

IS THE FOREIGN LANGUAGE CLASS REALLY A MORE THREATENING PLACE THAN THE VIRTUAL ENVIRONMENT?

Patricia Arnaiz

Universidad de Las Palmas de Gran Canaria

Abstract: *Computer technology has the potential to provide rich resources for language teaching and learning. As computer access increases, so do new learning technologies in education. This paper is specifically interested in the case of English language instruction in a Teacher Training Faculty, and blended e-learning components as tools for supporting English language acquisition. Through the analysis of a researcher-developed survey, this study examines and compares students' feelings and perceptions towards their participation in class and their participation in the online environment with the aim of detecting whether major differences between the two contexts exist. It also seeks to discover the extent to which learners value the online environment within the whole language learning process. The paper concludes by emphasizing the need for and relevance of research focusing on this learning format, given the specific characteristics of University education today, in the light of the recent implementation of the European Higher Education Area (EHEA) at University.*

Key words: *Computer Mediated Communication (CMC), blended learning, forum, discussion board, classroom language learning, participation.*

1. INTRODUCTION

Success in language learning depends mainly on students' ability to use effective learning strategies. According to MacIntyre and Noels (1996:373), learning strategies are "Steps taken to facilitate the acquisition, storage, retrieval, and use of information". In their study with 138 students, these authors examined 50 language learning strategies and discovered that the most anxiety-provoking strategies were the following: starting second language (L2) conversation, encouraging oneself to speak when afraid, looking for conversation, finding ways to use the L2 and asking questions in L2. But at the same time, MacIntyre and Noels also observed that students rated these strategies as highly effective. Students were conscious that the best way of improving their proficiency was to practice their productive skills, both spoken and written. However, what was hindering the learning process was a strong sense of self-consciousness. Therefore, it is of utmost importance to find situations in which students feel comfortable enough to interact readily with others using the target language. Adding e-learning instruction components may provide more of those opportunities (Petty, Johnston, & Shafer, 2004).

The rapid development of Computer Mediated Communication (CMC) in recent decades has led to the appearance of new alternatives in language teaching (Levy, 1997; Chapelle, 2000; Hegelheimer & Chapelle, 2000; Warschauer, 2000). It is widely held that learners behave differently when communicating online compared to a face-to-face interaction. They have fewer inhibitions, experience less anxiety, and reduce their public self-awareness (Matheson & Zanna, 1988; Sproull & Kiesler, 1991; Roed, 2006; Dekhinet, 2008). Bradley & Lomicka (2000:362) refer to the computer as "a shield from being on-stage". The illusion of anonymity that language learners experience in online interactions seems to be a key element in decreasing anxiety levels.

As Wallace (1999:139) has stated, “Even when we are not exactly anonymous on the net, the physical distance and low social presence make us feel less inhibited, less likely to be detected”.

On the basis of these findings, it can be assumed that a virtual learning environment may constitute a more relaxed and stress-free atmosphere than a classroom. The low level of inhibition would be advantageous in foreign language learning, as it would result in increased language production. Teachers have long reported that students’ level of participation in online discussion boards is higher than in classroom discussions (Starr, 1997: 56), and it benefits students in general and low proficient students in particular, since they have more time to plan discourse (Sotillo, 2000, Leasure, Davis, & Thievon, 2000). On the one hand, several studies (Swain, 1985; Swain, & Lapkin, 1995; Swain, & Deters, 2007) have claimed that when offering students the opportunity to produce oral messages, we are giving them an opportunity for the meaningful practice of their linguistic resources and for the development of fluency and automaticity. On the other hand, the issue of thinking or planning time in foreign language learning has been addressed by several authors, all of whom underline the positive effect it has on fluency and language complexity (Ortega, 1999; Yuan and Ellis, 2003; Arnaiz, Peñate & Bazo, 2010).

Although the two types of production we have referred to -oral production in class and written production in discussion boards- would appear to differ, research has indicated that electronic text communication in both its asynchronous (email, bulletin boards, etc.) and synchronous (text chat, instant messaging, etc.) modes is more ‘speech-like’ than ‘written’ (Chang, 2002; Payne & Whitney, 2002; Weininger & Shield, 2003; Payne & Ross, 2005) and, therefore, the virtual environment may be considered an ideal medium for language practice.

One of the possible ways of incorporating the online environment in traditional teaching is by opting for a hybrid course, which means that part of the instruction is face-to-face while other sessions are online (Kraemer, 2008; Winke & Goertler, 2008a,b), that is, students not only attend classes, they also communicate electronically outside the class. This type of instruction is becoming more commonplace in higher education.

Given that an increasing number of studies in the field of second language acquisition have reported that exploring learners’ feelings and reflections has important implications for second or foreign language teaching (Dörnyei & Skehan, 2002; Dewaele, 2005), this study seeks to explore preservice language teachers’ feelings and perceptions in a blended course when using the language both in class and in a virtual learning environment. Indeed, as Dewaele (2005:369) has suggested, the learner is ‘[...] a crucial witness of his or her own learning process’. Along similar lines, Mitchell and Myles (2004: 26) contend that social psychologists have long been interested in the idea that learners’ attitudes towards the target language and the learning context may affect academic achievement.

This research, exploratory in nature, represents an attempt to gather some empirical information, but does not attempt to measure whether an improvement in language competency has resulted from using CMC. Rather, it has compiled information about how learners felt about computer-assisted instruction in comparison to traditional teaching methods. In addition, it has attempted to determine the value that the virtual environment has for students.

Although there seems to be no doubt that properly designed hybrid courses (Presby, 2001), combining the advantages of both types of instruction delivery, provide beneficial results, research assessing the effectiveness of hybrid online language courses remains limited to date. Additionally, very few, if any, studies have examined the role of this type of courses and how learners feel about them.

2. METHOD

2.1. Participants

The 46 participants were studying to become Primary English Teachers and ranged in age between 20 and 40 ($M = 24.65$; $SD = 6.49$); 34 (73%) were female and 12 (26.1%) were male. The setting for this investigation was a B2 level EFL classroom at a Spanish Teacher Training Faculty. The language level was established following the Common European Framework of Reference for Languages: Learning, Teaching, Assessment (CEFR)¹.

Prior to the study, all participants agreed to sign the consent form which indicated the aim and characteristics of the study.

2.2. Instrument

To obtain insights on the relevance of blended learning from students' perspectives, a researcher-developed survey of 15 items was created. It was a five-point Likert scale ranging from Strongly Disagree to Strongly Agree. This was used to gauge learners' perspectives and attitudes towards the traditional classroom and the virtual learning environment, and their perception of the role the latter had played in their English language learning process. They expressed their level of agreement by ranking the statements from 1 to 5 (5 is the highest score). In this paper, only nine of the items are covered, namely those concerning learners' worries about making mistakes, their difficulty in interacting, their fear of being laughed at and their assessment of the online environment.

A demographic questionnaire which sought information about participants' age, gender, and class and virtual environment marks was also designed for the research. Class and virtual environment marks were used to calculate the final mark that would be used when analyzing the data.

2.3. Procedure

The context chosen for the study was a hybrid or blended course. The face-to-face sessions ran for two semesters, three hours a week, and were complemented by virtual events, which used the software platform Moodle² as a support tool. The asynchronous mode of communication was chosen as the focus of our study of the online environment. In the discussion board, students had the chance to interact and give their opinions about the topics proposed either by the teacher or their fellow students; usually, the topics chosen were a continuation of the topics brought up in class or, viceversa sometimes the topics brought up in the discussion board were taken to the classroom and a debate ensued. Through the 'dialogue' option, students asked the teacher doubts about the content studied or about the subject. Furthermore, students tended to consult the software platform for details of the assignments they had to do, for the keys to certain exercises or for any particular file or link that had been uploaded and to which they had to go in order to be able to follow the classroom sessions properly. Besides, the platform functioned as the medium used to turn in and receive assignments already marked by the teacher. Thus, an inevitable link was established between the classroom and the virtual environment.

¹ A guideline used to describe achievements of foreign language learners across Europe. The 2008 study by Martínez Baztán has addressed correspondence with the American Council on the teaching of Foreign Languages (ACTFL) Guidelines. Thus, B1 would correspond to Intermediate Mid and Intermediate High, B2 would correspond to Intermediate High and Advanced Low, and C1, to Advanced Mid and Advanced High.

² Moodle was designed on the basis of various pedagogical principles ("social constructionist pedagogy") to help educators create effective online learning communities.

Before administering the questionnaires participants had to complete, permission was requested from the dean of the Teacher Training Faculty to conduct the research. Once the principal investigator had explained the purpose of the study to participants, they were asked to complete the background or demographic questionnaire. Subsequently, students were given the scale with the items to be studied. Participants had about 20 minutes to complete the questionnaires during class time.

2.4. Data analysis

The analyses described below were performed using the SPSS 17.0 for Windows. Descriptive statistics (mean and standard deviations) of the scale were calculated for the whole group. In order to investigate the relationship between the aforementioned items on the scale, on the one hand, and participants' age and final mark, on the other hand, the data were analyzed inferentially by means of correlation analyses.

3. RESULTS

The means and standard deviations of the selected items were computed (Table 1). The results of the survey show no differences in perceptions and feelings between the traditional class and the online environment.

Table 1. Means and Standard Deviations of the perceptions associated with students' participation in the classroom and in the forum and their feelings towards the role of the forum in the learning process (N = 46).

Variables	Mean	SD
1. I worry about making mistakes in the forum	3.46	1.20
2. I worry about making mistakes in the classroom	3.46	1.32
3. I find it hard to participate in the forum voluntarily	3.17	1.28
4. I find it hard to participate in class voluntarily	3.16	1.50
5. I'm afraid my classmates might laugh at me when I participate in the forum	2.40	1.35
6. I'm afraid my classmates might laugh at me when I participate in class	2.48	1.41
7. Thanks to the forum, my degree of involvement in the subject has been higher	3.61	1.04
8. I feel the forum has helped me in my English learning process	3.80	.83
9. I feel that the forum has been a positive experience for me	3.85	.81

Despite the fact that no significant difference was observed since students' feelings do not seem to differ in the two contexts explored, in two particular cases a difference can be noted in the level of agreement with the statements, as shown in Tables 2 and 3. Table 2 shows that the percentage of students who say that they 'agree' or 'strongly agree' that they worry about making mistakes is the same for both contexts (63%); however, when examining the figures in detail, one can see that 15.2% of the participants indicate that they 'strongly agree' that they worry about making mistakes in the forum, whereas the figure for the classroom context

is 21.7%. Table 3, meanwhile, shows that while 50% of students indicate that they 'agree' or 'strongly agree' that they find it hard to participate either in the forum or the classroom, the figure corresponding to the students who say that they 'strongly agree' that they find it hard to participate in class voluntarily is higher (25.0) than the figure for students who say that they find it hard to participate in the forum voluntarily (15.2).

Table 2. Percentage of participants who opt for each of the five answers offered when asked about their concern about making mistakes in each of the contexts examined (N = 46).

	I worry about making mistakes in the forum (%)	I worry about making mistakes in the classroom (%)
Disagreed Strongly	10.9	13.0
Disagreed	10.9	13.0
Had no opinion/ Felt Neutral	15.2	10.9
Agreed	47.8	41.3
Strongly Agreed	15.2	21.7
Total	100.0	100.0

Table 3. Percentage of participants who opt for each of the five answers offered when asked about their difficulty to participate voluntarily in each of the contexts examined (N = 46).

	I find it hard to participate in the forum voluntarily (%)	I find it hard to participate in class voluntarily (%)
Disagreed Strongly	10.9	20.5
Disagreed	26.1	18.2
Had no opinion/ Felt Neutral	13.0	11.4
Agreed	34.8	25.0
Strongly Agreed	15.2	25.0
Total	100.0	100.0

In order to analyze the relationship between the items on the scale, on the one hand, and participants' age and final mark, on the other hand, the data were analyzed inferentially by means of correlation analyses and Pearson correlation coefficients were computed (Table 4). Age yielded a negative correlation of $-.308$ with *I find it hard to participate in class voluntarily*, but no correlation at all with any of the other items on the scale; similarly, final mark yielded a significant, although positive, correlation ($r = .300$) with the item labeled *Thanks to the forum, my degree of involvement in the subject has been higher*.

However, most of the items on the scale showed significant correlations. For example, the items *I worry about making mistakes in the classroom* and *I find it hard to participate in the forum* correlate with all the items on the scale. Both of them maintain a very high correlation with three of the items, as it happens with *I worry about making mistakes in the forum*, with which they maintain a correlation of $.727$ and $.438$ respectively. With the rest of the items, however, both items yield a moderate correlation as we can see, for instance, with *I'm afraid my classmates might laugh at me when I participate in the forum* the correlation is of $.325$ and $.338$ respectively.

Another item that yielded correlations with several items at the same time is the one related to the fear of being laughed at when participating in the forum. This item yielded a very high positive correlation ($r = .906$) with the fear of being laughed at when participating in class, and a negative correlation of $-.298$ with the feeling that the forum had been helpful in the English learning process.

Table 4. Pearson product-moment correlations among the scale items, age and final mark (N = 46).

Variables	1	2	3	4	5	6	7	8	9	10	11
1. Age	-										
2. Final mark	.000	-									
3. I worry about making mistakes in the forum	-.158	-.065	-								
4. I worry about making mistakes in the classroom	-.228	.002	.727**	-							
5. I find it hard to participate in the forum voluntarily	-.171	-.180	.438**	.361*	-						
6. I find it hard to participate in class voluntarily	-.308*	-.075	.401**	.490**	.483**	-					
7. I'm afraid my classmates might laugh at me when I participate in the forum	-.149	-.135	.314*	.325*	.338*	.255	-				
8. I'm afraid my classmates might laugh at me when I participate in class	-.178	-.143	.287	.379**	.333*	.374*	.906**	-			
9. Thanks to the forum, my degree of involvement in the subject has been higher	.277	.300*	.074	.334*	-.483**	-.145	-.166	-.082	-		
10. I feel the forum has helped me in my English learning process	.217	.065	.201	.303*	.320*	-.117	-.298*	-.316*	.474**	-	
11. I feel that the forum has been a positive experience for me	.212	.048	.208	.373*	-.419**	-.113	-.156	-.167	.609**	.193	-

* $p < .05$. ** $p < .01$.

4. DISCUSSION

On analysis of the data, one aspect stands out: the absence of a significant difference in students' fears and worries in the two contexts analyzed. Although after careful observation we discovered minimal differences between the classroom and the virtual environment, the interpretation of these results does not suggest that students feel much more comfortable in one context or another. These results are not consistent with some previous studies which affirmed that students usually feel less inhibited in discussion boards (Bradley and Lomicka, 2000) and that students in virtual language learning sessions were consistently more positive in their perceptions than were those in the traditional class (Lim & Shen, 2006). The explanation given by Dekhinet (2008) that the virtual environment is an advantageous and gratifying option for language learners to practice their foreign language "[...] as they would be typing rather than speaking, and would have no fear of being embarrassed or losing face when making mistakes" (p. 410) cannot be applied here. Nor was any coincidence found with the studies which have indicated that the classroom is always preferred over the virtual environment (Ayres, 2002).

Results in the correlational analyses point in the same direction and thus reinforce our previous analysis. Correlational analyses clearly showed a relationship between students' feelings when interacting in the classroom and their feelings when interacting in the virtual environment. The fact that students worry as much about the mistakes they make in the classroom as about the mistakes they make in the forum shows that they do not view one context more threatening than the other. Likewise, the correlation maintained between students' difficulty in participating in the classroom and their difficulty in participating in the forum and also between students' fear of being laughed at in the forum and their fear of being laughed at in the classroom corroborates the idea that the degree of comfort is the same in both situations. It is interesting to note that all the correlations were strong, which supports the idea that students, on average, did not perceive one context as being more favourable than the other. Thus, it appears that students see online learning as an integral part of language learning, they feel that the computer complements the classroom learning. These results would support the claim (Ayres, 2002) that technology can be simply viewed as another tool to be used in the language learning process.

As for the correlations detected between students' feelings about the role the forum has played in their learning process, once again, the results found are very revealing. A strong association exists between the difficulty in participating in the forum, on the one hand, and the feeling that the degree of involvement in the subject has been higher thanks to the forum and the feeling that the forum has been a positive experience, on the other hand. In addition, a correlation, albeit weaker, was also detected between the difficulty in participating in the forum and the feeling that the forum has been helpful in the English learning process. These findings suggest that while students find it hard to interact in the virtual environment, they acknowledge the benefits it provides to their learning process.

Although the survey was not geared specifically to examine students' satisfaction with the online environment, it does give evidence that students see it as a convenient tool, and they consider that it enhances, rather than replaces, classroom-based instruction.

5. CONCLUSIONS

One of the clearest indications emerging from this study is that the virtual environment has proved to be a good resource to supplement the classroom, and needs to be closely tied into the curriculum.

The immediate implication of this research is that more research needs to be conducted in the area of blended learning, a model that today, with the implementation of the European Higher Education Area (EHEA), should inevitably become the most frequently used option not only in the learning of a foreign language but also of any other discipline. As instructed SLA researchers, we have a responsibility towards the foreign language teaching community. It is fundamental that we ask ourselves: How could SLA research be more responsive to the variety in language learning experiences? How can we research the L2 learning process in ways that provide findings that really shed light on learner-centred education? Sound research into SLA is essential for the development of good teaching practices. In this particular case, the scarcity of research available leads to the feelings and attitudes of learners towards the learning process remaining unknown, as well as leaving us with insufficient knowledge about how to progress in terms of how to address teaching or about the frequency with which certain approaches should be employed. We believe that this preliminary research allows us to glean some valuable insights and encourages us to continue examining students' interaction in class and in CMC. It is necessary that language teachers realistically assess the implications of using computers as learning tools.

The major limitation of this study was that it only took into consideration the perception of 46 students, making it difficult to generalize the findings. It is clear that more varied samples of participants representing a wide variety of backgrounds would strengthen the validity of the findings gleaned by this research. However, the reason for this small sample size was that it was the interest of the authors to capture the perceptions of pre-service English teachers in a particular context, a university in Spain, who had experienced blended learning. The period of this investigation was an entire academic year and weekly participation in online discussions was a mandatory requirement.

However, and in spite of the above mentioned limitation, the reduced amount of empirical research related to blended learning makes this preliminary study one of particular importance to the literature.

ACKNOWLEDGEMENTS

The author of this article would like to thank Heather Adams, University of Las Palmas de Gran Canaria, for checking and correcting the English version of the original manuscript.

BIBLIOGRAPHY

- Arnaiz, P., Peñate, M., Bazo, P. (2010). "El efecto de la planificación en la expresión oral en alumnos de primaria", *Porta Linguarum* 14: 181-195.
- Ayres, R. (2002). Learner attitudes towards the use of CALL, *Computer Assisted Language Learning* 15/3: 241-249. <http://dx.doi.org/10.1076/call.15.3.241.8189>
- Bradley, T. and Lomicka, L. (2000). "A case study of learner interaction in technology-enhanced language learning environments". *Journal of Educational Computing Research* 22/3: 247-368. <http://dx.doi.org/10.2190/TCUA-3YUV-B1P5-26P3>
- Chapelle, C. (2000). *Computers applications in second language acquisition*. Cambridge: Cambridge University Press.
- Chang, J. (2002). *The mask mechanism: A study of anxiety, motivation and communicative competence of Korean learners of English in computer-mediated communication environments*. Unpublished doctoral dissertation, The University of Manchester, Manchester, UK.

- Dekhinnet, R. (2008). "Online enhanced corrective feedback for ESL learners in higher education", *Computer Assisted Language Learning* 21/5: 409–425. <http://dx.doi.org/10.1080/09588220802447669>
- Dewaele, J. M. (2005). "Investigating the Psychological and Emotional Dimensions in Instructed Language Learning: Obstacles and Possibilities". *The Modern Language Journal* 89/3: 367–380. <http://dx.doi.org/10.1111/j.1540-4781.2005.00311.x>
- Dörnyei, Z. & Skehan, P. (eds.) (2002). *Individual differences in second language acquisition*. Amsterdam: John Benjamins.
- Hegelheimer, V. and Chapelle, C.A. (2000). "Methodological issues in research on learner-computer interactions in CALL". *Language Learning & Technology* 4/1: 41–59.
- Kraemer, A. (2008). "Formats of distance learning", in S. Goertler & P. Winke (eds.) *Opening doors through distance language education: Principles, perspectives, and practices*. San Marcos, TX: Computer Assisted Language Instruction Consortium (CALICO), 11–42.
- Leasure, A.R., Davis, L., and Thievon, S.L. (2000). Comparison of student outcomes and references in a traditional vs. World Wide Web-based baccalaureate nursing research course, *Journal of Nursing Education* 39/4: 149–154.
- Levy, M. (1997). *Computer-assisted language learning: Context and conceptualization*. New York: Oxford University Press.
- Lim, K. M. and Shen, H. Z. (2006). Integration of computers into an EFL reading classroom. *ReCALL* 18/2: 212–229. <http://dx.doi.org/10.1017/S0958344006000528>
- MacIntyre, P. D. and Noels, K. A. (1996). "Using social-psychological variables to predict the use of language learning strategies", *Foreign Language Annals* 29/3: 373–386. <http://dx.doi.org/10.1111/j.1944-9720.1996.tb01249.x>
- Martínez-Baztán, A. (2008). *La evaluación oral: una equivalencia entre las guidelines de ACTFL y algunas escalas del MCER* [Oral evaluation: an equivalence between ACTFL guidelines and some CEFR scales]. Unpublished doctoral dissertation. University of Granada, Granada, Spain.
- Matheson, K. and Zanna, M.P. (1988). "The impact of computer-mediated communication on self-awareness". *Computers in Human Behavior* 4: 221–233. [http://dx.doi.org/10.1016/0747-5632\(88\)90015-5](http://dx.doi.org/10.1016/0747-5632(88)90015-5)
- Mitchell, R. and Myles, F. (2004). *Second language learning theories* (2nd ed.). London: Arnold.
- Ortega, L. (1999). "Planning and focus on form in L2 oral performance", *Studies in Second Language Acquisition* 21: 108–48. <http://dx.doi.org/10.1017/S0272263199001047>
- Payne, J.S. and Ross, B.M. (2005). "Synchronous CMC, working memory, and L2 oral proficiency development", *Language Learning and Technology* 19/3: 35–54.
- Payne, J.S., and Whitney, P.J. (2002). "Developing L2 oral proficiency through synchronous CMC: Output, working memory and interlanguage development", *CALICO Journal* 20/1: 7–32.
- Petty, L. I., Johnston, J., and Shafer, D. (2004). "Distance education for adult learners". Retrieved March 1, 2006, from <http://www.projectideal.org/pdf/handbook/DEHandbook3rdEdTEXT2!.pdf>
- Presby, L. (2001). 'Seven tips for highly effective online courses', *Syllabus* 14,17.
- Roed, J. (2003). "Language learner behavior in a mutual environment", *Computer Assisted Language Learning* 16/2–3: 155–172. <http://dx.doi.org/10.1076/call.16.2.155.15880>
- Sotillo, S. (2000). "Discourse functions and syntactic complexity in synchronous and asynchronous communication", *Language Learning Technology* 4/1: 82–119.
- Sproull, L., and Kiesler, S. (1991). "Computers, network and work". *Scientific American*. Sept 1991, 116–123.
- Starr, P. (1997). "Computing our way to educational reform", *The American Prospect* 27: 50–60.
- Swain, M. (1985). "Communicative competence: Some roles of comprehensible input and comprehensible output in its development", in S. Gass, and C. Madden (eds.) *Input in Second Language Acquisition*. New York: Newbury House, 235–256.

- Swain, M. and Deters, P. (2007) "New Mainstream SLA Theory: Expanded and Enriched", *Modern Language Journal* 91: 820-836. <http://dx.doi.org/10.1111/j.1540-4781.2007.00671.x>
- Swain, M. and Lapkin, S. (1995). "Problems in Output and the Cognitive Processes They Generate: A Step Toward Language Learning", *Applied Linguistics* 16, 371-391. <http://dx.doi.org/10.1093/applin/16.3.371>
- Wallace, P. (1999). *The Psychology and the Internet*. New York: Cambridge University Press.
- Wang, Y., Chen, N. and Levy, M. (2010). Teacher training in a synchronous cyber face-to-face classroom: characterizing and supporting the online teachers' learning process. *Computer Assisted Language Learning* 23/4: 277-293. <http://dx.doi.org/10.1080/09588221.2010.493523>
- Warschauer, M. (2000). "The changing global economy and the future of English teaching", *TESOL Quarterly* 34: 511-535. <http://dx.doi.org/10.2307/3587741>
- Weininger, M.J. & Shield, L. (2003). "Promoting oral production in a written channel: an investigation of learner", *Computer Assisted Language Learning* 16/4: 329-349.
- Winke, P.M., & Goertler, S. (2008a). "An introduction to distance language learning", in S. Goertler & P. Winke (eds.) *Opening doors through distance language education: Principles, perspectives, and practices*. San Marcos, TX: Computer Assisted Language Instruction Consortium (CALICO), 1-10.
- Winke, P.M., & Goertler, S. (2008b). "Did we forget someone? Students' computer access and literacy for CALL", *CALICO Journal* 25/3: 482-509.
- Yuan, F. & Ellis, R. (2003). "The effects of pre-task planning and online planning on fluency, complexity and accuracy in L2 monologic oral production", *Applied Linguistics* 24/1: 1-27. <http://dx.doi.org/10.1093/applin/24.1.1>