learner-instructor communication was the most frequent, learner-learner communication also took place in the course, especially in the Group Work Forum. However, this type of interaction was scarce. As for the question about group activity, 50% of the participants' responses showed it had not been beneficial for them. One of the reasons they gave was that it was "not necessary" for them to learn and understand the content of the units since they could succeed in their understanding just by reading the theory and performing the activities proposed. The other reason was that this type of task was not "easy" to perform since they should arrange their schedule and coordinate with their peers, especially with those who were not responsible enough. Even though it was expected that this type of interaction took place in the other forums, this was not the case. In fact, in the Online Café Forum there were only four instances of learner-learner interaction. In the other three new forums - First Steps, Virtual Experience, and Sharing

Reflections - the same pattern was repeated, showing no interaction among peers, except for one instance in the First Step Forum.

Moreover, some of the participants revealed in the questionnaire that they had interacted with their peers to solve problems and doubts via e-mail, something that was completely unknown by the tutors. This evidenced their need of contact with their peers, which was also expressed in the questionnaire.

In relation to the activities in the blog, we can conclude that the nature of the tasks influenced the amount of interaction in each case. There was interaction only in the second activity, where it was explicitly encouraged.

In sum, it can be said that the instances of interaction were more numerous than those of the year before. Clearly, the amount grew as the number of forums increased and the task assignments aiming at students' participation multiplied. It is important to mention that this helped some participants feel "accompanied" in their learning process, as revealed in their answers to the questionnaire. Finally, it is important to highlight that, as stated in the questionnaire, lack of time seems to be the main reason why students did not participate more actively in the forums and chats. In fact, some of the participants who took the course stated that it was not easy for them to perform all the tasks in time.

Conclusions

OTE 2009 showed more instances of interaction in comparison with that evidenced in the previous year. As an answer to the two questions that guided this action research project, we may conclude that the incorporation of new strategies to foster interaction and the implementation of the new tools mentioned in this study generated more communication among the participants, especially of the learner-instructor type. However, the learner-learner type of interaction remained limited.

More instances of interaction could be observed in those forums in which the assignment explicitly demanded it. However, this did not happen in every case. There were few instances of interaction in the First Steps Forum. The data analyzed proved that the variables that limited students' participation in the activities proposed, independently of its nature – optional or compulsory- were lack of time, limited access to the Internet and poor experience in online learning. Another aspect that may have influenced the amount of interaction among participants is the nature of the course itself, that is, the subject Technical English does not lead to much debate as a course on social issues could. However, these are assumptions that need to be investigated. A final variable was lack of necessity. The participants revealed that the role of the tutors as well as the contents on the platform were enough for their learning process. They did not need to interact with their peers on a frequent basis.

Although the tracking on the platform showed poor interaction among participants, it was surprising to know through the questionnaire that some of them kept communicated via e-mail.

After analyzing the results of this action research we conclude that the changes incorporated in OTE 2009 were effective since the inclusion of both new tools and teaching strategies helped to increase communication among students. Though participation along the course was not as much as it had been expected, it proved to be sufficient for the participants to understand the contents of the course and finally complete it.

Further research on how interaction can be fostered in online reading comprehension courses for EFL students is recommended since a fluid and constant communication is essential to help improve learning and reduce the isolation attributed to distance education. Moreover, it can be assumed that an increased interaction may reduce dropout rates in online courses, although this is an assumption that needs to be tested.

A new step to follow in this action research project can be to incorporate weekly chats as suggested by one of the participants in the questionnaire so as to give students the possibility of communicating with their tutors in a synchronous way. Creating new types of activities to involve participants more actively in interaction can be considered a goal for next year. Peer reviewing, problem solving and other tasks that could foster interaction through collaborative work can be designed and implemented.

The inclusion of forums, blogs and chats and the teachers' attitude and involvement in an online course are fundamental factors to be taken into account in the design and implementation of online courses. All these factors contribute to enhance communication among participants, to increase their commitment, responsibility and enthusiasm and therefore they may improve their learning process.

Maria Belén Domínguez teaches ESP for engineering undergraduates at the School of Engineering and Economic and Social Sciences, Universidad Nacional de San Luis, Argentina. She is a member of the research team working on the project "The Process of Teaching and Learning English at University Level: Blended Learning and Distance Learning". She is online tutor and designer of the Technical English online course. mbdomin@fices.unsl.edu.ar

Laura Lucía Laurenti teaches ESP for engineering undergraduates at the School of Engineering and Economic and Social Sciences, Universidad Nacional de San Luis and EFL at Instituto de Formación Docente Continua de San Luis, Argentina. She is a member of the research team working on the project "The Process of Teaching and Learning English at University Level: Blended Learning and Distance Learning". She is online tutor and designer of the Technical English online course. llorent@fices.unsl.edu.ar

Adriana Beatriz Mallo teaches ESP for engineering undergraduates at the School of Engineering and Economic and Social Sciences, Universidad Nacional de San Luis, Argentina. She is a member of the research team working on the project "The Process of Teaching and Learning English at University Level: Blended Learning and Distance Learning". She has been online tutor and designer of several online courses for nine years. amallo@fices.unsl.edu.ar

References

- *Bailey, K. (2001). Action research, teacher research and classroom research in language teaching. In Celce-Murcia, M. (Ed.), *Teaching English as a Second or Foreign Language* (3rd edition). Boston, MA: Heinle & Heinle.
- *Beuchot Gonzalez de la Vega, (2000). *Interacción y Contenido Interpersonal en Foros Electrónicos de Discusión*. *EGE*, 3, 19-37
- *Bruner, J. (1966). *Toward a Theory of Instruction*. Cambridge, MA: Harvard University Press.
- *Collins, M. & Berge, Z. (1994). Guiding Design Principles for Interactive Teleconferencing. Available online:
- *Fahara, M., Casarini Ratto, M. López Rodríguez, N. (2005). Interactividad en los cursos en línea, alumno alumno, profesor alumno. *EGE*, 6 (12), 19-26.
- *García, C. & Perera Rodríguez, V. (2007). Comunicación y aprendizaje electrónico: la interacción didáctica en los nuevos espacios virtuales de aprendizaje. *Revista de Educación*, (343) 318-429.
- *Garrison, D. R. (1989). *Understanding distance education. A framework for the future*. Londres: Routledge.
- *Gilbert, L. & Moore, D. (1998). Building interactivity into web courses: Tools for social and instructional interaction. *Educational Technology*, 38(3), 8-21.
- *Godwin, S., Thorpe, M. & Richardson, J. (2008). The impact of computer-mediated interaction on distance learning. *British Journal of Educational Technology*, 39(1), 52-70
- *Gorsky, P. & Caspi, A. (2005). Dialogue: a theoretical framework for distance education instructional systems. *British Journal of Educational Technology*, 36(2), 137-144.
- *Hackman, M & Walker, K. (1990). Instructional communication in the televised classroom: the effects of system design and teacher immediacy on student learning and satisfaction. *Communication in Education*, 39, 196-206.
- *Holmes, B., Tangney, B., FitzGibbon, A., Savage, T., & Mehan, S. (2001). Communal Constructivism: Participants constructing learning for as well as with others. In J. Price et al. (Eds.), *Proceedings of Society for Information Technology and Teacher Education International Conference 2001* (pp. 3114-3119). Chesapeake, VA: AACE. Retrieved from <http://www.editlib.org/p/17346>. EdITLib Education & Information Technology Digital Library. <http://emoderators.com/papers/augusta.html>
- *Jonassen, D., Davidson, M., Collins, M., Campbell, J., & Haag, B. B. (1995). Constructivism and computer-mediated communication in distance education. *The American Journal of Distance Education*, 9(2), 7-26
- *Kirby, E. (1999). Building Interaction in Online and Distance Education Courses. In J. Price et al. (Eds.), *Proceedings of Society for Information Technology and Teacher Education International Conference 1999*

-
- (pp. 199-205). Chesapeake, VA: AACE. Retrieved from <http://www.editlib.org/p/7941>.
- *Kiriakidis, P. & Parker, A. (2008). Faculty and Learner Interaction in Online Courses. *International Journal of Instructional Technology & Distance Learning*, 5(11). Retrieved from www.itdl.org/Journal/Nov_08/article03.htm.
- *Lapadat, J. (2002). Written Interaction: A Key Component in Online Learning. *Journal of Computer-Mediated Communication* 7 (4), 0-0 doi:10.1111/j.1083-6101.2002.tb00158.x
- *McIsaac, M. & Craft, E. (2003). Faculty development: Using Distance Education Effectively in the Classroom. In Corry, M. & Tu, C. (Eds.) (2003) *Distance Education: What Works Well?* Haworth Press. *MERLOT Journal of Online Learning and Teaching*, (4) 4, 446-458.
- *Moore, M. (1989). *Three types of interaction*. The American Journal of Distance Education, 3, 1-7.
- *Moore, M. (1993). Theory of transactional distance. In Keegan (Ed.) *Theoretical principles of distance education*, 23-38. New York: Routledge.
- *Mortera-Gutierrez, F. (2003). Interactions used by Instructors in e-learning environments. *EGE* (10), 9-15.
- *Neo, M. (2005). Engaging participants in group-based co-operative learning- A Malaysian Perspective. *Educational Technology & Society*, 8 (4), 220-232.
- *Pauls, T.S. (2003). *The importance of interaction in online courses*. Paper presented at the Ohio Learning Network: The convergence of learning and technology, March 3-4, 2003.
- *Sher, A. (2008). Assessing and Comparing Interaction Dynamics, Student Learning, and Satisfaction within Web-based Online Learning Programs.
- *Shin, N. (2002). Beyond interaction: the relational construct of 'transactional presence'. *Open Learning*, 17, 121-137.
- *Tu, C. & Corry, M. (2003). Building active online interaction via a collaborative learning community. In Corry, M. & Tu, C. (Eds.) (2003) *Distance Education: What Works Well?* Haworth Press.
- *Wagner, E. D. (1994). In support of a functional definition of interaction. *The American Journal of Distance Education*, 8(2) 6-29.

Learning Connectors in Academic Texts: Some Insights into the Process

María Susana González, Mónica Gandolfo, Alicia Nerguizian
Universidad de Buenos Aires

This paper offers some insights into difficulties experienced by our undergraduate students while reading academic texts involving the processing of causal, consecutive and contrastive connectors as well as into the acquisition of these connectors in connection with the application of different kinds of pedagogical intervention. Undergraduate students with basic knowledge of English have to read comprehensively research articles written in English about topics connected with their fields of study. In this context, one of our main concerns has been the early learning of these connectors. The analysis of the data obtained from a series of tests administered during one term confirms earlier findings about the difficulty involved in learning these connectors both as new lexemes for known word-forms or as new lexical item. Besides, the processing difficulties of these units seem to be relatively independent of general language level.

Key words:

connectors, reading, processing difficulties, acquisition, pedagogical intervention.

1. Introduction

The aim of this paper is to present the results of a series of tests administered in three regular reading comprehension courses at the School of Philosophy and Letters to gain greater knowledge about the processing difficulties of a selection of causal, consecutive, and contrastive connectors and about their acquisition as a result of the application of different instances of pedagogical intervention, mainly the use of selective attention, recognition, and interpretation tasks.

1.1 The problem of reading

The interaction of several variables affects the nature of reading in a foreign language: reader variables, text variables, and variables that depend on the context of situation. Reader variables are connected with the nature of knowledge a reader brings to the reading situation: background knowledge, cultural knowledge, subject or topic knowledge, linguistic knowledge of the target language, and metalinguistic knowledge. Other variables are readers' age, their level of education, and the development of their reading abilities. Text variables are related to the impact of linguistic variables on the process of text comprehension: text content, text type and genre, text organization, complexity of syntax and lexis, typographical features, non-verbal information, and the medium of text presentation (Alderson, 2000). Elizabeth Bernhardt (1991) highlights the contribution of first language reading ability and the distance between learners' mother tongue and their second or foreign language as factors to be considered

As part of a cognitive strategy, when we begin to read, we make a number of initial decisions which are related to our purposes for reading. Readers may search for simple or for specific information to learn from texts in order to integrate new information with their previous schemas. If they need to write about a topic, they may aim at searching for information needed for this task. Another possible decision is to read to critique texts. (Grabe and Stoller, 2002).

Recent research in the area of reading comprehension has generated a large number of models from different theoretical frameworks to explain the process of reading in the mother tongue. These models may be grouped as: a) cognitive models such as Adams' (1994) or Kintsch's (1988, 1998); b) interactive models, for example Rumelhart's (1994), and c) constructivist models such as Goodman's.

The influence of psycholinguistics on EFL/ESL reading can be found in Goodman's transactional socio psycholinguistic model of reading in a first language which views the

construction of meaning as an on-going cyclical process of sampling from the input text, predicting, testing and confirming or revising those predictions (Goodman, 1994). Within this theoretical framework text comprehension involves an interaction of text-based processes and knowledge-based processes. The latter is related to the reader's existent background or schemata. According to these views the reading comprehension process is top-down and expectation-based. However, when expectations are not met, bottom-up processing begins.

As regards reading in a foreign language, Bernhardt (2005) considers that the reading experience in the mother tongue accounts for 20% of the processing, the knowledge of the foreign language 30% and the 50% depends on other factors such as strategy use, culture, motivation, interest, etc. According to this author, the concept of compensatory mechanisms is useful to explain how the reader can achieve a better conceptualization of the reading process in L2 by accessing different knowledge sources when the others do not exist or are inadequate. Bernhardt's concept of compensatory mechanism and Goodman's top-down and expectation based conceptualization of the reading process are particularly adequate as a frame of reference for the model designed in the School of Philosophy and Letters (Universidad de Buenos Aires) in which undergraduate students with a basic knowledge of the English language¹ are expected to read research articles written in English after three terms of reading instruction. The model follows three steps: first, students perform pre-reading tasks in order to predict the main concepts dealt with in the text; secondly the hypotheses they formulate are confirmed or disconfirmed when they read the text in detail; finally, they reformulate the text through main idea writing, paragraph conceptualization and outlining (Spath Hirschmann, 2000). While reading in detail, students should be able to distinguish among different types of information such as factual and non-factual, relevant and irrelevant, explicit and implicit, ideas, examples and opinions as well as draw inferences and conclusions, deduce unknown words, and understand graphic representations and text organization (Jordan, 1997). The teacher acts as a facilitator and helps students to use their previous knowledge (formal and content schemata) to compensate for their restricted knowledge of the English language when they construct the meaning of a text.

1.2 Reading and vocabulary development

Many researchers consider that school children appear to increase their mother tongue vocabulary by thousands of words per year through incidental learning from written context. It is considered that learning from context is a cumulative process by means of which meaning and knowledge of a form are gradually enriched and strengthened. Nagy, Herman, and Anderson (1987) designed an experimental research which provided support for this hypothesis and concluded that the learning of vocabulary is gradual and its strength lies in its long-term cumulative effect. Hulstijn (1997) also supports the idea of incidental learning of lexis and grammar while reading. Nation and Coady (1988) consider that redundancy and information provided by the text facilitate vocabulary learning.

Some L2 vocabulary researchers recognize the importance of incidental vocabulary development but also highlight its shortcomings. Many unknown words are ignored by the reader (Fraser, 1999; Paribakht & Wesche, 1999), and meaning inference from context often leads to wrong guesses. Nation (2001) considers that even if learners are able to infer the correct meaning of a word from context, this correct guess does not mean they have learnt a new word. This may occur because once the communicative need has been satisfied the learner does not undertake further mental processing. Another shortcoming of incidental vocabulary learning is the very low rate of retention of new words from one of several exposures (Huckin & Coady, 1997).

Ellis (1994) remarks that in an educational context students are not able to learn vocabulary as a native speaker does because there is not enough time to achieve this purpose

¹ Basic knowledge of the English language means elementary or pre-intermediate.

even under optimal conditions such as having an effective memory or knowing how to use appropriate strategies. Fraser (1999) suggests that learning through incidental exposure is most effective when students develop strategies to take advantage of this exposure. Some useful strategies are the use of productive affixes, awareness of word families, and knowing when and how to use adequate contextual cues.

Paribakht and Wesche (1996) developed a typology of text based vocabulary exercises that involves 5 cognitive strategies: 1) *selective attention* by means of which students' attention is directed to target words by underlying, boldfacing, circling; 2) *recognition* or association of the written form with one of its meanings; 3) *manipulation* which requires structural analysis of a word to rearrange given elements; 4) *interpretation* which involves semantic and syntactic analysis; 5) *production* which requires retrieval and production of target words in appropriate novel contexts. These authors conclude that although reading for meaning appears to produce significant results in vocabulary learning, such reading supplemented with specific vocabulary exercises produces greater gains. This suggests that more focused instruction is desirable when the learning period is limited and specific vocabulary outcomes are sought. The subjects of their research are students who need the foreign language for academic purposes and who have a limited period of time to develop strategies that may allow them to read academic texts². Paribakht and Wesche (2000) examine the responses of University students to the five different types of text based vocabulary exercises they designed in 1996. The findings provide insight into the advantages of using text- based vocabulary exercises together with a reading text as opposed to using multiple reading texts for the learning of particular words and their lexical features.

1.2.1 The research context

The School of Philosophy and Letters offers reading comprehension courses for College students who have an elementary or intermediate level of English as they are frequently required to read authentic academic texts in that language. Those with a higher level may sit for an independent exam or join the Distance Learning Programme. In the regular courses, training in reading strategies is aimed at facilitating our students' process of learning basic knowledge of the grammar and specific vocabulary required to read academic texts in three semesters. Teachers are also interested in teaching the basic characteristics of this text type to facilitate their approach to this kind of material.

Entrance to these courses requires no pre-requisite. As a result, the groups of students form a heterogeneous group of learners with different linguistic background, reading abilities, and at different levels in their course of studies at the University.

Previous acquaintance with content specific vocabulary from their fields of studies facilitates reading of academic texts, especially if there is a high rate of cognates. However, *general academic vocabulary*³ such as *approach, issue, assumption, etc.* is more difficult to be acquired. In these texts, researchers want to persuade an audience of expert readers of their contributions to their field of interest. To achieve this, they compare or contrast their findings with previous contributions of other researchers to present their achievements or to reject paradigms, finally, conclusions are presented. Non-cognate negatives and pseudonegatives⁴ which are more frequently used in passages where researchers reject other positions or ideas also hamper reading progress (González, 2008). The use of connectors may help to clarify contrasts,

² Zimmerman (1997) suggests combining periods of extensive reading and reading for pleasure with periods of explicit instruction in order to enlarge specific vocabulary learning.

³ Academic vocabulary is the corpus of words that is used across different fields in academic texts.

⁴ We define pseudonegatives as those units which do not carry affixes that may alert the reader about the negative connotation of this vocabulary: *neglect, reject, denial, failure, lack, reluctance*. Negatives are units which carry negative affixes that help the reader infer their negative connotation: *endless, unsatisfactory, non-intellectual, involuntary*.

comparisons, and conclusions, so reading is facilitated if these forms are known. However, these units are not easily acquired through incidental reading and in our courses students do not seem to benefit from the kind of instruction they receive to facilitate their learning.

Learning lexical items is a crucial issue for successful academic reading. Several linguists have proposed different components to measure word knowledge at a given time. Interestingly, Paribakht and Wesche (1993) have presented an alternative developmental approach. They proposed a Vocabulary Knowledge Scale to find out how much knowledge students acquired during a one-semester university ESL programme. In this study the learners reported their knowledge of the target words in response to the following statements:

- 1- I have never seen this word
- 2- I have seen this word before but I don't know what it means
- 3- I have seen this word before and I think it means(synonym or translation)
- 4- I know this word. It means..... (synonym or translation)
- 5- I can use this word in a sentence.

While teaching academic reading strategies, we have always been concerned about the early learning of the distinction between contrastive and conclusive connectors because not attending to their differences can result, if coupled with the almost inevitably faulty processing of texts due to linguistic restrictions, in serious misunderstanding.

2. Methodology

The data for this study was collected at the School of Philosophy and Letters of the University of Buenos Aires during the last term of 2007 and the first one of 2008. Thirty (30) students who were attending the First Level, thirty six (36) from the Second Level, and forty three (43) from the Third Level performed three tasks in different moments during the term. One part of the sample was collected during the last term of 2007 and the rest during the first term of 2008. During the second class of each term, students were asked to fill a short survey on personal information regarding their English proficiency, course of studies, and information on whether they had taken the regular courses in the previous level, whether they had passed the independent exam or had attended the Distance Learning Programme. This information was necessary to control variables in the analysis of the results due to the heterogeneity of our groups of students and the complexity of our object of study. (Appendix 1)

As a second step, students were asked to provide an equivalent in Spanish for a list of connectors and distractors included on a list (Appendix 1) As our aim was to find out which connectors were recognized as such without contextual support, we selected three pairs of them: consecutive (*so, hence*), causal (*because, since*), and adversative connectors (*but, nevertheless*). After the students had fulfilled this task, we divided the selected connectors into two groups. In the first one the connectors that had been paraphrased correctly by most of the students were considered (*so, because y but*) and in the second group we included the three that most of the students did not know (*hence, since, nevertheless*). The following table shows the results of the selected connectors paraphrase:

Students	Connector	Correct Spanish Paraphrasing		Incorrect Spanish Paraphrasing	
		Count	Percentage	Count	Percentage
109	So	70	64.22%	39	35.78%
109	But	104	95.41%	5	4.59%
109	Because	104	95.41%	5	4.59%
109	Nevertheless	17	15.60%	92	84.40%
109	Hence	2	1.83%	107	98.17%
109	Since (causal)	2	1.83%	107	98.17%

Table 1: Connector Paraphrase.

For the task carried out in the third class, we selected three short paragraphs from research articles and deleted the connectors *so*, *but*, and *because* so that the two ideas joined by them appeared as simple sentences. Students were asked to perform three tasks: 1) paraphrase in Spanish the six pairs of sentences, 2) indicate the type of connection they established- cause, consequence or contrast- and 3) join each pair of sentences with a connector chosen from a list of three (*but*, *because*, *so*) (Appendix 2 and 3).

The following task was performed three weeks later. Students were asked to paraphrase three pairs of sentences in which the connectors *nevertheless*, *hence*, *since* were used and to indicate what type of connection they established (Appendix 4). In this case, we decided to design another type of test because most of the students had not been able to provide a Spanish equivalent for these connectors so the aim was to check whether they were able to recognize the relationship among the concepts despite their lack of knowledge of the meaning of the connectors.

3. Results and discussion

3.1 The case of so, but, and because

3.1.1 Comprehension difficulties

The analysis of the Spanish paraphrasing of the clauses joined by the connectors showed that only 18.18% of the students (eighteen students) produced incoherent paraphrasing and 81.82% were able to perform a correct paraphrasing. Therefore we concluded that these clauses were not difficult to understand for most of them. Due to the fact that most of the students had an elementary or an intermediate knowledge of the English language, we found it necessary to include this task to check comprehension.

According to the information provided by our students as regards the number of years they had studied English and the kind of institution where they had studied at, the group was divided broadly into three subgroups: elementary, intermediate and advanced. Only three students were placed in the advanced level, therefore they were not considered in this analysis.

Students who had sat for independent exams or who had attended the Distance Learning Program were excluded from the analysis, so the performance of students who had attended the regular courses of the previous level was considered for our purposes. Therefore, the final number of students who participated in this experiment was: 30 (thirty) students from the First Level, 27 (twenty seven) from Second Level and 33 (thirty three) from Third Level.

3.2 Recognition of the relations established by so, but and because

A table was designed to compare the performance of students with an elementary and an intermediate level of the English language with respect to their possibility to recognize the relation the connectors establish. Students were divided in two groups: those who were able to paraphrase the connectors out of co-text and those who were not. In addition, within these groups we distinguished the number of students who had used the connectors correctly and incorrectly. For the purpose of our analysis we only considered those groups in which it was possible to compare the performance of students with elementary and intermediate level of knowledge of the English language. In the three courses, students who were able to give a correct Spanish equivalent for the connectors performed better than those who were not able to paraphrase them. Although the sample is smaller in the case of students with an intermediate level of English knowledge, the results show that in the First and Third levels, a higher level of knowledge of the English language does not seem to facilitate the recognition of the relation the connectors establish. However, in the second level there are significant differences in favor of those students who have an intermediate knowledge of English. Therefore, the processing

difficulty of connectors seems to be relatively independent of general language level in this corpus.

The following tables show the results:

<i>Connectors</i>	<i>Knowledge of English</i>	<i>Number of students</i>	<i>Correct use of the connector</i>		<i>Incorrect use</i>	
So	Elementary	13	9	69.23%	4	30.77%
	Intermediate	6	5	83.33%	1	16.67%
But	Elementary	21	14	66.67%	7	33.33%
	Intermediate	5	4	80%	1	20%
Because	Elementary	24	14	58.33%	10	41.67%
	Intermediate	6	3	50%	3	50%

Table 2. First Level students who provided a correct paraphrasing in Spanish of the connectors **so**, **but**, and **because** out of co-text.

<i>Connectors</i>	<i>Knowledge of English</i>	<i>Number of students</i>	<i>Correct use of the connector</i>		<i>Incorrect use</i>	
So	Elementary	11	3	27.27%	8	72.73%
	Intermediate	0	0	0%	0	0%
But	Elementary	3	1	33.33%	2	66.67%
	Intermediate	1	0	0%	1	100%

Table 3. First Level students who did not provide a correct paraphrasing in Spanish of the connectors **so**, and **but** out of co-text.⁵

<i>Connectors</i>	<i>Knowledge of English</i>	<i>Number of students</i>	<i>Correct use of the connector</i>		<i>Incorrect use</i>	
So	Elementary	15	9	60%	6	40%
	Intermediate	5	5	100%	0	0%
But	Elementary	21	13	61.91%	8	38.09%
	Intermediate	6	6	100%	0	0%
Because	Elementary	19	7	36.84%	12	63.16%
	Intermediate	7	6	85.72%	1	14.28%

Table 4. Second Level students who provided a correct paraphrasing in Spanish of the connectors **so**, **but**, and **because** out of co-text.

<i>Connectors</i>	<i>Knowledge of English</i>	<i>Number of students</i>	<i>Correct use of the connector</i>		<i>Incorrect use</i>	
So	Elementary	7	1	14.28%	6	85.72%
	Intermediate	0	0	0%	0	0%
Because	Elementary	1	0	0%	1	100%
	Intermediate	0	0	0%	0	0%

Table 5. Second Level students who did not provide a correct paraphrasing in Spanish of the connectors **so**, and **because** out of co-text.⁶

<i>Connectors</i>	<i>Knowledge of English</i>	<i>Number of students</i>	<i>Correct use of the connector</i>		<i>Incorrect use</i>	
So	Elementary	19	15	78.95%	4	21.05%
	Intermediate	2	1	50%	1	50%
But	Elementary	30	22	73.33%	8	26.67%
	Intermediate	2	2	100%	0	0%
Because	Elementary	29	19	65.52%	10	34.48%
	Intermediate	2	0	0%	2	100%

⁵ As all the students were able to give a correct Spanish equivalent for the connector **because**, it was not included in this table.

⁶ As all the students were able to provide a correct Spanish equivalent for **but**, it was not included in this table.

Table 6: Third Level students who provided a correct paraphrasing in Spanish of the connectors **so**, **but**, and **because** out of co-text.

<i>Connectors</i>	<i>Knowledge of English</i>	<i>Number of students</i>	<i>Correct use of the connector</i>		<i>Incorrect use</i>	
So	Elementary	12	8	60%	4	40%
	Intermediate	0	0	0%	0	0%
But	Elementary	1	0	0%	1	100%
	Intermediate	0	0	0%	0	0%
Because	Elementary	2	1	50%	1	50%
	Intermediate	0	0	0%	0	0%

Table 7: Third Level students who did not provide a correct paraphrasing in Spanish of the connectors **so**, **but**, and **because** out of co-text.

3.3 The case of *nevertheless*, *hence*, and *since*

To analyze the data concerning the recognition of the relations established by **hence**, **nevertheless** and **since**, the same procedure was used, a table was designed to compare the performance of students with an elementary and students with an intermediate level of the English language, students were divided into two groups to distinguish those who were able to paraphrase the connectors out of co-text and those who were not. Then, we considered the number of students who recognized the relation established by the connector and those who failed to do so. The following tables show the results:

<i>Connectors</i>	<i>Knowledge of English</i>	<i>Number of students</i>	<i>Recognition of the relation</i>		<i>Incorrect</i>	
Nevertheless	Elementary	2	2	100%	0	0%
	Intermediate	1	1	100%	0	0%
Hence	Elementary	2	2	100%	0	0%
	Intermediate	1	1	100%	0	0%
Since (causal)	Elementary	0	0	0%	0	0%
	Intermediate	0	0	0%	0	0%

Table 8: First Level students who provided a correct paraphrasing in Spanish of the connectors **nevertheless**, **hence**, and **since** out of co-text.

<i>Connectors</i>	<i>Knowledge of English</i>	<i>Number of students</i>	<i>Recognition of the relation</i>		<i>Incorrect</i>	
Nevertheless	Elementary	22	17	77.27%	5	22.73%
	Intermediate	5	4	80%	1	20%
Hence	Elementary	23	16	69.57%	7	30.43%
	Intermediate	4	4	100%	0	0%
Since	Elementary	24	15	62.50%	9	37.50%

(causal)	Intermediate	6	5	83.33%	1	16.66%
----------	--------------	---	---	--------	---	--------

Table 9: First Level students who provided an incorrect paraphrasing in Spanish of the connectors **nevertheless**, **hence**, and **since** out of co-text.

<i>Connectors</i>	<i>Knowledge of English</i>	<i>Number of students</i>	<i>Recognition of the relation</i>		<i>Incorrect</i>	
Nevertheless	Elementary	0	0	0%	0	0%
	Intermediate	2	2	66.67%	1	33.33%
Hence	Elementary	0	0	0%	0	0%
	Intermediate	0	0	0%	0	0%
Since (causal)	Elementary	0	0	0%	0	0%
	Intermediate	0	0	0%	0	0%

Table 10: Second Level students who provided a correct paraphrasing in Spanish of the connectors **nevertheless**, **hence**, and **since** out of co-text.

<i>Connectors</i>	<i>Knowledge of English</i>	<i>Number of students</i>	<i>Recognition of the relation</i>		<i>Incorrect</i>	
Nevertheless	Elementary	21	15	71.43%	6	28.57%
	Intermediate	4	4	100%	0	0%
Hence	Elementary	19	10	52.63%	9	47.37%
	Intermediate	8	4	50%	4	50%
Since (causal)	Elementary	20	10	50%	10	50%
	Intermediate	7	5	71.43%	2	28.57%

Table 11: Second Level students who provided an incorrect paraphrasing in Spanish of the connectors **nevertheless**, **hence**, and **since** out of co-text.

<i>Connectors</i>	<i>Knowledge of English</i>	<i>Number of students</i>	<i>Recognition of the relation</i>		<i>Incorrect</i>	
Nevertheless	Elementary	0	0	0%	0	0%
	Intermediate	1	1	100%	0	0%
Hence	Elementary	0	0	0%	0	0%
	Intermediate	0	0	0%	0	0%
Since (causal)	Elementary	1	1	100%	0	0%
	Intermediate	0	0	0%	0	0%

Table 12: Third Level students who provided a correct paraphrasing in Spanish of the connectors **nevertheless**, **hence**, and **since** out of co-text.

<i>Connectors</i>	<i>Knowledge of English</i>	<i>Number of students</i>	<i>Correct use of the connector</i>		<i>Incorrect</i>	
Nevertheless	Elementary	30	28	93.33%	2	6.66%
	Intermediate	2	2	100%	0	0%
Hence	Elementary	30	27	90%	3	10%
	Intermediate	3	3	100%	0	0%
	Elementary	29	27	93.10%	2	6.90%

(causal)	Intermediate	3	3	100%	0	0%
----------	--------------	---	---	------	---	----

Table 13: Third Level students who provided an incorrect paraphrasing in Spanish of the connectors **nevertheless**, **hence**, and **since** out of co-text.

The results show that a higher level of English does not seem to benefit our students, as significant differences between the performances of the two groups are not observed. Again, the processing difficulties of these connectors seem to be relatively independent of general language level.

The surprising result is that although most students did not know the meaning of **nevertheless**, **hence**, and **since** they obtained better results in the recognition of the relations they establish than with **so**, **but**, and **because** which were connectors they knew.

3.4 The problem of distinguishing Cause / Consequence

The connectors **so** and **because** were known by a high number of students, so it was decided to compare their use in sentences that the students had been asked to paraphrase into Spanish. The aim of this task was to see if the students were able to use the connectors properly (Appendixes 2 and 3). When we compared the use of **so** and **because**, we obtained the following results:

Level in the Chair	Connector	Number of students	Use of connectors			
			Correct		Incorrect	
First	So	19	14	73.68%	5	26.32%
	Because	30	17	56.67%	13	43.33%
Second	So	20	14	70%	6	30%
	Because	26	13	50%	13	50%
Third	So	21	16	76.19%	5	23.81%
	Because	31	19	61.29%	12	38.71%

Table 14: Use of the connectors **so** and **because**.

If we compare the performance of the students who were able to paraphrase **so** and **because** correctly out of co-text, we can see that in the three levels students found it more difficult to use the connector **because**, although all of them knew its meaning. The level of English language knowledge the students had was not a relevant variable, whereas their advancement in their course of studies proved to be significant for the final results.

Examples:

a- Student 4 was attending the Third Level and he was not able to recognize the relation of consequence between the two clauses. This student had an intermediate level of knowledge of the English language and he was beginning his University studies:

- 1- The adoption of an innovation makes an individual or organization more likely to adapt a related innovation--BECAUSE----- libraries that have successfully introduced new services and technologies more easily adopt subsequent innovations.

Sharon, Grey Weiner (2003): "Resistance to change in libraries: Application of Communication Theories". *Libraries and the Academy*, Vol. 3, N° 1.

¿Qué tipo de relación se establece entre las dos ideas?

- Causa **X**
- Consecuencia
- Contraste

c- Student 9, who was attending the Second Level, was able to paraphrase correctly the two ideas but she could not see the contrast between the genesis of a mass movement as something

very wide and all-encompassing that later narrows its scope to deal with issues less broad in scope. There is no support for causality.

a- The first wave of feminism emerged out of the abolitionist movement, and at first feminism was part of an egalitarian worldview, closely connected to antislavery and antiracism.....BECAUSE.....in the last decade of the nineteenth century, mainstream feminism narrowed to the demand for woman suffrage.

Epstein, Barbara. "Feminist Consciousness After the Women's Movement". Monthly Review. Vol. 54. No 4, September 2002.

¿Qué tipo de relación se establece entre las dos ideas?

- Causa **X**
- Consecuencia
- Contraste

Student 9 was one of the few ones who actually included her doubts or indecisions. This kind of observation was suggested by the invigilator but was not compulsory.

These are the student's comments: "Elegi *because* porque tomo el feminismo como parte de una visión igualitaria como la causa del **estrechamiento** en la demanda del sufragio pero también podría haber elegido *so* es decir, a partir de esto sucede lo otro."

Her explanation or interpretation does not provide support either – but offers a window to the internal workings of her mind. The topic might be disconnected from her interests as she is a Letters student, within the Foreign Literature orientation.

3.5 The case of *since*

Although **since** is a connector that indicates cause and time, most of the students paraphrased it as a temporal connector in the first task. Only two students out of 109 indicated that **since** could introduce a causal relation. In spite of this, most of the students were able to recognize the causal relation between the two ideas connected by **since** if the connector was used at the beginning of the sentence.

To analyze the processing of a causal relation using **since**, two different tasks were administered. First and Third Level students had to paraphrase a sentence beginning with a causal relation introduced by **since**, Second Level students had to do the same task but the sentence began with the consequence and the causal relation was in rhematic position⁷ (Appendix 4).

Finally we compared the students' performance of the processing of both connectors **because** and **since**. The following tables show the results:

Level in the Chair	Connector	Number of Students	Recognition					
			Correct		Doubt		Incorrect	
First	Because	30	17	56.67%	0	0%	13	43.33%
	Since	30	20	66.67%	3	10%	7	23.33%
Third	Because	33	20	60.61%	1	3.03%	12	36.36%
	Since	33	31	93.93%	0	0%	2	6.06%

Table 15: Recognition of the relation established by **because** and **since** in the first and third levels.

⁷ In Systemic Functional Grammar, the clause as message is organized into Theme + Rheme. In English, as in many other languages, this organization is expressed positionally: Theme is in initial position in the clause and Rheme follows.

The data collected showed that both the elementary and advanced students obtained better results in the recognition of the relation established by **since** than in the one established by **because**. This was an unexpected result because although most of the students had been able to provide an adequate Spanish equivalent for the causal connector **because** none of them was able to paraphrase **since** as a causal connector.

The results of Second Level students' performance in a task with a different excerpt are shown in the following table:

Connector	Number of students	Recognition					
		Correct		Doubt		Incorrect	
Because	28	13	46.43%	0	0%	15	53.57%
Since	28	16	57.14%	0	0%	12	42.86%

Table 16: Recognition of the relation established by **because** and **since** in the Second level.

If we compare the performance of the three groups we can see that the Second Level group found it more difficult to recognize the kind of relation established by **since** than the other groups. The fact that in this excerpt the consequence preceded the cause confirms the cognitive grammar explanation that the iconic order modifies the results. In other words, if the order of the sequence cause/effect follows the natural order of events, processing is facilitated.

3.6 Paraphrasing of **since**

A more detailed analysis of the data revealed that although students were able to recognize the relations, many of them chose a wrong Spanish equivalent for the connectors. The problem was the paraphrasing of **since** because only 27 students (42.19%) were able to paraphrase it correctly using "*ya que*", "*dado que*", "*a causa de*", "*debido a que*", "*a partir de*", "*porque*", "*por eso*", "*por ello*". The rest of the students was not able to provide an adequate equivalent in Spanish although they recognized the causal relation: 17 students (26.56%) used *desde*, 14 students (21.88%) chose *desde que*, 4 students (6.25%) selected a connector that indicates a relation of consequence (*por ello, por lo tanto, entonces, para que*) and 2 (3.12%) decided to omit the connector and used a comma. In this case, neither the knowledge of English nor the students' background from their course of studies influenced the results. The table below shows the results:

Examples:

Level	Total	Correct	Desde	Desde que	Others	Omission					
Elementary	20	6	10	1	3	0					
Intermediate	13	10	1	2	0	0					
Advanced	31	11	6	11	1	2					
Total	64	27	42.19%	17	26.56%	14	21.88%	4	6.25%	2	3.12%

Table 17: Paraphrasing of **since** by students who recognized the causal relation.

Librarianship is still searching for conceptual frameworks that can help inform both inquiry and practice. Since the information seeking phenomenon is of essential concern to us in libraries, it is imperative that we explore potential conceptual frameworks that can lead to better understanding of the process and product of information seeking.

Budd, John (2001): "Information seeking in Theory and Practice". *Reference and User Services Quarterly*, Vol 48, N° 3.

5- Parafreseá en español el texto leído.

6- ¿Qué tipo de relación establece since?

Causa

Consecuencia

Contraste

Student 6, who was attending the First Level and who was finishing his Ciclo de Grado⁸, was able to recognize the kind of relation introduced by **since** but used *desde que* to paraphrase the connector. This student did not know the meaning of the word *libraries* and thought it was a cognate:

Los bibliotecarios aún están buscando un marco teórico que pueda ayudar a informar las preguntas y las prácticas. **Desde que** el fenómeno de la información es esencial para nosotros en las bibliotecas, es importantísimo explorar el marco conceptual que pueda dirigir la búsqueda y la producción de información.

Student 14, who was attending the Third Level and who was doing his Ciclo de Grado, was able to recognize the causal relation but used *desde* as a Spanish equivalent for **since**.

Bibliotecarios están buscando marcos conceptuales que puedan ayudar a informar teoría y práctica. **Desde** la información se están buscando fenómenos que en esencia nos conciernen a nosotros en las bibliotecas, es imperativo que nosotros exploremos el marco potencial de conceptos para que se comprenda mejor el proceso y la producción de búsqueda de la información.

These students did not know that **since** is a causal connector. They recognized it as a temporal connector so when they had to paraphrase the sentence containing **since** they used *desde que* which is not used in Spanish to introduce a causal relation.

4. Discussion

The analysis of the collected data indicates that for the groups in this corpus:

a) The processing difficulty of connectors seems to be relatively independent of the general language level because in only one group better results were observed among students with an intermediate knowledge of the English language.

b) A considerable group of students found it difficult to distinguish the cause/consequence dimension although they were able to paraphrase the two ideas joined by the connectors correctly.

- It was easier for our students to understand the relation between the clauses if they reflected the natural order of events as in the clauses joined by **since**, although they did not know the semantic meaning of this connector.
- Although they knew the meaning of both **because** and **so**, our students found it more difficult to recognize the relation established by the former than the one established by the latter.

⁸ In the School of Philosophy and Letters, students attend a Ciclo de Grado (between 10 and fifteen subjects) and a Ciclo de Especialización (the number of subjects differs according to the different field so they attend between ten and fifteen subjects)

The Prototypical Cognitive approach for the analysis of grammar⁹ may provide an explanation for the cases in b. Both connectors **because** and **since** introduce a cause. In the selected examples, the former introduces a causal clause in rhematic position and it is preceded by a pause. In this case, the order of the clauses does not respect the order of events in real life where the cause precedes the consequence, thus resulting in difficulties in the processing of the relation between the clauses. With respect to **since**, in our examples it introduces a causal clause either in thematic or in rhematic position. If the cause is in thematic position, processing is facilitated whereas if it is in rhematic position, the difficulties increase and the results are similar to the processing of the clause introduced by **because**. In the case of **so**, the connector introduces a consequence in rhematic position and it is generally preceded by a pause, so the consequence appears after the cause. In sum, when the order of the clauses reflects the order of events in real life text processing is facilitated as the Prototypical Cognitive approach for the analysis of grammar states.

c) In a small but not negligible number of cases an interesting example of transfer which resulted in a coinage in the L1 (use of *desde que* or *desde* as a Spanish equivalent for **since**) when paraphrasing was observed. This confirms the finding that the most frequently encountered and/or activated form/meaning association will take precedence over new ones, in spite of contradictory data in the co-text. Adams (2004) stated that "in theory, the context processor works by sending its own stimulation to the meanings that it expects. This extra stimulation boosts the contextually appropriate dimensions of a word's meaning. Yet, even while the context processor facilitates the reader's awareness of appropriate words and meanings, it does not prevent stimulation of inappropriate ones" (p. 849). Koda (2005) remarks that "all of the words' known meanings are activated by its orthographic meaning even when the context imposes strong constraints" (p. 35).

d) Some students can translate the statements almost literally but are still not aware of the relation among concepts- and thus fail to construct a situational model of the corresponding text.

4.1 Pedagogical implications

Our students seem not to have benefited from the type of pedagogical intervention carried out in the regular courses because very few of them have acquired connectors that are used in academic texts (**however**, **nevertheless**, **since**). They seem to recognize only those that are more frequently used and which are taught in high school or in general English language courses (**so**, **but**, **because**). This may be explained by the word frequency effect which claims that common words are recognized more quickly than uncommon ones. It is well established that a word's frequency of occurrence is a strong determinant of performance in word recognition tasks such as lexical decision. As the time at our disposal is limited and relying on extended exposure has been shown to have restricted impact, we consider we should go for in-depth processing as the optimal option.

The type of intervention carried out so far to teach connectors has been mostly receptive, centered on the use of selective attention, recognition, and interpretation of text based exercises to facilitate the learning process. At this stage of our research we are considering the inclusion of production tasks which require retrieval and production of target words in appropriate novel contexts so as to accelerate acquisition of the connectors frequently used in academic texts.

María Susana González is Professor at the School of Philosophy and Letters, Universidad de Buenos Aires in charge of the Reading Comprehension Chair where she has been teaching since 1988. She supervises High Schools in the City of Buenos Aires and teaching English, Latin American Literature and Spanish in High Schools. She has participated as a researcher in UBACYT projects since 1995 and has made presentations in

⁹ The Prototypical Cognitive approach assumes that a speaker uses a language as an instrument to achieve specific objectives and that he/she finally says what he wants to say. In the analysis of connectors several features are taken into account: semantic features, the kind of information they introduce (new or old), position within the clause, prosody, the function of the connector as regards information hierarchy, the specification of elements in both clauses that determines the degree of discourse coherence and which make the relation possible.

national and international congresses. Her main interests are discourse analysis, the teaching of reading of academic texts and the study of acquisition of lexis. masugonzalez@gmail.com

Monica Gandolfo is a teacher of didactics and teaching practice. She has lectured extensively on methodological issues and has co-authored several coursebooks. She is a former lecturer of Materials Design II of the Licenciatura en Enseñanza del Idioma Inglés, Universidad CAECE and of Methodology at the Licenciatura en Lengua Inglesa, Universidad Tecnológica Nacional, Regional Avellaneda. She teaches reading comprehension of academic texts at the School of Philosophy and Letters of the University of Buenos Aires. Her main interests are the teaching of English in disadvantaged contexts and the study of lexis related issues in comprehension and production. monica.gandolfo@gmail.com

Alicia Nerguizian works at the Department of Modern Languages, at the School of Philosophy and Letters, Universidad de Buenos Aires where she is in charge of the coordination of the Intermediate Level Distance Learning Course in the Reading Comprehension Chair. She has participated in several UBACyT projects as well as a presenter in national and international seminars and congresses in the field of academic lexis acquisition. She is in charge of the Academic Coordination at the Language Laboratory of the School of Philosophy and Letters. abnergui@gmail.com

Bibliography

*Adams, M. (1990). Modelling the Connections between Word Recognition and Reading in Alderson, J. (2000). *Assessing Reading*. CPU, Cambridge, United Kingdom.

*Bernhardt, E. (1991). *Reading Development in a Second Language: Theoretical, Empirical and Classroom Perspectives*. Ablex Publishing Corporation, Norwood, New Jersey.

*Bernhardt E. and Kamil, M. (1995). Interpreting Relationships between L1 and L2 reading: consolidating the linguistic threshold and the linguistic interdependence hypothesis in *Applied Linguistics* 16 (1), 15-34.

*Bernhardt, E. (2005). Progress and Procrastination in Second Language Reading in *Annual Review of Applied Linguistics*, 25, pp. 133-150.

*Borzi, C. (2002). "Conectores y Progresión Temática en la Reseña de Divulgación Científica" in *Actas de las IV Jornadas de la Lengua Española*, Universidad del Salvador - Septiembre 2000, págs. 47-53.

*Coady, J.; Huckin, T. (1997). *Second Language Vocabulary Acquisition. A Rationale for Pedagogy*. Cambridge University Press.

*Ellis, R. (1994). *The study of Second Language Acquisition*. Oxford University Press. Oxford.

*Fraser, C. A. (1999). Lexical processing strategy use and vocabulary learning through reading in *Studies in Second Language Acquisition*, 21.

*González, M. (2003): Selección léxica en la argumentación en textos académicos en inglés. Dorrnzoro, M; González, M; Klett, E, Lucas, M.; Pasquale, R.; Vidal, M. (com.) *Enseñanza de lenguas extranjeras en el Nivel Superior*.

*Grabe, W.; Stoller, F. (2002): *Teaching and Researching Reading*. Pearson Education Ltd, England.

*Hulstijn, J. (1997). Mnemonic methods in foreign language vocabulary learning. Theoretical considerations and pedagogical implications in Coady and Huckins (Eds.) *Second Language Vocabulary Acquisition* Cambridge University Press.

*Kintsch, W. (1988). The role of Knowledge in Discourse Comprehension: A Construction Integration Model". Ruddell, R.; Rudell, M.; Singer, H. (ed) (1994): *Theoretical Models and Processes of Reading*. Fourth Edition. Newark, Delaware: International Reading Association.

*Kintsch, W. (1998). *Comprehension: a Paradigm for Cognition*. Cambridge University Press.

*Koda, K. (2005). *Insights into Second Language Reading. A Cross-Linguistic Approach*. Cambridge Applied Linguistics. CUP

*Jordan, R.R. (1997). *English for Academic Purposes, Vocabulary Development*. Cambridge: CUP, pp. 149 - 163.

Learning: An Introspective Study in. *The Modern Language Journal*, Vol. 84, Number 2.

*Nagy, W., Anderson, R., & Herman, P. (1987). Learning word meanings from context during normal reading. *American Educational Research Journal*.

*Nation, I. S. P., Coady, J.(1988). Vocabulary and Reading in R Carter & M. McCarthy (Eds.) *Vocabulary and Language Teaching*. London: Longman.

*Nation, I. (2001). *Learning Vocabulary in another Language*. Cambridge University Press. Cambridge, United Kingdom.

*Paribakht, T.; Wesche, M. (1997). Vocabulary enhancement activities and reading for meaning in second language vocabulary acquisition in Coady & Huckins (Eds.) *Second Language Vocabulary Acquisition*. Cambridge University Press.

*Paribakht, T.; Wesche, M. (2000). Reading Based Exercises in Second Language Vocabulary

*Plourde, C.; Besner, D. (1997). On the locus of the word frequency effect in visual word recognition in *Canadian Journal of Experimental Psychology*

*Rudell, R.; Rudell, M.; Singer, H. (ed) (1994): *Theoretical Models and Processes of Reading*. Fourth Edition. Newark, Delaware: International Reading Association.

*Rumelhart, D. (1994). Toward an Interactive Model of Reading in Ruddell, R.; Rudell, M.; Singer, H. (eds.): *Theoretical Models and Processes of Reading*. Fourth Edition. Newark, Delaware: International Reading Association.

*Spath Hirschmann, S. (2000). Modelo de adquisición de una lengua extranjera a través de las competencias receptivas in *Actas del VIII Congreso de la Sociedad Argentina de Lingüística*. Mar del Plata.

Appendix 1

Nombre y apellido	
Fecha de nacimiento	
Carrera	
Año de ingreso a la Universidad	
Orientación dentro de la carrera	
Número de materias aprobadas (sin CBC)	
Número de materias cursadas	

Conocimiento de idioma inglés

c- ¿Cómo aprobaste el nivel anterior de inglés?

-En un curso regular

-En el programa de inglés a distancia

-Rendiste libre

¿Cuál es el equivalente en español de las siguientes palabras o frases? No se preocupe si desconoce alguna. Indique todos los significados que conozca.

Palabra o frase en inglés	Equivalente en español
So	
Element	

<i>But</i>	
<i>Issue</i>	
<i>Yet</i>	
<i>Idea</i>	
<i>Nevertheless</i>	
<i>Question</i>	
<i>Thus</i>	
<i>Concern</i>	
<i>Although</i>	
<i>Critique</i>	
<i>And</i>	
<i>Assumption</i>	
<i>Moreover</i>	
<i>In spite of</i>	
<i>Unless</i>	
<i>So that</i>	
<i>Besides</i>	
<i>Thing</i>	
<i>In order to</i>	
<i>Furthermore</i>	
<i>Research</i>	
<i>Then</i>	
<i>Data</i>	
<i>However</i>	
<i>Survey</i>	
<i>Rather than</i>	
<i>Paradigm</i>	
<i>Sources</i>	
<i>Framework</i>	
<i>Whereas</i>	
<i>Approach</i>	
<i>Conversely</i>	
<i>Goal</i>	
<i>Because</i>	
<i>Characteristics</i>	
<i>Since</i>	
<i>As</i>	
<i>Hence</i>	

=====

The Effects of Phonological plus Reading Exposure over Immediate Vocabulary Retention

Patricia Insirillo, Adriana Adem
Universidad de Buenos Aires

Evidence of the role of phonological representation in vocabulary learning is vague as regards to the L2 mental lexicon. Framed under a constructivist/connectionist approach to L2 reading instruction, this study was carried out using two different types of instruction: a) reading b) reading and listening, to analyze the effects of phonological plus reading exposure (bimodality) over incidental vocabulary immediate retention. Ten key-words together with five transparent distractors were selected and used to design a test that contained three types of activities: word-form recognition, prompted-meaning recognition and unprompted-meaning recognition. This test was administered to two different groups of students, one following the reading approach methodology and the other following a bimodality procedure. Quantitative and statistical analysis performed on the data shows that the pedagogical Bimodality Approach has impact on immediate recall of targeted word-forms or meanings.

keywords: Vocabulary Acquisition; Reading Comprehension; Bimodality Approach; Immediate Vocabulary Retention

Introduction

This paper is framed within the English Chair of the Department of Modern Languages of the School of Philosophy and Letters in the University of Buenos Aires, in which reading is seen as an interactive process involving the reader, the text and the reading situation. For this Chair, reading is an active process of constructing meaning in which the reader incorporates textual information into his pre-existent system of knowledge. When a reader processes a text he incorporates information given in the textbase to his pre-existent knowledge. In many cases, this prior knowledge can compensate for low or lack of linguistic knowledge.

Within a constructivist / connectionist framework for the understanding of reading comprehension, knowledge emerges while reading as the reader constructs a textbase primarily via bottom-up processing of the textual input. The reader must then "add nodes and establish links between nodes from his or her own knowledge and experience to make the structure coherent, to complete it, to interpret it in terms of the reader's prior knowledge, and last but not least to integrate it with prior knowledge" (Kintsch 1998:103). This process would render the construction of situation models, in which various sources of knowledge may be needed in order to complement the textual information and to transform it into something that relates to and is integrated with the reader's store of knowledge and personal experience. Similarly, according to Molinari Marotto (1998), within an interactive approach to reading, communication moves both ways among different levels: top-down and bottom up. Within this approach, any source of information may be available to influence upon the processing of another source of information. As long as it is useful, any type of information can be used to help process another type of information. In this way, word recognition may aid comprehension, or prior knowledge may aid lexical inferencing.

Along the same lines, Koda (2005: 5) considers L2 reading comprehension from two complementary angles. From a cognitive view, reading is seen as reflecting the interactive nature among decoding, text-meaning construction and assimilation with prior knowledge. From a developmental perspective, reading involves two major operations: decoding and comprehension, which do not develop in parallel. A main issue in complex cognitive activities such as reading is that the number of mental resources that may be simultaneously activated in working memory is limited. That is to say, the attention required for decoding may detract from what otherwise would be available for comprehension. In his introduction, Koda clearly states the need to treat linguistic knowledge and its information-processing procedures –

word recognition, sentence parsing, and discourse processing- as separate constructs since they do not necessarily develop concomitantly.

1.1. Reading Comprehension and Lexical Processing

Molinari Marotto (1998) distinguishes two different aspects in lexical processing: a) word recognition and b) retrieval of the information about the meaning of the word (lexical access); in other words, either phonological or visual information helps identify the word – word recognition- to then access its semantic information –lexical access. Word recognition is a process of decoding that has attracted much attention in L1 and more recently in L2 literature. Following Koda (2005:29), we think that individual words are critical building blocks in text meaning construction, and efficiency in converting graphic symbols into sound or meaning in a particular context should help reduce the semantic gap created by an otherwise unknown word. Furthermore, O’Grady and Archibald in *Contemporary Linguistic Analysis* (2000) say that within a parallel processing model of word processing, phonological, lexical and syntactic processes interact at the same time.

This leads to the extensively discussed question of whether L2 mental lexicon is intrinsically more form-based than L1 mental lexicon. In this respect, Singleton (1999:189) states that although formal processing may play a particularly important role in the early stages of the learning of a new word, it is meaning rather than form that has the greatest importance in lexical acquisition. Furthermore, L2 vocabulary development is influenced by the organization of the mental lexicon based on initial sound processing, stress pattern, affixation, and semantic networks, among other decoding strategies. It is claimed, though, that L2 semantic networks are not as frequent and strong as in L1. Singleton (1999:154) puts forward the idea that L2 learning initially attends to form rather than meaning; and refers to Henning’s study (1973) in which he set out to explore whether learners retained vocabulary in phonological or in semantic clusters. The results yielded by Henning’s research proved that low-proficiency learners registered vocabulary by phonological rather than by semantic similarities, whereas high-proficiency learners demonstrated the opposite. However, Soderman’s findings on lexical processing (1993, cited by Singleton 1999) showed that each lexical item has its own processing history, passing from a more ‘phonological’ to a more ‘semantic’ profile as it becomes more integrated into the internalized system.

In sum, the question of the respective roles of form (auditory or/and visual) and of meaning in the acquisition of L2 vocabulary is still a topic of debate. Cognitive theory suggests that linguistic codes and structures are stored and retrieved from memory in the same way as any other type of information. This theory considers that memory functions in two stages: working or short term memory and long term memory. Short-term memory is limited in its capacity and requires conscious effort in order to retain information. Long term memory, on the other hand, has a larger capacity and does not work under a conscious level of control. Information is transferred and stored from one stage to the other by means of phonological and of visual repetition in the working memory system (Anderson 1995). Garman (1990) states, however, that there is scant knowledge as to whether information stored in short-term memory when reading is mainly based on auditory or on visual principles. Nonetheless, he calls the models that view reading as mediated via speech *indirect* theories of reading, as opposed to the *direct* or lexical theories. Also, Coltheart’s model (1994) proposes that there can be two routes for lexical access: the *direct* one, in which the grapheme recognition i.e. visual activation in memory, would lead to meaning; or the *indirect* one in which both grapheme *and* phoneme recognition would lead to meaning.

1. 2 Reading and Listening: Bimodality

Literature on the relationship between reading and listening provides evidence that listening to the language helps acquire a greater sense of rhythm, which in turn might help learners detect meaningful sense groups, rather than adopt a word-for-word strategy. Studies which investigate the effectiveness of reading while listening for comprehension have claimed that

as low proficiency EFL readers tend to break sentences into small incoherent parts while they read, reading aloud early in the program helps present larger semantic groups, which in turn lead to better comprehension. Similar studies related to this relationship carried out by Kuhn and Stahl (cf. Ericson, 2004) have also shown that a reading – while - listening approach produces significant gains in reading comprehension for older readers.

Previous studies developed in the Department of Modern Languages of the School of Philosophy and Letters in the University of Buenos Aires, have analysed the connections between phonological input and reading comprehension processing skills. The results of these studies show that students could comprehend the global meanings from an aural text and that previous knowledge on the text topic plays a key role in the listening process. (Delmas *et al*, 2000). As a by-product of these studies, listening activities have been designed to ensure that students with a low threshold level of English could comprehend an aural text using strategies and procedures similar to the ones applied for reading. These activities included the anticipation of meaning, the detection of key words, the identification of the aural text structure, and the activation of background knowledge, among others.

Further studies have delved into the effects of *reading while listening* on reading comprehension of academic expository texts (Gonzalez *et al*, 2007). In one of them, the experimental group was exposed to the teacher's reading aloud of the text and then students read the text silently whereas the control group read the text without any phonological input. In order to check text comprehension, both groups were asked to write the main ideas of the text. Their productions were then analyzed and compared. Subjects in the control group managed to recognize successfully most of the words/phrases present in the text. However, they did not succeed in detecting those words that would help them conceptualize and indicate the hierarchy of concepts. That is to say, most of the words detected referred to details and irrelevant information rather than to key concepts. On the other hand, subjects in the experimental group who received the phonological input included a lower number of details in their productions which were more precise, revealing better organization of information (Delmas *et al*, 2000). The results confirmed that the phonological input of the written text enhanced comprehension of academic texts in low proficiency L2 learners.

From these findings, and following Murphy¹⁰ (1996: 106) a bimodality course was designed in 2001 to test the appropriate combination and graduation of activities. In short, the effects of the bimodality instruction on text comprehension have been considered in different studies; however the impact of the use of the bimodality instruction on vocabulary acquisition has not been the object of any research.

2. Research project

Aim of the study

Our interest in this experimental research was to find out whether the bimodality instruction facilitates word recognition and retention. Hence, we analyzed the possible differences between two types of intake: a) visual, b) visual plus phonological. We considered the following research questions:

- 1- Do L2 learners retain more vocabulary from reading or from reading and listening? Does the listening mode facilitate immediate vocabulary recall?
- 2- Which stage in the vocabulary acquisition process is facilitated via the phonological input? Recognition, lexical access?

¹⁰ Murphy states that listening and reading represent closely connected learning opportunities for university students. He points out that student ability to draw connections between their academic listening and reading experience are essential for university learning. He compares academic listening and reading and discusses curriculum-design-principles suggesting alternative strategies for integrated listening-reading instruction in EAP courses. He calls this instruction **bimodality instruction**.

Our predictions were that the listening plus the reading mode may help immediate recall and, more specifically, may facilitate access to the meaning of new vocabulary items. We also expected to find differences as regards the type of activity required – form / meaning distinction.

3. Methodology

3.1 Participants

The data collection for this study was conducted at the School of Philosophy and Letters in the University of Buenos Aires during 2008. The participants were native speakers of Spanish enrolled in the Reading Comprehension First Level courses.

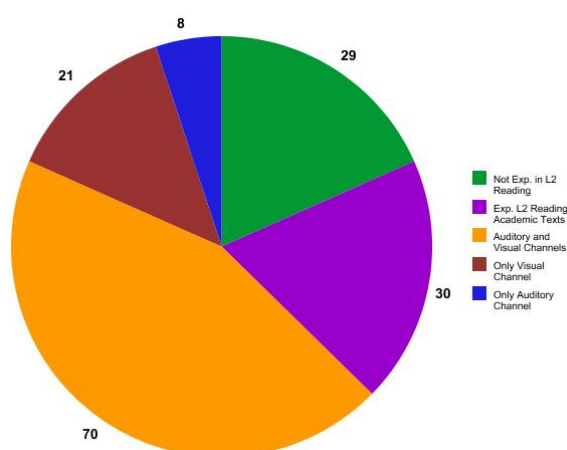
A total of 48¹¹ students from two courses completed all aspects of the present study. They had enrolled in these classes before learning that a research of this type would be carried out. Each group followed a different type of instruction: one followed the traditional reading approach while the other worked with bimodality instruction.

3.2. Materials and task design

Learners completed several tests intended to assess their background knowledge and profile. To determine their proficiency level of the target language (TL), a placement test¹² was administered. This test contained 57 multiple choice questions, which were progressively graded according to their difficulty.

To obtain information regarding sex, reading experience, age and other aspects relevant to the study, a profile sheet which included eight questions encompassing age, stage in their course of studies, reading experience in TL, text formats frequently read, text formats listened to, listening habits, preferred studying mode/style, and specificity of sources for acquisition of vocabulary was designed for the students to complete. The results of this profile sheet reveal that both groups shared similar characteristics as regards gender, age, language background and other socio-biographical parameters. The students' proficiency level in English varied between the ranges of beginner/elementary 50%, to intermediate 50%. The level was determined by a standardized placement test which comprised 57 multiple choice questions.

PERCENTAGES OBTAINED FROM THE PROFILE SHEETS



The readers' profile test showed the following results: 29% of the students did not have experience in reading L2 texts and only 30 % had experience in the reading of academic

¹¹ The study began with 81 learners but 33 were excluded due to class session absence or incomplete data.

¹² The test had been designed at the Ministry of Education in 2000 and was implemented in Rio Negro for a Training Course in Accreditation of Prior Experiential Learning. (Resolución C.F.C. Y E, N° 143/00)

texts, 70% of the students selected both auditory and visual channels as the best ways of studying. Only 21% selected the visual one and 8% just the oral one.

The material chosen for the vocabulary recognition and retention task was an excerpt from an academic text selected from the booklet used in the regular reading comprehension courses¹³ and taking into account the stage in the bimodality procedure (4th lesson). Besides, the excerpt was carefully analysed considering its comprehension difficulties. For the purpose of the test 10 target words necessary to ensure the comprehension of the excerpt were chosen. A test was then developed using these 10 target words plus five extra cognates (Appendix A and B). When both groups were tested, the learners presented no significant differences in their initial knowledge of the target words.

This test replicates Brown and Warning's study, *Vocabulary acquisition from Reading, Reading while Listening, and Listening to stories*¹⁴ (2008), which includes three exercises: a word form recognition activity, a multiple choice (prompted recognition) exercise and meaning by a translation (unprompted recognition) exercise. These three activities were designed taking into account the different types of word knowledge each one focuses on. In the word recognition exercise, the students were asked to write "yes" if they had seen or heard the word before. In the meaning exercise, the students were required to write all the possible meanings or associations they could make of the word. In the multiple choice exercise, students were asked to circle the correct meaning of each word.

The order of the activities was the following: 1) word form recognition, 2) meaning translation, and finally the multiple choice exercise. Task 3 was scheduled last in order to avoid that students recalled the meaning of a given word through the multiple choice exercise during the meaning translation activity. For the same reasons, the tasks were provided in two separate sheets. The same test was used as a pre and a post test (APPENDIX B). The only change that was made was in the order of the appearance of the words to avoid automatic activities or memorized answers.

3.3 Procedure

The tests were administered to both groups in the same lesson. The subjects were initially asked to participate in some research activities, which would not be used to evaluate them. Both groups performed the same tests: the completion of a profile sheet, an L2 placement test, a pre, and a post test. We recognised the need to control the frequency of occurrence of the target words; therefore, both groups read the same texts throughout the course. The Control Group ($n = 20$), worked with the Reading Approach while the Experimental Group ($n = 28$), worked with the Bimodality Instruction, which combines reading and listening during the anticipation of the reading process.

In the first class of the term, the students completed the profile sheet and the placement test. To test the students' knowledge of the target words, a pre test was administered in the fourth class, (one class before the administration of the reading task. In the fifth class, both groups worked with the reading of the academic text, receiving the corresponding pedagogical instruction mentioned above: reading or bimodality instruction. After reading the text and carrying out the same verification and internalization activities, (the pedagogical instruction only differs in the *anticipating* section), the students were asked to close their booklets and complete the post test.

A two way mixed factorial design was developed. The pedagogical strategies (reading and reading plus listening) were the independent variable and the pre and the post test, the repeated measures.

¹³ The excerpt from *The other Face of the Earth: Social Movements against the New Global Order*¹³ is an argumentative academic extract of 26 lines which deals with Globalization and the Social Resistance to the New Global Order.

¹⁴ We followed the first version, not officially published, when published, the authors only included the multiple choice and the meaning translation exercise.

3.3.1 Detailed description of the pedagogical strategy followed in each group

3.3.1.1 Reading Group

This group worked throughout the course following the traditional reading approach applied in our classes. First, the readers' mental representation or schema is activated by means of skimming and scanning of the text during the anticipating phase. Then, during a more intensive, propositional reading, which we call verification, readers build new meanings using their background knowledge and the semantic connections they are able to make. During this stage, students work collaboratively promoting comprehension of the written text. In the last stage, called internalization, each student is asked to write the main idea of the text in a well written sentence that must contain the most relevant concepts arranged in a hierarchical order according to their importance in the text. Once this process is finished and all the above stages developed, activities related to important linguistic items are carried out, such as working with words and their morphology, with connectors and their function in the text, with anaphoric references, and with false cognates. These activities were designed to foster the acquisition of lexical/ linguistic items that in future texts may interfere with comprehension. This control group worked every class following this procedure.

In the fourth class, they received the pre test to determine their knowledge of the target words. A week later they read the text selected for this study following the reading procedure already described, and the post test was administered after the internalization.

3.3.1.2 Bimodality Group

This group worked with a bimodality instruction throughout the whole course. In this procedure, the reading comprehension activities of the anticipation were complemented with aural input and developed gradually and systematically. Every three classes, the strategies used to combine both skills were changed in order to foster independence and development of both receptive skills. During the initial stage (first 3 lessons), students get familiar with the phonology of the language: the simultaneous reading and listening of the text during the anticipation and before the silent propositional reading that characterizes this stage. Students follow the written version while they are exposed to the aural input. The reading aloud of the text is propositionally paused according to semantic and suprasegmental markers.

During the second stage (4th, 5th and 6th lessons), students are provided with a list of key words/phrases taken from the text, mixed among distractors (words that are phonologically similar to the target words or semantically possible in the text). Students listen to relevant parts of the text with the purpose of recognizing the key words and transparencies. Later, they semantically interrelate these words trying to infer and construct possible meanings (specific hypothesis), thus anticipating the concepts or ideas developed in the text through the aural input. The hypothesis is then confirmed or rejected through the propositional or detailed reading of the text.

In the last stage (after 7th lesson), the key words and distractors are no longer provided. The students receive the aural input of key parts of the original written text. After writing the general hypothesis, students are exposed to an aural reduced version of the text and take down notes. They later compare their notes, interrelate the key concepts or key phrases detected and, by means of inferences, they write a specific hypothesis which is then confirmed or rejected through the detailed or propositional silent reading of the written original text. (i.e., verification).

Just like the other group, the placement test and evaluation sheet were administered in the first lesson. Students completed the pre test in the fourth lesson so that the researchers could collect information about their previous knowledge of the target words. In the fifth lesson, after anticipating the general hypothesis through the reading of bibliographical data, title, subtitle, and paratext, the students were asked to close their booklets, and key words and distractors were provided. Once the students read these words, they were exposed to

the aural input of parts of the text¹⁵ with the purpose of identifying these key words or phrases. Once they had finished performing the listening activity, they provided a specific hypothesis which they later confirmed or rejected through the detailed reading of the text. The activities for verification and internalization did not vary between the two groups; neither did the post test activities, which, as with the other group, were administered right after the internalization.

4. Data collection and Analysis

The data of the pre tests and post tests were tallied following the criteria explained below:

- In the recognition activity: Yes/ No (whether the words were recognized or not).
- In the translation activity: Known, Partially Known, Unknown. The number of unknown words was tallied. A conceptually incorrect translation or explanation was considered unknown. Partially known answers, that is to say, when the translations carried the same meaning as the English words regardless of its grammatical form, were not considered under the category of unknown words.
- In the multiple choice activity each correct answer was scored.

The results obtained were statistically analyzed comparing the scores obtained in both tests (pre – post) according to the pedagogical instruction used (bimodality – reading). For this statistical analysis, a two way mixed ANOVA was implemented, its between-subjects factor being the pedagogical instruction (bimodality – reading) and its within-subjects factor being test (pre – post). The critical value (α) was 0.05. Results obtained showed a main effect on the pedagogical strategy, $F(1, 46) = 7.09, p < 0.01$ and of Test, $F(1, 46) = 167.75, p < 0.0001$. Furthermore, an interactive effect between pedagogical strategy and tests was also found, $F(1, 46) = 5.74, p < 0.02$. In order to find out the source of this interaction, a sequenced variance analysis for each of the tests was implemented; its factor being pedagogical strategy. Results indicated that in the pre test neither reading nor bimodality showed significant differences, $F(1, 46) = 2.03, p > 0.16$, whereas in the post test significant differences were found between groups, $F(1, 46) = 13.40, p < 0.0006$.

The most relevant differences were found in connection with the unknown words in the translation activity. Figure 1 shows the number of unknown words in the pre-test and the post-test for the reading and the bimodality groups. No significant differences between groups were found in the pre test, but in the post test the bimodality group got lower scores in unknown words.

The other measures from the translation activity (known – partially known) did not show significant differences between the reading and the bimodality groups ($p > 0, 05$). No significant differences between groups were found either in the recognition or in the multiple choice activities ($p > 0, 05$).

¹⁵In order to reduce the length of the aural input, parts of the text are selected to be read aloud. The students do not follow the written text while they receive the aural input during this stage.

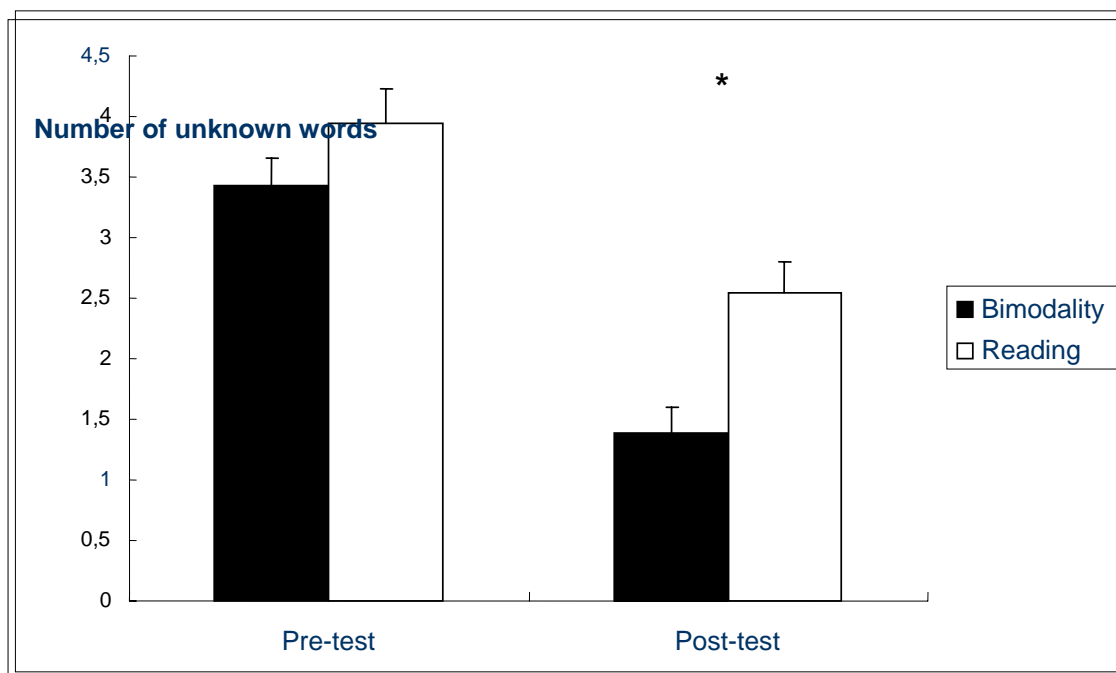


Figure1. Number of unknown words in pre-test and post-test for the reading and the bimodality groups in the recognition test. Vertical lines indicate standard errors in means. * $p < 0.0001$.

5. Discussion

The present study examined the impact on vocabulary acquisition of visual plus phonological input (Bimodality Instruction), during the anticipating activities of the reading class process. Findings indicate that vocabulary acquisition may be facilitated by the bimodality instruction because immediate retention of lexis is enhanced. This result could have been caused by a difference in the frequency of appearance of target words; however both groups read the same texts throughout the course. Another reason could be related to teachers' intervention but in order to control this variable, both teachers received instructions as to how to proceed in each case. The most plausible explanation for these findings, then, might be given by the choice of the pedagogical strategy used in each group, thus confirming our first hypothesis that listening plus reading –bimodality– may help immediate vocabulary recall. The results obtained seem to be consistent with the indirect theories of reading, i.e., models that view reading as mediated via speech (Garman 1999, p.210). This would also support other L2 studies, which have shown the existence of a correlation between phonological memory and children's L2 vocabulary acquisition. Phonological memory predicts the ability of both children and adults to learn new L2 vocabulary (Masoura & Gathercole, 1999, 2005 in O' Brien Irena 2006, p.379).

As to our second hypothesis as to what stage of the process of vocabulary acquisition is facilitated by phonological input, the results indicate that the Bimodality Instruction may facilitate the access to the lexical meaning of the word. Neither the recognition task nor the multiple-choice one showed significant differences. This finding supports Henning's (1973) and Soderman's (1993) studies, whose results show that low-proficiency learners registered vocabulary by phonological similarities rather than semantic ones, whereas high-proficiency learners demonstrated the contrary and that each lexical item followed a sort of processing history, passing from a more 'phonological' to a more 'semantic' profile as it becomes more integrated to the internalized system.

There are aspects of this study, though, that limit its generalizations but that also posit questions for future research. The number of words finally used was rather small, since all the words which contained affixes were left out to avoid interference as the reading program

explicitly works on morphological aspects. It would be interesting to replicate the study with a longer text and with more words so as to confirm the results obtained still favour the Bimodality Approach.

6. Conclusion

This preliminary study is motivating since its results indicate that the Bimodality Instruction may facilitate immediate retention of word meanings. It also contributes to previous studies on the relationship between the Bimodality Instruction and comprehension. It is important to explore and further investigate other aspects not dealt with in the present study, such as long term retention, explicit teacher intervention, and the application of the bimodality strategy to other contexts (e.g. different types of text). In conclusion, the results presented in this paper presented an initial investigation into the relationship between the use of the Bimodality Strategy in the reading lessons and its contribution to vocabulary acquisition.

Patricia Insirillo is a graduate teacher from INSP Joaquín V. González and a Bachelor in Education, graduated from University of Quilmes. She is attending a Master's Programme in Applied Linguistics for the Teaching of English as a Foreign Language at the Jaen University in Spain. She is currently teaching Reading Comprehension at the School of Philosophy and Letters in the University of Buenos Aires. She is co-author of reading comprehension didactic material for the reading comprehension courses (Levels I and II). She has been a member of the UBACYT research team since 1995.

pinsirillo@yahoo.com.ar

Adriana Adem is a graduate teacher from ISP Joaquín V. González. She is attending a Master's Program in Cognitive Psychology and Learning in FLACSO. She is currently teaching Reading Comprehension at Instituto Superior del profesorado "Joaquín V. González", and at the School of Philosophy and Letters, University of Buenos Aires. She has been a school coordinator since 1998 and she has participated in research projects since 2000.

aadem@fibertel.com.ar

BIBLIOGRAPHY

*Anderson, J. R. (Ed.) (1995): *Cognitive Psychology and its Implications*. 4th Edition. New York: Freeman.

*Brown, R.; Waring, R. & Donkaewbua, S. (2008): "Incidental vocabulary acquisition from reading, reading-while-listening, and listening to stories" in *Reading in a Foreign Language*, 20: No. 2, 136-163. <http://nflrc.hawaii.edu/rfl/October2008/brown/brown.pdf>

*Delmas, A., Insirillo, P., Otero, A., Rolli, E., & Spath Hirschmann, S. (2000). "Listening and Reading in an Academic Setting". (en prensa). Publicación del "1st National Congress on Professional Development for Teachers of English", Sta Fe, Argentina.

*Ericson, N. (2004). "ESL Secondary Students Reading-While-Listening: Improving Academic Reading Comprehension With Recorded Texts". Submitted in partial fulfillment of the requirements for the *degree of Master of Arts in English as a Second Language*. Hamline University Saint Paul, Minnesota. 1-89. http://www.hamline.edu/education/academics/resources_advising/pdf/capstone_nericson.pdf

*Garman, M. (Ed.) (1990). *Psycholinguistics*. UK: CUP.

*Gass, S. & Selinker, L. (Ed.) (2001): *Second Language Acquisition. An Introductory Course*. New Jersey: Lawrence Erlbaum Associates, Inc.

*Gonzalez, S., Delmas, A., Insirillo, P., Otero, A. (2007). "Desarrollo de una metodología bimodal aplicada a la comprensión de textos académicos en inglés". *Actas de las XIV Jornadas de Investigación y tercer encuentro de investigadores del MERCOSUR*, UBA, Facultad de Psicología. Buenos Aires. ISSN 1669-5097.

*Kintsch, W. (Ed.) (1998): *Comprehension: A Paradigm For Cognition*. University of Colorado: CUP.

*Koda, K. (Ed.) (2005): *Insights into Second Language reading. A Cross-Linguistic Approach*. UK: CUP.

*Molinari Marotto, C. (Ed.) (1998). *Introducción a los modelos Cognitivos de la comprensión del lenguaje*. Buenos Aires: Eudeba.

*Murphy, J. (1996): "Integrating Listening and Reading Instruction in EAP Programs" in *English for Specific Purposes*, 15:2,105-120.

*O'Brien, I.; Segalowitz, N.; Collentine, J. & Freed, B. (2006): "Phonological memory and lexical, narrative, and grammatical skills in second language oral production by adult learners" in *Applied Psycholinguistics*, 27: 377- 402.
<http://www-psychology.concordia.ca/fac/segalowitz/pdfs/2006-O'Brien-et-al-AP.pdf>.

*O'Grady & Archibald. (Ed.) (2000): *Contemporary Linguistic Analysis. An Introduction*. 4th Edition. Toronto: Addison Wesley Longman.

*Singleton, D. (Ed.) (1999). *Exploring the Second Language Mental Lexicon*. UK: CUP.

APPENDIX A: READING TEXT USED

Castells, Manuel: *The Power of Identity*. Vol II Oxford: Blackwell Publishers, 1997. Chapter 2: "The Other Face of the Earth: Social Movements against the New Global Order".

Chapter 2
The Other Face of the Earth:
Social Movements against the New Global Order

Globalization, Informationalization, and Social Movements

Globalization and informationalization, enacted by networks of wealth, technology, and power are transforming our world. They are enhancing our productive capacity, cultural creativity and communication potential. At the same time, they are disfranchising societies. As institutions of state and organizations of civil society are based on culture, history, and geography, the sudden acceleration of the historical tempo, and the abstraction of power in a web of computers, are disintegrating existing mechanisms of social control and political representation. With the exception of a small elite of *globapoliticians* (half beings, half flows) , people all over the world resent loss of control over their lives, over their environment, over their jobs, over their economies, over their governments, over their countries, and ultimately, over the fate of the Earth. Thus following an old law of social evolution, resistance confronts domination, empowerment reacts against powerlessness, and alternative projects challenge the logic embedded in the new global order, increasingly sensed as disorder by people around the planet. However, these reactions and mobilizations, as is often the case in history, come in unusual formats and proceed through unexpected ways. This chapter and the next one, explore these ways.

To broaden the empirical scope of my inquiry, while keeping its analytical focus, I will compare three movements that explicitly oppose the new global order of the 1990's, coming from extremely different cultural, economic, and institutional contexts, through sharply contrasting ideologies: the Zapatistas in Chiapas, Mexico; the American militia; and *Aun Shinrikyo*, a Japanese cult.

Anticipation used with the Experimental Group (Bimodality Approach)

1. Read the bibliographical data, title of the book, **chapter está en la bibliographical data** and subtitle.
2. Number the paragraphs. Read the first sentence of each paragraph.
3. Scan the text **for important connectors**. Predict the **text organization**.
4. Now you will listen to parts of the text read aloud. Tick the words you hear. **Do NOT READ** the text while listening.

Globalize – globalization – affecting – transforming – web – world – hand – enhance – enhancing – production capacity – productive capacity – creation – created – creativity – disfranchising – economic control – social control- resistance – reactions – unusual formats – usual formats- compare – comparison – two movements – three movements – oppose – support – new global order.

5. Study the words you've ticked. Infer their relationship and anticipate the main idea of the text. **(Specific hypothesis)**
6. Now read the text in groups.

Verify:

Complete the following chart.

<u>New Global Order</u>	
Positive Aspects:	
Negative aspects:	
Author's purpose	

Internalize

Write the main idea of the text in one well-written sentence.

APPENDIX B: PRE AND POST TEST (The order of the words was changed for the post test)

Complete el cuadro.

En la primera columna escriba **SI o No** de acuerdo si reconoce la palabra (Reconocer = si alguna vez la vio o escuchó).

En la tercera columna explique, traduzca o exprese lo que significa la palabra. Si conoce varias acepciones expréselas. De no saber la respuesta escriba **NS.**= desconozco / no sé.

PALABRA	Reconozco SI O NO	Significado/s, sentido/s, explicación o traducción de la palabra. o NS
1. Thus		
2. These		
3. Resent		
4. Representation		
5. Power		
6. Movements		
7. However		
8. Globalization		
9. Enhancing		
10. Disintegrating		

11. Creativity		
12. Confronts		
13. Challenge		
14. At the same time		
15. Against		

Marque la acepción/ significado más cercano para cada palabra.

1. Globalization:	a) globalización	b) informatización	c) globalidad
2. At the same time:	a) a la vez	b) en los mismos tiempos	c) a la brevedad
3. Against:	a) en contra de	b) en comparación con	c) en combinación con
4. Disintegrating:	a) desintegrando	b) dislocando	c) desistiendo
5. However:	a) sin embargo	b) como siempre	c) por consiguiente
6. Thus:	a) entonces	b) además	c) sin embargo
7. These:	a) este	b) estos	c) aquellos
8. Confront:	a) combinar	b) conectar	c) confrontar
9. Representation :	a) repromoción	b) representación	c) represión
10. Creativity:	a) creación	b) creatividad	c) credibilidad
11. Challenge:	a) chantajear	b) desafiar	c) cambiar
12. Enhancing:	a) aumentando	b) uniendo	c) enlazando
13. Resent:	a) sentirse influenciado	b) sentirse imbuido de	c) sentirse a disgusto
14. Movements:	a) agrupamientos	b) movilidad	c) movimientos
15. Power :	a) poder	b) posibilidad	c) pobreza

ARTESOL ESP Journal - Submission guidelines

ARTESOLESP Journal receives submissions of unpublished manuscripts on any topic related to the area of ESP. Four categories of manuscripts will be received: contributions, research articles, pedagogical experiences in ESP, and reviews.

Each manuscript must include the names, affiliation, and e-mail addresses of all authors. A brief biographical statement (maximum 100 words, in sentence format) for each author is required. (This information will be removed when the articles are distributed for blind review.) All manuscripts may be submitted in the following formats: Microsoft Word documents or RTF documents.

Contributions

In this section, articles by prestigious ESP specialists will be published.

Research Articles

This is a section devoted to the publication of research articles which will be refereed by our Academic Editorial Board.

- Articles should report original research.
- Full-length articles should be no more than 8,500 words in length, excluding appendices.
- Each submission should include an abstract of no more than 150 words, and a list of five to seven keywords. All article manuscripts submitted to *ARTESOLESP Journal* will go through a two-step review process.
- A biodata of the author (s) should be included. (No more than 100 words)
- ***All manuscripts should follow APA style.***

Research articles should generally include the following sections:

1- Abstract

2- Five to seven keywords.

3- The introduction includes:

- ✚ The research issue
- ✚ The underlying theoretical framework.
- ✚ A description of the methodological tradition in which the study was conducted.
- ✚ Research hypotheses or questions.

4- Method section:

- ✚ Description of participants and research context.
- ✚ A detailed description of data collection and analysis procedures.
- ✚ Description of the apparatus or materials used.
- ✚ Explanation of the procedures and the steps in the research

5- Results section:

- ✚ Presentation of graphs and tables that help to explain the results.
- ✚ For quantitative research, presentation of descriptive and inferential statistics used to analyze the data.
- ✚ For qualitative research, data should reflect prolonged engagement, observation, and triangulation.

6- Discussion section:

- ✚ An evaluation and interpretation of the results.
- ✚ Discussion of alternative explanations.
- ✚ Causal inferences should be cautiously made.
- ✚ Results of the study should not be overly interpreted or generalized.
- ✚ Linking the results obtained in the study to original hypotheses.
- ✚ Presentation of the implications and any limitations of the study.

7- Conclusion:

- A summary and general implications of the study.
- Suggestions for further research.

8- References in APA format.

9- Appendices of instrument(s) used.

Pedagogical experiences in ESP

This section includes the description of organization and development of new courses using ESP.

- Manuscripts should report original pedagogical experiences: teaching techniques and methodologies, management of different teaching situations, testing and assessment, materials development.
- Full-length articles should be no more than 8,500 words in length, excluding appendices.
- Each submission should include an abstract of no more than 150 words, and a list of five to seven keywords.
- A biodata of the author (s) should be included. (No more than 100 words)
 - *All manuscripts should follow APA style.*

Reviews

This section includes reviews of books and journals published by Universities, Teacher Training Colleges and other institutions interested in the development of ESP courses or studies.

Reviews of individual books, journals or reading instructional software should not be longer than 1,600 words.

The following information should be included at the beginning of the review:

- * Author(s)
- * Title
- * Publication date
- * Publisher
- * Publisher City and Country
- * Number of pages
- * A biodata of the author (s) should be included. (No more than 100 words)

ARTESOLESP Journal follows the guidelines of the fifth edition of the Publication Manual of the American Psychological Association published by the American Psychological Association (APA) in 2001. Manuscripts submitted to *ESP Journal* must conform to APA format.

By electronic mail send the material to:

masugonzalez@gmail.com
mariaclaudia.albini@gmail.com
monica.gandolfo@gmail.com

Review Process

All manuscripts submitted to *ARTESOLESP Journal* will go through a two-step review process.

**Internal review*

The editors of the journal will first review each manuscript to see if it meets the basic requirements for articles published in the journal.

**External review*

Submissions that meet the requirements stated above will be sent out for peer review from two to three experts in the field. This second review process takes 2–3 months. When this process is finished, the authors will receive copies of the external reviewers' comments and will be notified as to the decision (acceptance, acceptance with changes, or rejection).

General publication policies

The following policies apply to all articles, reviews, and commentaries:

1. All submissions must conform to the requirements of the Publication Manual of the American Psychological Association (5th edition). Authors are responsible for the accuracy of references and citations, which must be in APA format.
2. Manuscripts that have already been published elsewhere or are being considered for publication elsewhere will not be considered for publication in *ARTESOLESP Journal*. It is the responsibility of the author to inform the editor of the existence of any similar work that is already published or under consideration for publication elsewhere.
3. Authors of accepted manuscripts will assign to *ARTESOLESP Journal* the permanent right to electronically distribute the article.
4. The editors of *ARTESOLESP Journal* reserve the right to make editorial changes in any manuscript accepted for publication for the sake of style or clarity. Authors will be consulted only if the changes are substantial.
5. Articles are copyrighted by their respective authors, but if published after electronic appearance, *ARTESOLESP Journal* will be acknowledged as the initial locus of publication.
6. The views expressed in *ARTESOLESP Journal* do not necessarily represent the views of ARTESOL.