Effects of Dialogic Reading in the Improvement of Reading Comprehension in Students of Primary Education

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Abstract

Reading is an essential factor for success at school that requires certain skills and strategies of great complexity rarely taught in schools. Verbalization of comprehension strategies can be considered an effective measure in learning to read. The purpose of this study was to analyze the effect of a program of teaching reading strategies implemented through interactive dialogic reading groups in the learning of reading comprehension. A quasi-experimental comparison with pretest and posttest design between groups was used. A sample of 355 participants aged between 8 and 9 years aged was used. The results weigh the potential value of the program and support the development of teaching models that integrate dialogic reading practices as they facilitate learning of reading comprehension.

Keywords: learning, comprehension, teaching to read, interpersonal communication.

Resumen

La lectura es un factor imprescindible para el éxito escolar que requiere de unas habilidades y estrategias de gran complejidad que rara vez se enseñan en el ámbito escolar. La verbalización de las estrategias de comprensión puede considerarse una medida eficaz para el aprendizaje de la lectura. El propósito del presente trabajo fue analizar el efecto que un programa de enseñanza de las estrategias lectoras implementado a través de la lectura dialógica en grupos interactivos tiene en el aprendizaje de la comprensión lectora. Se empleó un diseño cuasi-experimental de comparación entre grupos con medidas pretest y postest. Se contó con una muestra de 355 participantes con edades comprendidas entre los 8 y los 9 años. Los resultados ponderan el valor potencial del programa y apoyan el desarrollo de modelos de enseñanza que integren prácticas de lectura dialógica en cuanto que facilitan el aprendizaje de la comprensión lectora.

Palabras clave: aprendizaje, comprensión, enseñanza de la lectura, comunicación interpersonal.

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Introduction

Reading comprehension has become one of the main areas of study in the educational landscape due to the complexity of the processes and skills involved and the importance it has in the acquisition of educational content. Currently the interest of research on how to improve reading achievement has been revived due to the high percentage of students who show weaknessess in reading skills (OECD, 2013).

Reading is a complex cognitive process that requires the use of high-level strategies: providing objectives, establishing and verifying predictions, controling what you read, making decisions about weaknesses in understanding that occur, recognizing and discriminating primary information to that which is secondary (Solé, 1992), which requires the active involvement of the reader.

Understanding as a process of meaning construction requires the teaching focus on the transaction of the reader with the text, which demands a dialogic reader to interact with the text, adopting dialogue with the author, asking questions, hypotheses, making inferences, adopting a critical approach, etc. However, the research on reading comprehension has focused on the relationship between reader and text as an individual process, as a reader faces a text trying to create meaning from their schemes of knowledge, considering the strategic actions as individual objectives, dismissing the potential that can be achieved if the act of reading becomes collective. In dialogic reading, comprehension includes both the individual component and the collective, so that by means of the inherent communication skills to discuss the text, interactions and sharing of strategies that contribute to the acquisition of reading and a higher degree of learning is encouraged (Agusti, Ballart, & Garcia, 2014). From this perspective, reading is a shared understanding that promotes critical thinking and is intensified through the interactions that exist between several people in connection with a text, in which the contributions of each are important, also meaning and significance to what is learned can be found, where connecting ideas with personal experience and social and cultural reality in which we live becomes easier (Aguilar, Alonso, Padrós, & Pulido, 2010).

This type of reading is considered one of the most valuable activities for young students in the development of spoken language, since in the early years, significant differences in the range of children's vocabulary appear which remain in time (Kendeou Van den Broek, White, & Lynch, 2009). Research so far allows confirmation of the benefits of dialogic reading in learning to read, which is possibly in the chain analysis that

facilitates reading comprehension (Goikoetxea & Martinez, 2015).

However, despite the evidence this type of reading shows in pre-reading acquisition, this practice has not been extended to students in later grades, which have not been given too many patterns and teaching guidelines for acquisition of reading comprehension strategies, being learnt in an unsystematic and intuitive way. The reason may be because there is a misconception that once the student has learned to read and has acquired the command of the decoder process automatically, he can understand the written message, when it has become clear that reading is more than deciphering the spelling and knowing the meaning of words and sentences of a text. Reading involves the ability to understand the ideas of the text, relate what readers know, draw conclusions and use them depending on the intended purposes: learning, studying, obtaining information, enjoying themselves, etc. which entails a process that should be taught. The lack of this teaching may be just one of the reasons that the students get such low marks in the different tests in which the degree of reading comprehension is evaluated. In 2012, about 20% of American students and 20% of Spanish learners grade 4 did not reach a basic level of reading literacy (OECD, 2013).

Reading comprehension is a complex process where the reader participates actively bringing into play a series of strategies and skills that allow them to interact with the meanings of the text, creating a mental model through a process of forming hypotheses and integration of propositions (Calero, 2011), which done jointly by several people verbalizing and pooling their own reading strategies, can contribute to achieving the necessary mechanisms for learning to be more effective.

The aim of this study was to analyze the effect that the intervention of a program focused on developing strategies based on comprehension dialogic reading has on improving reading comprehension.

Method

Participants

The study involved 355 participants aged between 8 to 9 ($M = 8.47$, $SD = 0.52$), of which 48.3% were boys and 51.7% girls, all belonging to four state and subsidized education centers in the province of Alicante. Two schools were randomly assigned to the experimental group (180 students) and the other 2 to the control group (175 students) leaving a state school and one subsidized in the experimental group, the same distribution in the control group. 180 experimental participants, 45.6% were male and 54.4% female, while of the 175 participants in the control group, 49.1% are men and

50.9% women. The contingency analysis (Pearson's chi square test) between status and sex showed no statistically significant differences 2 ($\chi^2 = 0.51$, $p > .05$). They all share the characteristic of being placed in a mid-level socio-cultural context.

Instruments

Battery Cognitive Assessment of Reading and Writing (BECOLE) (Galve, 2005). It assesses the main processes involved in reading at a lexical, textual semantic and syntactic sentence level. The tests used in this study assessed the semantic and syntactic sentence level. In all the tasks one point is awarded for success. This test has a reliability coefficient of Cronbach .95. Also composite reliability (FC) and average variance extracted (VME) with the data of this study was calculated. The results showed that reliability was elevated (FC = .91), and the extracted average variance was over 50 (VME = 58.59%) which means that a high percentage of variance is explained by the construct.

Effectiveness Test Reader (TECLE) (Cuadro, Costa, Trias, & Ponce de León, 2009). It consists of 64 items, evaluates reading effectiveness on a sentence-level using the basic decoding processes. The score is established by giving one point for each sentence correctly completed in the stipulated time. This test has a Cronbach's alpha .88. In addition to the data of this study through the composite reliability index (FC = .93) and average variance extracted (VME = 56.45%) it is possible to check that the test is reliable.

Test ACL-3 (Catalá, Catalá, Molina, & Monclús, 2001). It consists of seven texts with 25 items of different text types. It assesses reading comprehension by answering questions of a literal, inferential nature, reorganization of information and critical appraisal. One point is awarded for each correct answer. This test has a reliability coefficient of .80 Cronbach. In addition to the data of this study through the composite reliability index (FC = .89) and average variance extracted (VME = 64.57%) it is possible to check that the test is reliable.

Reading Awareness Scale (School) (Puente, Jiménez, & Alvarado, 2009). Items evaluated: reading planning, monitoring and evaluation. It consists of 56 items with three possible answers, which are scored with 0, 1 or 2. The test has a reliability coefficient of Cronbach 0.95. In addition to the data of this study through the composite reliability index (FC = .92) and average variance extracted (VME = 57.46%) it is possible to check that the test is reliable.

Procedure

In order to analyze the effect the intervention of a program focused on the development of the strategies based on dialogic reading has on improving reading comprehension, we compared acquiring the degree of understanding of written information in two samples of students aged 8 to 9, one receives intervention in the process of reading comprehension strategy instruction through interactive reading groups, and the other follows the same reading strategies teaching program but through the traditional teachings. Our hypothesis is that students belonging to the group which is organized into interactive teams in which its members verbalize and pool strategies established through a text, will obtain better performance in the development of reading comprehension.

The study used a quasi-experimental repeated pretest posttest design with a control group. Before and after implementing the intervention program, a battery of three assessment tools were applied to the experimental and control participants in order to measure the dependent variable that we hypothesized that the program would effect reading comprehension. It was created by education professionals (Hearing and Language specialists and teacher psychologists) previously trained, facilitating consistency in data collection.

The initial assessment of pupils was made collectively in regular classrooms in October and during school hours. Subsequently the intervention program was implemented (3 sessions of 45 minutes per week), the experimental students were divided into teams and the interactive control group individually according to the traditional classroom structure. In March, at which time the program had been fully implemented, the assessment was repeated in all students with the same instruments. The study complied with the ethical values required in research involving human beings (informed consent, the right to information, data protection, guarantees of confidentiality, non-discrimination, free and able to leave the program at any stage).

Intervention program

The program for teaching reading comprehension used narrative typology texts divided into 32 sessions of 45 minutes. It aimed at explicitly developing cognitive strategies that allow the reader to construct the meaning of the text from prior knowledge and acquire the skills necessary to regulate and control the whole process of understanding. Strategies that were selected were those that have recently been established as the most effective for improving reading comprehension in Spanish, such as: activating prior knowledge, identifying main ideas, inference building, the

use of graphic organizers, and comprehension monitoring itself (Ripoll & Aguado, 2014).

Initially, a collective narrative text was read so the teacher could explain the textual structure that characterizes this kind of writing. The graphic organizer employed was divided into three sections and in each of them different questions were formulated: Introduction (Where does it happen?, When does it happen?, What characters appear?), middle (what's the problem ?, how is the problem solved?) and outcome (what happens at the end?).

Subsequently, in a second session different collective reading strategies from other texts were employed which were structured in three stages: before, during and after reading. In each of these periods the following strategies were used:

— Before reading:

- State the purpose of reading (why are we reading?).
- Activate prior knowledge.
- Observe the key text: titles, chapters, artwork, etc.
- Make predictions about content.
- Questions and hypotheses.

— While reading:

- Pause and check the progress in understanding.
- Identify unfamiliar words from the context.
- Verify predictions made and make new ones.

- Complete the graphic organizer on the textual structure.
- Monitor one's understanding.
- Identify and summarize important information (macrorules).

— After reading:

- Check the assumptions made.
- Joint re-reading with great attention to fluidity, rhythm and expressiveness.
- Summarize the ideas of the text from the graphic organizer.
- Check the extent to which the set reading objective has been fulfilled.

From this work, a methodological model designed to foster communication processes between different students was implemented. To this end, five groups of heterogeneity were formed in relation to the different rates and learning levels, gender, social skills, degree of attention, etc.

Each consisted of four or five classmates and managed by a student tutor teacher who had previously met and explained the strategy they had to work in their group. The coordinator students were selected based on the command of the reading process and their outstanding communicative ability. Those responsible had different reading materials that the teacher had given them, which were divided into five sessions and aimed at developing the following strategies:

— Activating prior knowledge and making predictions based on titles, illustrations, characters, etc. for verification after reading short texts.
— Extracting the meaning of unfamiliar words and making inferences from contextual clues in small paragraphs.
— Underlining the main ideas and summarizing short texts via a proposition (macrorules).
— Completing the graphic organizer after reading small narrative texts (superstructure).
— Dividing a text into paragraphs and creating self questions to make headlines according to the most important ideas.

In the third session, each group began working one of the above strategies with a coordinator. Organizational dynamics initially involved explaining the work to be performed and with the provided material, reading a text aloud by one of the students, after a period of individual reflection. Later dialogic interaction, encouraging equal participation of all members of the group in relation to the given strategy was initiated. In the next session, group members were rotated going on to carry out another strategy. When all the groups had finished the work proposed by the various coordinators, a "tour" was completed, and the teacher then led a collective reading sesion in order to bring together all the learning acquired. The process was repeated until five "tours" were completed, concluding with a new joint group reading class in which they showed the different strategies that had been worked in each of the interactive groups. Finally self-assessment on the process undertaken and the learning acquired was valued. The control group received the same training program but with the difference that the students worked individually following the traditional reading model.

Results

In order to analyze the change in the variables studied, we carried out descriptive analysis (means and standard deviations) with scores on tests administered in the pretest, posttest phase and the pretest difference as well as analysis of variance with pretest scores (MANOVAs, ANOVA) and analysis of covariance (MANCOVAs, ANCOVAs) of the posttest-pretest differences in experimental and control variables measured before and after the intervention. These analyzes were performed with SPSS 20.0 program. In addition, the effect size (Cohen's d) was calculated (small < .50; 50-79 moderate, large ≥ .80). Pretest MANOVA results for all variables showed that before the intervention there were no significant differences between experimental and control groups, $F(1, 128) = 1.32$, $p > .05$. However, the results of MANCOVA

in pretest-posttest differences, using the pretest scores as covariates were significant $F(1, 128) = 2.51$, $p < .05$. This data shows that the intervention program had a significant effect. To analyze the change in each variable, descriptive of variance and analysis presented in Table 1 are performed.

Changes in understanding on a syntactic level

In order to analyze the effectiveness of the program in the development of reading comprehension on a syntactic level, we studied the changes in scores on the Test BECOLE. The pretest MANOVA showed no significant differences between experimental and control groups, $F(1, 128) = 2.64$, $p > .05$, however, the results of pretest-posttest MANCOVA, $F(1, 128) = 1.47$, $p < .05$, confirmed significant differences between the two conditions. With regards to the analysis of each variable independently in understanding syntactic structures a greater increase was observed in the experimental group ($M = 62$) than in the control group ($M = 13$). The results of the pretest ANOVA revealed no significant differences between experimental and control groups, $F(1, 128) = .10$, $p > .05$ at this stage. However, the pretest-posttest ANCOVA showed statistically significant differences between conditions, $F(1, 128) = 6.86$, $p < .01$. The effect size was small ($r = .24$).

This highlights an improvement in the ability to recognize written information attributable to the syntactic level intervention program.

Changes in understanding on a syntactic-semantic level

To analyze the effectiveness of the program in the development of reading comprehension on a syntactic-semantic level, we studied the changes in scores on the TECLE Test, showing a further increase in the experimental group ($M = .90$) than in the control group ($M = .18$). The results of the pretest ANOVA revealed no significant differences between experimental and control groups, $F(1,128) = .563$, $p > .05$ at this stage. However, the pretest-posttest ANCOVA showed statistically significant differences between conditions, $F(1, 128) = 18.10$, $p < .001$. The effect size was moderate ($r = .57$). This shows an improved understanding on a syntactic-semantic level as a result of the completion of the intervention program.

Changes in relational semantic understanding

In order to evaluate the program's impact on the relational semantic understanding of short texts, we analyzed the changes in scores on the Test ACL-3. The pretest MANOVA conducted with all four variables measured (literal, inferential, reorganizational and criti-

cal) showed no significant differences in the pretest phase between experimental and control groups, $F(1, 128) = 2.37, p > .05$. However, significant differences in the post-test-pre-test were found MANOVA, $F(1, 128) = 5.14, p < .01$, as in the post-test-pre-test MANCOVA, $F(1, 128) = 6.16, p < .001$. As shown in Table 1, in the understanding inferential variable, the experimental sample obtained an increase ($M = 0.58$) higher than that obtained by the control group ($M = 17$). The results of the pretest ANOVA revealed no significant differences between experimental and control groups, $F(1, 128) = .54$, $p > .05$ at this stage. However, data from the ANCOVA different pretest-posttest showed significant results, $F(1, 128) = 11.48, p < .001$. The size of the effect was moderate ($r = .52$). In the *understanding reorganizational* variable there was a significant increase of the experimental group ($M = .65$) compared with the control group ($M = .10$). The results of the pretest ANOVA showed that beforehand there were no significant differences between the two conditions, $F(1, 128) = .519, p < .05$, performing an ANCOVA of pretest-posttest differences which indicated significant differences, $F(1, 128) = 19.50$ $p < .001$, with the moderate effect size ($r = .63$). As in the previous two variables, in the case of *critical understanding* the experimental group exceeds its different pretest-posttest ($M = .67$) to the control

group subjects ($M = .18$). The pretest ANOVA showed that before starting the intervention there were no significant differences between the experimental and control groups $F(1, 128) =. 264, p > .01$, via an ANCOVA with pretest-posttest differences which also indicated significant differences, $F(1, 128) = 14.78, p < .001$. The effect size was moderate ($r = .60$). This data shows a significant improvement in the development of relational semantic understanding in text structures attributable to the intervention program, as evidenced by the significant increase of inferential, critical and reorganizational comprehension.

Changes in metacognitive reading skills

To assess whether the program was effective in developing metacognitive skills involved in learning to read, changes were analyzed in scores achieved in the reading awareness scale (School). The pretest MANOVA applied to all the variables of the test showed that there were no significant differences in the pretest phase between experimental and control groups, $F(1, 128) = 2.36, p > .05$. However, significant differences in the post-test-pre-test MANOVA were evident, $F(1, 128) = 3.52, p < .01$, as in the post-test-pre-test MANCOVA, $F(1, 128) = 4.63, p < .001$. As shown in Table 1, the variable in the experimental group

Table 1

Means and Standard Deviations in Reading Comprehension on a Syntactic, Semantic Sentence and Textual Level and Results of Analysis of Variance and Covariance for the Experimental and Control Groups

Variables	Experimental group (n = 180)						Control group (n = 175)						Experimental-control (n = 355)				
	Pre		Post		Pre-Post		Pre		Post		Pre-Post		Anova Pretest		Anova Pretest-Postest	Ancova Pretest-Postest	
	M	DT	M	DT	M	DT	M	DT	M	DT	M	DT	$F_{(1, 128)}$	d	$F_{(1, 128)}$	$F_{(1, 128)}$	d
BECOLE																	
Comprehension Orders	2.00	.97	2.45	.85	.45	.65	2.10	.87	2.33	.89	.23	.55	.34	0.19	.750	.41	0.36
C. Syntactic Structures	1.90	.85	2.52	.75	.62	.56	1.92	.82	2.05	.79	.13	.67	.10	0.12	4.37*	6.86**	0.24
TECLE																	
C. Syntactic-Semantic	1.65	.57	2.55	.24	.90	.44	1.75	.85	1.93	.35	.18	.39	.563	0.22	18.86***	18.10***	0.57
ACL-3																	
C. Literal	1.93	.80	2.18	.87	.25	.85	1.95	.89	2.17	.74	.22	.82	.12	0.15	.60	.40	0.23
C. Inferential	1.87	.74	2.45	.53	.58	.54	1.90	.81	2.07	.72	.17	.31	.54	0.18	8.66**	11.48***	0.52
C. Reorganization	1.60	.69	2.25	.79	.65	.44	1.68	.56	1.78	.86	.10	.65	.519	0.23	14.42***	19.50***	0.63
C. Critical	1.42	.53	2.08	.74	.67	.35	1.47	.65	1.65	.87	.18	.75	.264	0.19	13.27***	14.78***	0.60
ESCOLA																	
Planning	1.45	.63	1.90	.47	.45	.56	1.42	.73	1.57	.48	.15	.75	.105	0.23	6.85**	8.09**	0.52
Monitoring	1.47	.67	2.08	.56	.62	.67	1.50	.56	1.73	.66	.23	.84	.116	0.19	13.27***	9.48***	0.56
Evaluation	1.47	.83	2.13	.74	.67	.57	1.55	.86	1.77	.68	.22	.67	.588	0.16	9.21**	11.04***	0.58

* $p < .05$. ** $p < .01$. *** $p < .001$.

Table 2

Means and Standard Deviations of the Experimental Participants in Reading Comprehension on a Syntactic, Semantic and Textual Sentence Level According to Gender in the Pretest Phase and the Pretest-Posttest Difference

Variables	Experimental group Pretest				Experimental group Posttest-Pretest				Anova			Ancova	
	Children (n = 82)		Girls (n = 98)		Children (n = 82)		Girls (n = 98)		Pretest		Pretest-Postest	Pretest-Postest	
	M	DT	M	DT	M	DT	M	DT	$F_{(1, 128)}$	d	$F_{(1,128)}$	$F_{(1,128)}$	d
BECOLE													
Comprehension Orders	2.03	.85	2.07	.97	.37	.45	.31	.43	.35	0.22	.60	.25	0.25
C. Syntactic Structures	1.76	.71	2.05	.68	.37	.65	.38	.86	.54	0.24	.401	.216	0.27
TECLE													
C. Syntactic-Semantic	1.66	.46	1.74	.49	.47	.68	.61	.65	.330	0.25	.554	.811	0.31
ACL-3													
C. Literal	2.07	.54	1.82	.75	.19	.59	.28	.68	.664	0.23	.462	.15	0.21
C. Inferential	1.84	.76	1.98	.58	.43	.75	.35	.84	.70	0.22	.265	.170	0.28
C. Reorganization	1.66	.73	1.62	.62	.29	.53	.46	.86	.108	0.26	.492	.477	0.24
C. Critical	1.42	.52	1.46	.63	.42	.54	.43	.72	.131	0.14	.23	.44	0.19

* $p < .05$.   ** $p < .01$.   *** $p < .001$.

planning improves ($M = .45$), greater than that achieved by the control group ($M = .15$). The results of the pretest ANOVA revealed no significant differences between experimental and control groups, $F(1, 128) = .105$, $p > .05$ at this stage. However, data from the ANCOVA in the different pretest-posttest results indicated significant changes, $F(1, 128) = 8.09$, $p < .01$. The effect size was moderate ($r = .52$). In the variable *supervision* a change is detected in the same way of the experimental group ($M = .62$) compared with the control group ($M = .23$). In the pretest ANOVA the data revealed no significant differences between experimental and control groups, $F(1, 128) = .116$, $p > .05$ at this stage. However, data in the ANCOVA of the differences posttest-pretest indicated significant results, $F(1, 128) = 9.48$, $p < .01$, with the moderate effect size ($r = .56$). There was also a significant improvement in assessment tendentiously, with a greater increase in the experimental group ($M = .67$) than the students belonging to the control group ($M = .22$). The results of the pretest ANOVA revealed no significant differences between experimental and control group, $F(1, 128) = .588$, $p > .05$ at this stage. However, data from the ANCOVA in the different pretest-posttest there were significant results, $F(1, 128) = 11.04$, $p < .001$. The effect size was moderate ($r = .58$).

This data shows improved learning of reading strategies attributable to the intervention program implemented.

Influence of gender on the effects of the program

In order to explore whether the program had a differential effect regarding gender, that is, if it was more beneficial to boys or girls, or if the change brought about by the program was similar in both sexes, descriptive analyzes were performed (mean and standard) deviations and variance (ANOVA, ANCOVAs) in the pretest phase and the pretest-posttest differences by gender. The results are shown in Table 2.

Regarding syntactic comprehension, neither pretest-posttest MANCOVA, $F(1, 128) = 2.46$, $p > .05$, nor pretest-posttest ANCOVAs (see Table 2) showed significant differences by gender. In understanding a sentence level, neither pretest-posttest MANCOVA $F(1, 128) = 2.54$, $p > .05$, nor pretest-posttest ANCOVAS showed significant differences. Similarly, with respect to those on the reading comprehension and neither the posttest-prestest MANCOVA variables $F(1, 128) = 3.24$, $p > .05$, nor the pretest-posttest ANCOVAs evidenced differences. Consequently, none of the facets studied produced differential effects of the program on the basis of gender.

Discussion

The aim of this study was to test the effect that the intervention of a program aimed at the development of strategies based on compression dialogic reading features in the improvement of reading skills. The results obtained show that teaching through interactive groups improved the process of reading acquisition very significantly. This data is consistent with the statements of Gutierrez-Braojos and Salmerón (2012) who point out that schoolchildren can experience an improvement in the use of strategies if appropriate learning experiences are implemented. One reason for this achievement may be due to the contributions that joint reflection offers to personal contributions. In fact, there are several studies that have shown the positive effect of shared reflection on student learning (Coulson & Harvey, 2013).

Analyzing the different levels of understanding of written information, we found that the experimental group improved significantly compared to the control group in the comprehensive ability on a sentence syntactic level, reflecting that the program implemented can capture syntagmatic relations in the statement. It indicates that teaching strategies that enhance the identification of the overall sense using small texts promotes the understanding of textual meaning from the sentence level.

The students of the experimental group also achieved better results in the syntactic-semantic comprehension when reading efficiency was determined by the control of basic decoding processes. It can therefore be interpreted that the intervention implementated favored the decoding capability of features, letters, words and pseudo-words as well as the analysis of meaning to sentence level.

Regarding the relational semantic understanding, the data indicates that although the results of the experimental group compared to the control group are superior in the ability to access the literal information, there are no significant differences in this aspect between the two groups, which means that the teaching did not influence the memorising of the information in the text. However, the intervention program did contribute relevantly to the improvement of the other levels of reading comprehension. There were significant improvements in drawing inferences from the information in the text, indicating that the reader improved the ability to obtain implicit meanings in the text using prior knowledge and grammatical rules, in addition to the ability to add information to the text, construt more meanings and build a better understanding of it. Similarly, it improved reorganizational understanding, reflecting an increase in the ability to synthesize, summarize and rearrange ideas from the information

obtained, which results in a better comprehensive synthesis of the text. Improvements were also produced in the group taught using critical understanding, implying a greater ability to assess the content of the texts under a personal point of view, deduce, express opinions and judgments, differentiating facts from opinion, being able to integrate reading in personal experiences and cognitive schemata. That is, the program promotes the development of the comprehensive ability on a semantic level, allowing the reader to attribute meaning to what is new, organizing, interpreting textual information and integrating the new information learned in their schemes of knowledge.

These results coincide with the contributions of other studies (Stevens, Slavin, & Farnish, 1991; Uttero, 1988) on the effects of shared peer learning to improve the identification of the main ideas, offering greater concreteness on different levels of reading comprehension in this paper.

Regarding the development of metacognitive reading skills, data obtained by the experimental group show improvements in the various strategies of learning to read, which contribute to the awareness of the process of understanding. As a result, when analyzing the results we can observe significant improvements in relation to the different strategies involved in the understanding of a text: planning, supervising and assesment, indicating that students who participated in the program organized in interactive teams improved significantly compared to the control group: in the ability to define the objectives of reading, to make predictions and assumptions, to detect difficulties selecting the most appropriate strategies to overcome these, to verify whether these objectives are achieved, to identify at the end of the reading the degree of understanding obtained and reflect on the effectiveness of the strategies employed.

In short, the results analyzed as a whole, on the different levels of reading comprehension acknowledge the positive effects of the program, promoting the acquisition and the degree of knowledge that the reader of the available strategies has to understand a text, as well as the control exerted on these to optimize the process of understanding, which may be as stated by Cazden (1989) due to the fact that when subjects work together on a task, they can learn from each other by incorporating new strategies without the need for explicit instructional processes. In addition, like Olivares, Fidalgo and Torrance (2016) we believe that the comprehensive process will be enriched as students are helped to understand the different demands of the task and cognitive and self-regulation strategies are implemented that facilitate the cognitive processing involved in reading.

Empirical evidence indicates that learners who have difficulty

reading use scarce comprehension strategies, they are unable to activate the appropriate prior knowledge, they manifest deficiencies, not only in the construction of structured representation of the text, but also in making inferences and the use of metacognitive knowledge (Cano, Garcia, Justice, & Garcia-Berbén, 2014; Ripoll & Aguado, 2014), hence the importance of implementing teaching programs of reading strategies from the earliest school years.

In English there are reviews on the effectiveness that different types of programs have for learning comprehension strategies, among these are those centered on the generation of questions, those based on repeated reading systems, those in the generation of self-monitoring strategies, or performing writing activities to improve reading comprehension (Durukan, 2011), all of which show as a whole that improvements in reading comprehension of students with or without learning disabilities can be achieved. However, for Spanish speaking students there is an acute shortage in research on methods to improve reading comprehension (Ripoll, 2014). In addition, the different training programs that are implemented seem to grant students an individual role neglecting the powerful bastion of pooling thought aloud, so important in the development of reflective skills and analysis of ones own learning.

Dialogic reading, as verified in this work is a means of great value for improving understanding, since it allows an increase in interactions around reading activities, allowing the process of making meaning and creating meaning, in relation to the written text, to be shared. Learning reading strategies increases from exposure to prior knowledge that different classmates have on the textual information, from personal contributions and reflections made on each of the strategies implemented over the reading process, which favors making decisions about what reading strategies to apply, how to apply them effectively, when to apply each one knowledge that will enable the reader to identify, select and use the most appropriate strategies in each specific situation.

Through dialogic reading, it is possible to make the strategies explicit that both teachers and students themselves are using to construct the meaning of the text. The verbalization of comprehension strategies that occur in the interactive groups via contributions of different classmates through individual and collective reflection, can be considered an effective means in the acquisition of the learning reading strategies.

From the results of this study, on a practical level, we suggest the design of programs aimed at developing reading strategies, in particular towards those programs that contribute to the activation of

prior knowledge, identifying main ideas, inference building, the use of graphic organizers, and overseeing the process of understanding, through the creation of interactive groups that promote sharing, thoughtful analysis and thinking aloud. One limitation of this study is that a follow-up was not conducted to assess whether the results are maintained over time, so a relevant question for future studies should be to include follow-up actions monitoring whether the effects of the interventions made have continuity at higher levels, or whether on the contrary, if they lack continuity, fade.

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