THE RELATIONSHIP BETWEEN METACOGNITIVE AWARENESS AND READING IN ENGLISH AS A FOREIGN LANGUAGE

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ABSTRACT

This study investigates the relationship between Spanish university students' metacognitive conceptualizations about reading in English and their reading in that language. One group of 66 native speakers of Spanish studying the second year of Teacher Training at the University of Oviedo participated in the experiment. A questionnaire was developed to obtain relevant information about their perceived reading ability in English as a foreign language and about their metacognitive conceptualizations or awareness judgments about silent reading strategies in that language. We find a significant relationship between reading ability awareness and reading comprehension performance. Moreover, the more subjects tend to agree that strategies are effective for reading, the better their reading performance.

KEY WORDS: metacognitive awareness, reading comprehension, English as a foreign language.

RESUMEN

Este estudio investiga la relación entre los juicios de los estudiantes españoles universitarios acerca de su lectura en inglés como lengua extranjera y su competencia lectora en esa lengua. Un grupo de 66 hablantes nativos de español, estudiantes de segundo curso de Magisterio de la Universidad de Oviedo, participaron en el experimento. Se desarrolló un cuestionario para obtener información relevante sobre los juicios de los estudiantes acerca de su capacidad en la lectura en inglés como lengua extranjera así como sobre las estrategias de lectura silenciosa en esa lengua. Los resultados de los experimentos indican que los sujetos que son más conscientes de su capacidad lectora en inglés entienden mejor. Además, cuanto más de acuerdo están acerca de la eficacia del uso de estrategias en la lectura, mejor es su competencia lectora.

PALABRAS CLAVE: concienciación, comprensión lectora, inglés como lengua extranjera.

Efficient reading requires sophisticated bottom-up and top-down reading skills (e.g., Bernhart, 1991; Brown, 2001; Carrell, Devine, & Eskey, 1988; Lee, 1997; Nuttall, 1998; Nassaji, 2002; Saricoban, 2002), with readers drawing upon various strategies depending on their reading purposes and the type of text with

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which they are interacting. Vacca and Vacca (2005) defend that reading instruction should help students realize that reading is actually an interaction between the reader who draws upon background knowledge (schema) and language skills to process ideas, and the writer. This involves complex cognitive processing operations, especially when operating in a second language.

In this very complex process in which readers engage in decoding the writer's intended message, they use different reading strategies. As Carrell already (1989) stated «reading strategies are of interest for what they reveal about the way readers manage their interaction with written text and how these strategies are related to text comprehension». There is now general consensus about the importance of using a variety of reading strategies in order to read better. Some authors see reading strategies as conscious mental processes (eg. Cohen, 1990). Other authors see them as an action, or a series of actions that a reader employs in order to construct meaning in the reading process and solve comprehension difficulties (eg. Block, 1986, 1992; Garner, 1987; Hudson, 2007; Macaro, 2001; Macaro & Erler, 2008; Zhang, 2001).

Reading strategies include skimming, scanning, inferring, activating schemata, recognizing text structure, using mental imagery, visualizing, generating questions, monitoring comprehension, evaluating strategy use, etc. (Anderson, 1991; Carrell, 1989; Block, 1986; Cohen, 1990; Pressley, 2002; Zhang et al., 2008).

As Cohen (2003, 2007), Paris (2002), Zhang (2003) and Grabe (2004) point out, strategies themselves are not inherently good or bad, but they have the potential to be used effectively or ineffectively in different contexts. Moreover, metacognitive awareness of reading strategies is recognized as an important aspect of skilled reading (Carrell, 1998; Carrell et al., 1998; Cohen, 2007; Hudson, 2007; Wenden, 1998; White, 1999; Zhang, 2008). This point is considered in more detail in the next section.

1. METACOGNITIVE AWARENESS AND READING COMPREHENSION STRATEGIES

Research in the area of reading strategies has begun to focus on the role of metacognition. While previous research has focused primarily on strategy use, researchers are now examining readers' awareness of strategies during the reading process -their metacognitive awareness. Metacognitive awareness involves the awareness of whether or not comprehension is occurring, and the conscious application of one or more strategies to correct comprehension (Baumann, Jones, & Seifert-Kessel, 1993). Baker and Brown (1984) and Devine (1984) were among the first to investigate the relationship between metacognitive ability and effective language reading. Baker and Brown (1984) investigated several aspects of this relationship in first language reading and showed that if a reader is aware of what is needed to read effectively, then he is able to meet the demands of a reading situation more effectively. However, if the reader is not aware of his or her own limitations as a reader or of the complexity of the task at hand, then it is very difficult for the reader to anticipate or recover from difficulties.

There have also been studies in second and foreign language reading. These are not equivalent processes. Foreign language reading refers to the process of reading in a language used in a country other than one's own. This language does not play a social or institutional role in the linguistic community in which it is learned. Second language reading refers to the process of reading in a language used in the learner's own community even if it is not his/her mother tongue. This language plays a social or institutional role in the linguistic community in which it is learned. Devine (1984) investigated L2 readers' conceptualizations about their reading in a second language. Depending on the language units readers indicated they considered important to effective reading, the subjects were classified as sound-, wordor meaning oriented. Devine (1984) showed that meaning-oriented readers had good to excellent comprehension on a retelling task from an oral reading, while sound-oriented readers had poor or very poor comprehension. There was also a relationship between reading proficiency and the reading strategies chosen. Thus, less proficient readers tended to focus on reading as a decoding process rather than as a meaning-making process.

In another study of foreign language reading involving 278 French language students, Barnett (1988) investigated the relationships among reading comprehension, strategy use and perceived strategy use. Subjects had to answer a seventeen-item questionnaire in English about the types of reading strategies they thought best described the way they read. She concluded that students who use strategies (e.g. consider and remember context as they read) understand more of what they read than students who employ this strategy less or less well and students «who think they use those strategies considered most productive (ie. perceived strategy use) actually do read through context better and understand more than do those who do not think they use such strategies» (p. 156).

Some studies have shown that better readers are also better strategy users. Carrell (1989) for example, conducted a study to investigate the metacognitive awareness of second language readers about reading strategies in both their first and second language, and the relationship between their metacognitive awareness and comprehension in both first and second language reading. Two groups of subjects of varying proficiency levels including forty-five native speakers of Spanish enrolled at an ESL intensive program at a university, and seventy-five native speakers of English studying Spanish were involved in the study. A metacognitive questionnaire was developed to elicit relevant information from subjects to tap their metacognitive awareness and judgments about silent reading in their first and second language. Subjects were tested in both their first and second languages by reading a text in each language and then answering comprehension questions pertaining to the text. The findings of the study yielded some interesting results. For reading in the L1, local reading strategies such as focusing on grammatical structures, sound-letter, word meaning and, text details tended to be negatively correlated with reading performance. For reading in the L2, there were some differences between the Spanish L1 and the English L1 groups. The ESL group, of more advanced proficiency levels, tended to be more global (used background knowledge, text gist, and textual organization) or top-down in their perceptions of effective

and difficulty-causing reading strategies, while the Spanish-as-a-foreign language group, at lower proficiency levels tended to be more local or bottom-up.

Recent studies highlight the importance for all readers, native and nonnative, to be aware of the significant strategies proficient reading requires and point out how teachers can play a key role in increasing students' awareness of such strategies and in helping them become active readers. Thus, in their study, Sheorey and Mokhtari (2001) examine differences in the reported use of reading strategies of native and non-native English speakers when reading academic materials. Their study shows that there is a positive interaction between reported strategy use and reading ability. Participants were 302 college students (150 native-English-speaking US and 152 ESL students), who completed a survey of reading strategies. Results of the study revealed, first, that both US and ESL students display awareness of almost all of the strategies included in the survey. Secondly, both groups attribute the same order of importance to categories of reading strategies in the survey, regardless of their reading ability or gender: *cognitive strategies* (the deliberate actions readers take when comprehension problems develop), followed by *metacog*nitive strategies (advanced planning and comprehension monitoring techniques), and support strategies (the tools readers seek out to aid comprehension). Thirdly, both ESL and US high-reading-ability students show comparable degrees of higher reported usage for cognitive and metacognitive reading strategies than lower-reading-ability students in the respective groups.

Mokhtari and Reichard (2004) studied possible significant differences between first and second language readers in their metacognitive awareness and perceived use of specific strategies when reading for academic purposes in English. Three hundred and fifty college students (141 US and 209 Moroccan) completed an instrument designed to measure their metacognitive awareness of reading strategies. The results revealed that both student groups reported remarkably similar patterns of strategy awareness and reported usage when reading academic materials in English. Both US and Moroccan students demonstrated a moderate to high awareness level of reading strategies. This study shows that many of the strategies associated with skill reading are used uniformly by successful native and non-native speakers of English. This is inconsistent with claims that certain societies fail to promote this type of strategies. These authors think that the differences and similarities between second language readers and those reading in their first language, «have only been seen in terms of deficiencies but not in other, presumably more beneficial or even neutral ways» (2004:1).

Zhang and Wu (2009) carry out a study that assesses metacognitive awareness and reading-strategy use of Chinese senior high school students who are learning English as a foreign language. This was measured through their reported use of EFL reading strategies. The results showed that the students reported using the 3 categories of strategies they had been classified into at a high-frequency level: global (the intentional, carefully planned techniques by which learners monitor or manage their reading); problem-solving (the localized, focused techniques used when problems develop in understanding textual information); and support (the basic support mechanisms intended to aid the reader in comprehending the text). They were aware of multitude of reading strategies available for use. Both the main effect for strategies and the main effect for learners' proficiency were significant. The high-proficiency group outperformed the intermediate group and the low-proficiency group in overall strategy use; it also outperformed the intermediate group and the low-proficiency group in 2 categories of reading strategies: global and problemsolving; but no statistically significant difference was found among the 3 proficiency groups in using support strategies.

Given the above discussion, these studies on the matter show that there appears to be a strong relationship between reading strategies used by readers, metacognitive awareness, and reading ability. In essence, there is a positive interaction between reported strategy use and reading ability, and between use of strategies associated with skill reading and reading ability. Those readers who have better metacognitive awareness of their own use of strategies show greater reading ability.

The importance of metacognitive factors in comprehension as well as the fact that the study of these factors in foreign language reading is still scarce leads us to carry out a study to study in depth the relationship between Spanish university students' metacognitive conceptualizations or perceptions about reading in English as a foreign language and their reading ability in that language.

2. EMPIRICAL STUDY

2.1. METHODOLOGY 2.1.1. *Subjects*

One group of 66 native speakers of Spanish participated in the experiment. These subjects were studying the second year of Teacher Training at the University of Oviedo and were of intermediate proficiency level in English (B1 according to the CEFR).

2.1.2. Metacognitive questionnaire

A questionnaire was developed to obtain relevant information about subjects' perceived reading ability in English as a foreign language and about their metacognitive conceptualizations or awareness judgments about silent reading strategies in that language (see Appendix).

The design of the questionnaire requires the incorporation of a series of guarantees that show the validity of the instrument used and the items collected. Among them a thorough review of the literature and the use of the experience accumulated with an analysis of previous cases are essential. Likewise, the accuracy when it comes to defining the items in the questionnaire allows reducing ambiguity (Davis et al., 1989). The questionnaire was subjected to a pretest by means of personal interviews to three people responsible for English teaching and learning from the University of Oviedo. The final design of the questionnaire consisted of

two parts: Demographic information and 11 statements about silent reading strategies in English

Using a 1-5 Likert scale (1=strongly agree, 5=strongly disagree), subjects judged 11 statements about silent reading strategies in English. The questionnaire was handed out in English. Although we are aware of the fact that the use of the foreign language to answer the questionnaire items could affect results on the metacognitive questionnaire, we decided to hand it in English as it was presented as an activity in the English class session. Moreover, we explained and/or translated the meaning of everything in the cognitive questionnaire subjects said they did not understand.

These statements are divided into two groups:

- 1. The first group is made up of 6 items pertaining to readers' judgments about their perceived ability to read in English.
- 2. The second group is made up of 5 items about what readers' judgements about reading strategies that they feel make their reading effective.

2.1.3. Research hypotheses

The research questions addressed in this study concern the relationship between subjects' metacognitive conceptualizations about reading in English and their reading in that language.

We focus on intensive reading, that is, on a reading procedure that implies close study of short passages. Intensive reading involves learners reading in detail with specific learning aims and tasks. It can be compared with extensive reading, which involves learners reading texts for enjoyment and to develop general reading skills. We intend to study subjects' silent reading in English. We are not interested in the pronunciation of what subjects read but how they get the message that the writer intended and we want to study subjects' awareness judgments about silent reading strategies in English as these are different from the strategies readers use while reading aloud.

We have formulated two hypotheses.

First hypothesis: There is a positive relationship between reading ability awareness and reading comprehension performance.

Second hypothesis: There is a positive relationship between subjects' agreement about strategies' effectiveness and their reading comprehension performance.

2.1.4. Procedures

Subjects were tested in a normal English class session. In each session subjects first read the text in English and answered ten multiple-choice comprehension questions about a text, then responded to the metacognitive questionnaire about reading in English. The text was controlled for content schemata; it was on the general topic of «language». In addition the text was controlled for formal schemata: it was a compare/contrast type. Length, as well as lexical and syntactic complexity, were also controlled: the text was between 315 and 344 words in length. In addition, the multiple-choice comprehension questions for the text intentionally avoided testing «matching» information from the text and instead called for the drawing of inferences. The questions were intended to tap deep levels of text processing, based on careful reading and thorough comprehension of the text.

2.1.5. Indicators used

We will show next the measures used in the study. Following Malhotra and Grover's (1998) recommendations the constructs' internal consistency (or reliability) has been carried out, in each case, by means of the calculation of Cronbach's Alpha. A factorial analysis has also been used to establish its validity.

FACTOR 1: Subjects' judgments about their reading ability in English.

In order to create a construct that reflected the subjects' judgments about their reading ability in English, we followed Carrell's (1989) contribution. Nevertheless, our definitive construct included substantial modifications. The items that make up the construct used are measured by means of five-point scales. Those polled were asked to mark 5 if the affirmation stated did not agree at all or to a very small extent with their judgment and 1 if it did. The construct is made up of six items as it is shown in Table 1 below.

TABLE 1. ANALYSIS OF MAIN COMPONENTS OF FACTOR 1	
Ітем	
1. When reading silently in English, I am able to anticipate what will come next in the text.	.724
2. When reading silently in English, I am able to recognise the difference between main points and supporting details.	.565
3. When reading silently in English, I am able to relate information which comes next in the text to previous information in the text.	.822
4. When reading silently in English, I am able to question the significance or truthfulness of what the author says.	.702
5. When reading silently in English, I am able to use my prior knowledge and experience to understand.	.712
6. When reading silently in English, I have a good sense of when I understand something and when I do not.	.598
Cronbach's alpha.	0.778
Eigen-value.	2.877
% explained variance.	47.942

By means of Cronbach's Alpha the responses' internal consistency was calculated. The construct's validity, for its part, was proved by means of a factorial analysis. This indicated that the construct was an indicator of only one variable. Table 1 shows the main results.

The fact that all the items are part of an only factor implies that when, for example, a subject points out that he is able to anticipate what will come next in the text to a greater extent than others, he also shows a greater tendency to recognise the difference between main points and supporting details, to relate information which comes next in the text to previous information in the text, to question the significance or truthfulness of what the author says, to use prior knowledge and experience to understand and have a better sense of when he understands something and when he does not.

FACTOR 2: Effective reading strategies that make reading effective.

In order to create a construct that reflected the subjects' judgments about effective reading strategies that make reading effective, we followed Carrell's (1989) contribution. Nevertheless, our definitive construct included substantial modifications. The items that make up the construct used are measured by means of five-point scales. Those polled were asked to mark 5 if the affirmation stated did not agree at all or to a very small extent with their judgment and 1 if it did not. The construct is made up of five items (see Table 2).

By means of Cronbach's Alpha the responses' internal consistency was calculated. The construct's validity, for its part, was proved by means of a factorial analysis. This indicated that the construct was an indicator of only one variable. Table 2 shows the main results.

TABLE 2: ANALYSIS OF MAIN COMPONENTS OF FACTOR 2	
Ітем	
1. Relating the text to what I already know about the topic makes reading effective.	.510
2. Using a dictionary makes reading effective.	.691
3. Integrating the information in the text with what si already know makes reading effective.	.650
4. Focusing on the details of the content makes reading effective.	.860
5. Grasping the organisation of the text make sreading effective.	.801
Cronbach's alpha	0.746
Eigen-value	2.540
% explained variance	50.803

The fact that all the items are part of an only factor implies that when, for example, a subject points out that relating the text to what he already knows about the topic makes reading effective to a greater extent than others he also shows a greater tendency to consider that using a dictionary makes reading effective, integrating the information in the text with what he already knows makes reading effective, focusing on the details of the content makes reading effective and grasping the organization of the text makes reading effective.

2.2. Results of the empirical analysis

We will present next the results of the empirical work, together with their discussion. We study first the relationship between the subjects' perceived ability to read in English and their reading comprehension performance. The dependent variable is the subjects' reading comprehension performance and the independent variable the subjects' perceived ability to read in English.

Those subjects that are more aware of their reading ability in English understand the text better. As Table 3 shows, the relationship found is statistically significant at a p<0.01 level. The coefficient in this case is negative because of the way the independent variable has been defined. As we have explained above, in our 1-5 likert scale (1=strongly agree, 5=strongly disagree), students were asked to mark 5 if the affirmation stated did not agree at all or to a very small extent with their judgment and 1 otherwise, The consideration of the subjects' judgments about their perceived reading ability seems to explain approximately 9.8 per cent of the comprehension of the text. Hypothesis 1 is therefore validated.

TABLE 3: RESULTS OF THE REGRESSIO TO THE RELATIONSHIP BETWEEN PERC IN ENGLISH AND READING COMPREH	CEIVED ABILITY TO READ
Model 1	
Constant	6.848
	()
	28.610
	0,000
CNDMACL	684
	(334)
	-2.838
	(.006)
R ²	.112
R ² adjusted	.098
F	8.053
Sig. F	0.006
Ν	66

We also analysed the relationship between strategy effectiveness awareness and reading comprehension performance. The dependent variable is the subjects' reading comprehension performance and the independent variable the subjects' strategy effectiveness awareness. The more subjects tended to agree that strategies were effective for reading, the better their reading performance. The relationship found is statistically significant at a p<0.01 level. The consideration of the subjects' judgments about reading strategy effectiveness seems to explain approximately 9.1 per cent of the comprehension of the text. Hypothesis 2 is therefore validated. This is shown in Table 4.

TABLE 4: RESULTS OF THE REGRESSION ANALYSIS PERTAINING TO THE RELATIONSHIP BETWEEN EFFECTIVE STRATEGY AWARENESS AND READING COMPREHENSION PERFORMANCE			
Mode	2		
Constant	6.848		
	()		
	29.505		
	.000		
CNDMACL	.674		
	(.246)		
	2.743		
	(008)		
R ²	.105		
R ² adjusted	.091		
F	7.522		
Sig. F	0.008		
N	70		

3. DISCUSSION

This study investigates the relationship between Spanish university students' metacognitive conceptualizations about reading in English as a foreign language and their reading in that language. We have found that those subjects that are more aware of their English reading ability understand the text better. This result agrees with previous research works that show a positive interaction between reported strategy use and reading ability. We can then conclude that if a reader is aware of what is needed to read effectively, then his reading comprehension performance is better.

We have also found that the more subjects tend to agree that strategies are effective for reading, the better their reading performance. With respect to the distinction present in previous studies concerning the use of global strategies and local strategies (eg. Carrell, 1989), we did not find a distinction between global and local strategies in our study. The items relating to background knowledge, text gist and textual organisation were classified as global strategies while the items relating to word meaning and text details were classified as local strategies. Unlike previous studies, these intermediate proficiency level students did not tend to be more global in their perceptions of effective strategies. They tended to consider both global and local strategies equally effective.

Despite the relevance of these metacognitive results, they are to be taken as suggestive rather than definitive. Additional studies of metacognitive factors in foreign language reading are needed with a larger number of subjects of different proficiency levels in English.

From the results of this study we can conclude that it would be important to improve metacognitive comprehension in reading. If we want to improve readers' awareness, the first step is to find out what they are aware of in terms of reading strategies. The study reported in this article has made such a contribution to our knowledge. As we have mentioned previously, further research must follow with additional studies of foreign language readers' awareness of reading strategies and also with training studies on the most effective instructional means for teaching reading strategies. This instruction will help students appreciate why some strategies are useful and where and when to use them. It will help them understand the interactive nature of reading and the active role played by the reader,

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REFERENCES

- ANDERSON, N.J. (1991): «Individual differences in strategy use in second language reading and testing», *Modern Language Journal* 75: 460-472.
- BAKER, L. and A. BROWN, A.L. (1984): «Metacognitive skills and reading», in *Handbook of Reading Research* (eds.), P. D. Pearson, Longman: New York, 353-94.
- BARNETT, M.A. (1988): «Reading through context: How real and perceived strategy use affects L2 comprehension», *Modern Language Journal* 72: 150-62.
- BAUMANN, J.F., JONES, L.A. and SEIFERT-KESSELL, N. (1993): «Monitoring Reading Comprehension by Thinking Aloud. Instructional Resource No.1», ERIC Document Reproduction Services, ED 360 612.
- BERNHARDT, E. (1991): Reading development in a second language, Norwood, NJ: Ablex.
- BLOCK, E. (1986): «The comprehension strategies of second language readers», *TESOL Quarterly* 20: 463-494.
- (1992): «See how they read: Comprehension monitoring of L1 and L2 readers», TESOL Quarterly 26 (2): 319-341.
- BROWN, H.D. (2001): *Teaching by principles: An interactive approach to language pedagogy*, Beijing: Foreign Language Teaching and Research Press.
- CARRELL, P.L. (1989): «Metacognitive awareness and second language reading», *Modern Language Journal* 73: 121-133.
- (1998): «Can reading strategies be successfully taught?», Australian Review of Applied Linguistics 21: 1-20.

- CARRELL P.L., GAJDUSEK, L. and WISE, T. (1998): «Metacognition and ESL/EFL reading», Instructional Science: An International Journal of the Learning Sciences 26: 97-112.
- CARRELL, P.L., DEVINE, J. and ESKEY, D.E. (1988): *Interactive Approaches to Second Language Reading*, Cambridge: CUP.
- COHEN, A.D. (1990): Language learning: Insights for learners, teachers, and researchers, New York: Newbury House.
- (2003): "The learner's side of foreign language learning: Where do styles, strategies, and tasks meet?", International Review of Applied Linguistics in Language Teaching 41: 279-291.
- (2007): «Coming to terms with language learner strategies: Surveying the experts», in A.D. COHEN and E. MACARO (eds.), *Language learner strategies: Thirty years of research and practice*, Oxford, England: Oxford University Press, 29-46.
- DAVIS, F., BAGOZZI, R. and WARSAW, P. (1989): «User acceptance of computer technology», Management Science 35: 982-1003.
- DEVINE, J. (1984): «ESL readers' internalized models of the reading process», in J. HANDSCOMBE, R. OREM and B. TAYLOR (eds.), *TESOL* '83. Washington: TESOL, 95-108.
- GARNER, R. (1987): Metacognition and reading comprehension, Norwood, NJ: Ablex.
- GRABE, W. (2004): «Research on teaching reading», Annual Review of Applied Linguistics 24: 44-69.
- HUDSON, T. (2007): Teaching second language reading, Oxford, England: Oxford University Press.
- LEE, J.F. (1997): «Non-native reading research and theory», in K. BARDOVI-HARLIG and B. HARTFORD (eds.), *Beyond methods: Components of second language teacher education*, New York: McGraw-Hill, 152-171.
- MACARO, E. (2001): *Learning strategies in foreign and second language classroom*, London: Continuum International.
- MACARO, E., and ERLER, L. (2008): «Raising the achievement of young-beginner readers of French through strategy instruction», *Applied Linguistics* 29: 90-119.
- MALHOTRA, M.K. and GROVER, V. (1998): «An assessment of survey research in POM: from constructs to theory», *Journal of Operations Management* 16: 407-425
- MOKHTARI, K. and REICHARD, C. (2004): «Investigating the strategic reading processes of first and second language readers in two different cultural contexts», *System* 32(3): 301-476.
- NASSAJI, H. (2002): «Schema theory and knowledge-based processes in second language reading comprehension: A need for alternative perspectives», *Language Learning* 52(2): 439-481.
- NUTTALL, C. (1998): Teaching reading skills in a foreign language, Oxford: Macmillan Heinemann.
- PARIS, S.G. (2002): «When is metacognition helpful, debilitating, or benign?», in P. CHAMBERS, M. IZAUTE and P. MARESCAUX (eds.), *Metacognition: Process, function and use*, Boston, MA: Kluwer Academic, 105-121.
- PRESSLEY, M. (2002): «Comprehension strategies instruction: A turn-of-the-century status report», in C.C. BLOCK and M. PRESSLEY (eds.), *Comprehension instruction: Research-based best practices*, New York: Guilford, 11-27.
- SARICOBAN, A. (2002): «Reading strategies of successful readers through the three phase approach», *The Reading Matrix* 2(3): 1-16.
- SHEOREY, R. and MOKHTARI, K. (2001): «Coping with academic materials: differences in the reading strategies of native and non-native readers», *System* 29: 431-449.

- VACCA, R. T. and VACCA, J.A.L. (2005): *Content area reading: Literacy and learning across the curriculum* (8th ed.), Boston, MA: Pearson Education.
- WENDEN. A.L. (1998): «Metacognitive knowledge and language learning», *Applied Linguistics* 19: 515-537.
- WHITE, C. (1999): «Expectations and emergent beliefs of self-instructed language learners». *System* 27: 443-457.
- ZHANG, L.J. (2001): «Awareness in reading: EFL students' metacognitive knowledge of reading strategies in an acquisition-poor environment», *Language Awareness* 10: 268-288.
- ----- (2003): «Research into Chinese EFL learner strategies: Methods, findings and instructional issues», *RELC Journal: A Journal of Language Teaching and Research* 34: 284-322.
- (2008): «Constructivist pedagogy in strategic reading instruction: Exploring pathways to learner development in the English as a second language (ESL) classrooms», *Instructional Science: An International Journal of the Learning Sciences* 36: 89-116.
- ZHANG, L.J., GU, Y.P. and HU, G. (2008): «A cognitive perspective on Singaporean bilingual children's use of reading strategies in learning to read in variation in adult college students differing in reading ability», in T. CARR and B. LEVY (eds.), *Reading and its development: Component skills approaches*, San Diego, CA: Academic Press, 129-159.
- ZHANG, L.J. and WU, A. (2009): «Chinese senior high school EFL students' metacognitive awareness and reading-strategy use. Reading English», *British Journal of Educational Psychology* 78: 245-271.

APPENDIX

QUESTIONNAIRE-READING IN ENGLISH

Name: Age: Can you read any language(s) other than English and/or Spanish? Circle: yes no If yes, which language(s)? Other than the assigned readings, do you regularly read English materials outside the classroom? Circle: yes no If so, please check whichever apply: ——newspapers ——novels, literature ——popular magazines ——other (specify) Number the years of studying English:

Number the years of studying English:

The following statements are about silent reading in English. Please indicate the level of your agreement or disagreement with each statement by circling the appropriate number: 1 indicates strong agreement, 5 indicates strong disagreement.

	Strongly Agree	Agree	NEUTRAL	DISAGREE	Strongly disagree
	1	2	3	4	5
1. When reading silently in English, I am able to anticipate what will come next in the text.	1	2	3	4	5
2. When reading silently in English, I am able to recognise the difference between main points and supporting details.	1	2	3	4	5
3. When reading silently in English, I am able to relate information which comes next in the text to previous information in the text.	1	2	3	4	5
4. When reading silently in English, I am able to question the significance or truthfulness of what the author says.	1	2	3	4	5
5. When reading silently in English, I am able to use my prior knowledge and experience to understand the content of the text I am reading.	1	2	3	4	5
6. When reading silently in English, I have a good sense of when I understand something and when I do n	1 ot.	2	3	4	5

The best reader I know in English is a good reader because of his/her ability to

7. relate the text to what he already knows about the topic.	1	2	3	4	5
8. use a dictionary.	1	2	3	4	5
9.integrate the information in the text with what he already knows.	1	2	3	4	5
10. focus on the details of the content.	1	2	3	4	5
11. grasp the organisation of the text.	1	2	3	4	5