A Comparative Analysis of the Effects of Small Group Versus Individual Pre-Reading Activities on the Reading Comprehension of College Students of Spanish

Lucía Osa-Melero
(osamelerol@duq.edu)
Duquesne University, USA

Abstract

This quantitative study compares the effects of two different types of pre-reading activities on the reading comprehension of upper-level college students of Spanish: group approach and individual approach. Texts used focus on socio-political issues in several Spanish-speaking regions. The assessment tools are multiple-choice tests and written recall protocols. The multiple-choice test measures comprehension of text main ideas. Multiple-choice results indicate that individual pre-reading activities significantly increase reading comprehension. When examining recall protocols from a cumulative perspective, text main ideas, supporting ideas, and minor details are integrated into one cumulative grade (average of the three levels of ideas). This grade shows that neither pre-reading treatment shows any significant difference. However, when focusing on a specific level, individual pre-reading activities prompt participants to recall a significantly higher percentage of supporting ideas and minor details while showing no significant increase for main ideas. Group work treatment falls short in its ability to benefit reading comprehension.

1 Introduction

Reading has been considered a critical source of input for foreign language (FL) and/or second language (L2) development (Bernhardt & Berkemeyer, 1988; Snow, 2002). As Tse (1996) asserts, "the more words a reader encounters, the more opportunities there are for language acquisition" (p. 17). Reading on particular topics with different genres facilitates language development, as vocabulary and ideas are repeated (Samuels, 1997). What is more, as Stoller and Grabe (1993) state, "reading a wide variety of topics and authors, in varied genres, provides students with exposure to new words, concepts and arrays of world knowledge" (p. 31), eventually leading to language acquisition. It can be asserted that the development of reading skills helps vocabulary and grammatical acquisition, cultural learning, and literacy development. This evidence supports the fact that many foreign language textbooks include reading assignments as central activities.

Despite the language learning accomplished through reading, texts in a FL still present the reader with many challenges. As Adams and Bruce (1982) note, when cultural backgrounds of the text author and reader differ, the reader may make inappropriate schemata connections. The lack of adequate schemata and strategies necessary to interact with the text presents a challenge to the comprehension process. This is why pre-reading and during-reading activities with the purpose of activating background knowledge are basic elements in most FL reading assignments (Osa-Melero,

2012). Activating adequate background knowledge through pre-reading activities before students face the authentic text is vital for successful reading comprehension.

2 Theoretical framework

2.1 Pre-reading activities

The underlying goal in all pre-reading strategies is to assist students in the process of reading comprehension (Searls, 1983). To be successful, the pre-reading process must tap into a reader's prior knowledge, thereby bridging the gap between the known and unknown in order to enhance reading comprehension (Mallow & Patterson, 1999). The pre-reading stage involves several processing techniques focusing on meaning such as skimming, scanning, predicting, and hypothesizing.

Past research suggests that encouraging readers to activate and make connections between their prior knowledge and the text can facilitate reading comprehension (Denner, Rickards, & Albanese 2003; Lee & Riley 1990). As Afflerbach (1990) confirms, readers with prior knowledge are more likely to construct the main idea of a text than readers with little or non-existent prior knowledge. If the reader lacks background experiences and adequate knowledge of language, it is reasonable to anticipate that reading comprehension will become a daunting task. Whereas researchers working on theoretical models of reading focus their attention on the nature of the reading process, pedagogical views focus on reader preparation prior to encountering the text. Researchers such as Arcuri (1990), Denner et al. (2003), Eskey (1997), and Lee and Riley (1990) assert that pre-reading activities are a great tool for activating a reader's background knowledge, thus increasing the quality and quantity of reading comprehension. Even when pre-reading activities fall short in providing all the information needed by the student to fully understand a text, the amount data provided helps compensate for literacy differences among the student audience (Jenks, 2002).

3 Individual learning approach

The individual learning approach is based on the assumption that the student is an independent learner who does not need to interact with other students to learn. The underlying principles are based on the individualistic teaching method described by Johnson and Johnson (1999). Johnson and Johnson's individualistic approach highlights that "individuals work by themselves to accomplish goals unrelated to, and independent from the goals of others" (p. 7). Whether or not the learner achieves the goal of a task has no influence on whether other classmates reach their goals. In an individualistic lesson, students work at separate desks with no classmate interaction and are encouraged to focus on their own work. Students receive support only from the instructor when needed. The classroom atmosphere becomes a contest in which students who correctly volunteer to participate are better awarded. In an individualistic lesson, the instructor lectures on the content and students complete follow-up activities. The main advantage of the individual practice is the opportunity for students to silently focus on the task, enabling them to engage with the assignment in a private manner. The main drawback is the absence of social and linguistic interaction, as well as the absence of knowledge exchanges. Within an individualistic situation, most students feel motivated to compete, although the structure of the learning approach does not require such competition. Until the late 1990s, competitive and individualistic lesson plans strongly dominated the U.S. educational system (Johnson & Johnson, 1999).

Studies about the individualized approach usually contrast it to the cooperative approach. One of the studies that first compared two different teaching approaches to reading was Frances and Eckart's study (1992). Their study demonstrated that reciprocal teaching[1] improved reading comprehension of 7th graders in comparison to the individual approach. Two years later, Westmyer's (1994) study reveals that group learning and individual learning equally impacted college students' learning of selected sociology concepts. A recent study by Klubnik and Ardoin (2010) compared the effectiveness of a reading intervention package administered to English-speaking students in-

dividually and in trios. Results showed parallel gains across both treatments. Neufeld's study (2005) confirms that several individual reading comprehension strategies, such as individual pre-reading activities, have been listed as teachable and beneficial for students' reading process. However, no empirical results to prove the effectiveness of such strategies are provided.

4   Traditional group approach

As the importance of group-work skills in professional life has become widely recognized, more and more courses are including group projects in their curricula. As Yan and Kember (2004) assert, "group projects expose students to the challenges of working in groups and assist them in enhancing group work skills" (p. 419). Traditional group work is definitely used as a means of learning at all levels in most educational systems (Chiriac & Granström, 2012). Traditional groups can be described as groups of students sitting together with a predetermined assignment; one of the students has the role of a leader and is in charge of turning in the completed assignment and organizing the discussion, even though usually the leader has not been informed of how to implement his/her leadership. Group members are open to organize their task structure the way that suits them the most. There is a time limit to complete the assignment. The instructor's role is to control that every student finishes the assigned work and to clarify doubts and/or concerns that might interfere with the workflow. Traditional groups identify with informal learning groups. Davis (1993) has described informal learning groups as the improvised temporary clustering of students within a single class session. According to Davis' (1993), informal learning groups can be initiated by asking students to turn to a neighbor and spend two minutes discussing a question the instructor have posed. The instructor can also form groups of 3 or 4 students to solve a problem or pose more challenging questions. The instructor can organize informal groups at any time in a class of any size to check on students' understanding of the material and to give students the opportunity to share what they are learning, or to provide a change of pace. Traditional groups can also be compared to Oxford's (1997) description of interaction groups, which follow the same format as traditional groups and encourage interaction-producing tasks with the role of a teacher as a facilitator. Several authors, such as Begeny et al. (2012), Johnson and Johnson (1999), Neff (2011), and Poteau (2011), have worked on defining the objectives, benefits, and drawbacks of group work, converging on the main objective: enhancement of social kills, oral communication, and knowledge exchange. The main advantage of the small group setting is that it provides a non-threatening context for practice (Neff, 2011). Most students would agree that it is less stressful to practice with a few peers than it is to speak in front of the entire class and/or the teacher. The most common second advantage is that group activities are flexible and can be easily adapted to handle limitations on time and space. However, group work also presents limitations. Any barrier that a student may encounter in the language classroom could appear in the group. For instance, if the classroom atmosphere is negative, students will be less forthcoming with their peers and will benefit less from the group activities.

Studies, such as Begeny et al. (2012), have demonstrated the positive effects of small-group interventions designed to improve English-speaking students' reading fluency. In the same line of research, Stevens and Slavin (1995) assert that many studies regarding L1 learning proved the effectiveness of small group work on students' reading comprehension. Regarding content achievement and self-esteem, Lampe, Rooze, and Tallent-Runnels' study (1996) conclude that group work obtained superior results in comparison to individual approach when applied to a group of fourth graders. Studies such as Begeny et al. (2012), Klubnik and Ardoin (2010), and Stevens and Slavin (1995) have used the group treatment with the hope of increasing participants' reading comprehension.

Although traditional groups are usually included in the big umbrella term "cooperation," it is vital to highlight that the actual cooperation in the traditional groups is minimum. The cooperative approach, according to Johnson and Johnson (1999), is the act of working together to accomplish shared goals while seeking outcomes that are beneficial to themselves and to all other group members. Each learner is held accountable for his/her own learning and motivated to increase the learn-

ing of others. Cooperative activities are usually highly structured and they require teacher preparation to adequately implement them. Two of the key components of cooperative lessons are guidance and structure when both preparing for and conducting the lesson. Unfortunately, these components are usually inadvertently absent in in-class group tasks, and thus could negatively affect students' performance. As Johnson and Johnson (1999) state, there are different types of group settings and some of them might be less beneficial to the learning process than others. Chiriac and Granström (2012) assert that there is a tendency for instructors to include under the same pedagogical approach the terms "work in a group" and "work as a group." Working as a group refers to working cooperatively and working in a group entails working individually within a group of classmates.

The fact that the group approach seems a more open approach with fewer restrictions than a cooperative learning approach made teachers view it as a practical tool in the classroom. Group approach tends to be easier and faster to implement in a fast paced class. As the instructional focus of FL classes has shifted from teaching discrete aspects of language to developing students' communicative competence, the group approach used in this study has been increasingly used in the FL classroom (Fushino, 2010). Few language teachers would dispute the importance of group work in their classroom to develop language proficiency (Neff, 2011). In fact, group work is a prerequisite when the objective of the course is to enhance students' linguistic interaction.

5   Current study

The effectiveness of traditional group work in the pre-reading phase is an area that has been fairly explored in L1, but has not yet been explored to much extent in L2. The focus of this quantitative study is to determine whether traditional group work pre-reading activities increase L2 student reading comprehension in comparison with the individual pre-reading activities.

6   Research design

The following table shows the timeline of the steps of the study in chronological order.

Table 1. Study timeline

Week of the semester	Researcher Preparation	Instructor preparation	Pre-reading phase	Reading phase (at home)	Reading comprehension assessment
1st		Review differences between group practices and individualistic pre-reading practices. Establish a group work protocol to be followed by the instructor			
2nd	Inform study participants about project and provide specific instructions. Participants sign consent and reading time limit commitment form.	Remind students about the difference between the two pre-reading practices. Remind participants to sign reading time limit commitment form.	Individual	Students read text 1 adhering to reading time limit.	Recall protocol Multiple-choice
6th		Prepare for the group work lesson. Remind participants of reading time limit.	group work	Students read text 2 adhering to reading time limit.	Recall protocol Multiple-choice
10th		Prepare for individual lesson. Remind participants of reading time limit.	Individual	Students read text 3 adhering to reading time limit.	Recall protocol Multiple-choice
14th		Prepare for group work lesson. Remind participants of reading time limit.	group work	Students read text 4 adhering to reading time limit.	Recall protocol Multiple-choice

6.1 Participants

Participants included 61 university students divided into three sections of fourth-semester Spanish enrolled at a public university in the southwestern United States. The group of participants consisted of 35 females and 26 males. Students' age ranged from 18–23. A different instructor was assigned to each different section. All participants were native English speakers and were taking the course to fulfill their FL general education requirement. Fifty-three of the students admitted to be strongly interested in Spanish language and planned to minor in Spanish. The three instructors in the study, all with extensive experience teaching experience, confirmed the use of group and

individual work in their daily classes. Students were also familiar with both types of pre-reading practices.

6.2   Texts

The texts used in the study contain information related to four important socio-political events that changed the social dynamics of four Spanish-speaking countries and/or regions. The texts are included in the textbook *En contexto: Manual de lecturas y películas* (García, Osa-Melero, Sacchi, & Theodoridou, 2007). Text 1, "Después de la represión: España en los años ochenta," discusses the relevance of the effects of Franco's dictatorship. The second text, "Los años de la dictadura en Argentina y las marcas del terror," focuses on the impact of the Argentinean dictatorship on Argentinean society (1976–1983). The third, "Colombia, un país fragmentado," focuses on Colombia's issues with guerrillas, government and paramilitaries. The fourth text, "El Che Guevara," explains the origins of Ernesto Guevara and the trajectory of his revolution against capitalism during the 1950s. The texts range from 850–1150 words, and each offers an average of 8 glossed words and corresponding English translations at the bottom of each page and two representative pictures related to the topic. The average of main ideas for texts prepared individually (Texts 1 and 3) was 12.5, as well as for texts prepared with the group approach (Texts 2 and 4). The average of supporting ideas for texts prepared individually was 21.5, whereas texts prepared using the group approach was 21. Ultimately, the average of minor ideas for texts prepared individually was 25, whereas the average for minor details prepared with the group approach was 24.5.

All texts were written entirely by the textbook authors specifically for fourth-semester students at this university, and thus maintained a consistent and appropriate level of linguistic difficulty.

6.3   Piloting texts and measurement tools

To determine whether the four texts were equally challenging in terms of content and grammar, in the semester prior to the data collection, a randomly-chosen fourth-semester Spanish class from a multi-section course was chosen to pilot the difficulty level of the texts and assessment tools. The 23 students comprising the pilot class were not by any means related to the study or the instructors in the study. These students completed the individual pre-reading activities in class and read the text at home. This used to be the common procedure for most of the fourth-semester classes in the department. After reading the texts at home, students completed a short questionnaire about their perception and motivation towards the text topic. The results revealed a high level of reader motivation among participants towards the themes presented in the four different texts. 97% of the participants admitted to be motivated to read the texts. Students also filled out a short questionnaire about the linguistic and content complexity of the texts using a scale from 1 to 3, with 1 being very accessible, 2 accessible, and 3 non-accessible. Results conveyed that approximately 86% of the students (20 out of 23 students) considered that the four texts contained accessible language and accessible content. Therefore, none of the texts seemed to be noticeable for its language and content difficulty in comparison with the rest of the texts. Following the questionnaire about the texts, students completed the reading comprehension multiple-choice test, and lastly, they filled out a short questionnaire about the complexity of the nine multiple-choice test items. Participants rated the content of each multiple-choice question from 1 to 3, with 1 being easy, 2 average, and 3 difficult. They also shared their thoughts about the language clarity of the questions and items. Researcher used their feedback to balance the difficulty level of the tests. Multiple-choice tests were comprised of nine questions rated as average by at least 95% participants (22 out of 23 students). Seven of these questions targeted main ideas, and two focused on supporting ideas. Participants' feedback was a crucial tool to improve clarity and quality of the questions, answers and distractors.

6.4   Pre-reading activities

The textbook *En Contexto: Manual de lecturas y películas* (García et al., 2007) contains a set of six pre-reading activities. These activities had generally been used as the default pre-reading activities for fourth-semester Spanish classes in the program. This same set of activities was used in the study with both treatments. The format of the activities is the following:

1. Map. Students find the map of the country or region that they will read about. Students locate the main geographical sites.
2. Nowadays. Students fill out nine boxes related to cultural components of the country they are about to study with prior knowledge. Boxes include these categories: history, politics, music, cuisine, sport, art, famous people, society and life style, and other facts.
3. Historical information. Students read a brief introduction to the text and answer ten true/false comprehension questions.
4. Connecting with my country. Students pinpoint similarities and differences between particular aspects of the region they are about to study and the USA.
5. Your imagination. Students creatively write a paragraph about a cultural aspect discussed in the text.

6.5   Implementing individual pre-reading activities

The individual approach used in this study consists of the same characteristics of the individualistic approach described by Johnson and Johnson (1999). The only significant difference is the degree to which the instructor is involved in the students' work. Johnson and Johnson (1999) state, "within the individualistic learning situations, the teacher is the major source of assistance, feedback, reinforcement, and support." (p. 154). In this study, the teacher merely controls class dynamics and assists students only upon request. The weight of the task is on the student.

Students were instructed to use separate individual desks to complete the textbook pre-reading activities for Text 1 and Text 3. Instructors reminded the participants that interaction between students was not allowed, although they had the option to ask questions to the instructor as needed. Most of the questions asked by the students to the instructors concerned vocabulary and grammatical structures. Each instructor recalls answering only two to three questions related to content. Most of the students fully used thirty minutes to complete the whole set of activities. As a wrap-up to the individual pre-reading phase, students shared their responses aloud, while instructor guided the correction process. After completion, students turned in the activities to their instructor who would award participation points based on completion and correctness of the assignment.

6.6   Implementing group work pre-reading activities

Prior to the implementation of the group work treatment, instructors were reminded of the purpose and constituents of the group work practice:

1. Confirm that students participate orally and collaborate within the allotted time.
2. Act as a guide and supervisor of the group work, while offering feedback to improve the quality of the information exchanged.
3. Confirm that students complete activities and achieve basic knowledge of the text topic.

Researcher was an observant in the class to confirm the instructor's role and assist if necessary. The preparation for Texts 2 and 4 followed the group work approach. Instructors randomly divided the classes into groups of three, invited students to open their textbook and instructed them to begin the pre-reading activities assignment. Spanish was mostly used in the group discussions. From the researcher's observation, the groups were well engaged in the activities, oral exchanges were constant, and partnership was noticeable. The three instructors walked around the classroom listening to oral exchanges, and offering feedback when needed. Few questions were asked, and again, these questions were solely focused on vocabulary and grammatical structures. Most groups took thirty-five minutes to complete the set of activities. With the purpose of increasing participa-

tion within the groups, instructors agreed that all participative members would receive 10 points towards a 100 points chapter quiz. More than 2 interventions in the group would grant the 10 points. One intervention would grant 5 points and none intervention would grant 0 points. One volunteer per group would write down the number of instances that each group mate participated and turned it in to the instructor. After completion, as they did when the individual treatment was implemented, students turned in the activities to their instructor who would confirm that students completed the assignment to offer a completion grade.

6.7   Data collection instruments

Two instruments were used to measure comprehension: written recall protocols and multiple-choice tests. The recall protocol has been the most common method employed to test reading comprehension (Bernhardt, 1991; Sharp, 2002). The assumption behind the recall protocol, as Sharp (2002) indicates, is that "it indicates something about the readers' assimilation and reconstruction of text information and therefore reflects comprehension" (p. 7). Recall protocols have been frequently used in L2 contexts (Bernhardt, 1991; Lund, 1991). Johnston (1983) describes the recall protocol as "the most straightforward assessment of the result of the text-reader interaction" (p. 54), due to the fact that all the information recalled must be generated, not just selected, by the learner. Nowadays, the preference toward recall protocol is still noticeable, although the time-consuming scoring process may create some resistance from instructors. To make the scoring of recall protocols more efficient, the researcher created an idea template for each text. The researcher, in cooperation with a second rater, created the templates by first dividing the text into idea units, the smallest number of words necessary to express a thought or idea (Johnson, 1970; Meyer, 1975). Carrell (1985), in a more detailed description, explains that an idea unit "consists of a single meaningful clause (main or subordinate, including adverbial, and relative clauses)" (p. 737). Both the researcher and second rater then independently determined the importance/significance of each idea unit in the texts. A value of 3 was given to main ideas of the text. Main ideas are considered the propositions asserting a basic and fundamental idea of the text. The main ideas logically aligned will form the summary of the text. The information they add to the text is essential and indispensable. A value of 2 was given to supporting ideas. These are the propositions that support, give evidence and/or justify the main generalization. Its importance in the text is subordinate to that of the main idea. The information it adds to the text usually accompanies the main idea. The supporting idea is somewhat necessary to rebuild the summary of a text. A value of 1 was given to supporting details. These are the smallest unit of the text subordinated to supporting and main ideas. The information these add to the whole text is the least important, a mere detail. The supporting detail is not essential to rebuild the summary of a text.

As Bernhardt and James (1987) state, the resulting scoring templates demonstrate how "the text is divided into a hierarchy of ideas with certain ideas of more central importance to the text than others" (p. 78). A reliability analysis was then performed to assess the internal consistency of the recall protocol scoring templates between the two raters. The inter-rater and intra-rater reliability of idea unit values was computed using the Cronbach's alpha formula. To check the intra-rater reliability, the researcher evaluated the idea unit values at two separate points in time. The two-week period between both assignments allowed the researcher to forget the values given during the first round:

Table 2. Inter-rater and intra-rater reliability

Texts	Inter-rater reliability	Intra-rater reliability
	Cronbach alpha (r)	
1	0.70*	0.84*
2	0,72*	0.84*
3	0.74*	0.79*
4	0.65	0.74*

Note> *.70 is generally considered a satisfactory value of alpha (Nunnally, 1978)

Since .70 implies an adequate degree of consistency, the coefficients for the intra-rater reliability for Texts 1, 2, and 3 display an acceptable degree of reliability. For Text 4, the value of alpha was .65, which is below the standard. In cases of idea unit value discrepancies, the researcher and second rater worked collaboratively to arrive at a consensus. In the case of Text 4, the researcher and second rater discussed every idea that led tp discrepancies between them to compensate for the lack of significant inter-rater reliability, concluding in common agreement on all the assigned values. The resulting idea unit significance values were then assigned to each scoring template.

Inter-rater reliability coefficients for the recall protocol scoring process were also estimated. During the study, the researcher and second rater independently graded the same randomly chosen eight recall protocols (2 from each text). These were scored according to the presence or absence of the idea units represented in the scoring template. Comprehension was measured not only by the number of idea units recalled, but also by the importance/value of each idea unit recalled. The resulting reliability coefficients, ranging from 0.74 to 0.84, demonstrated the consistency between the scores.

The second measurement tool, a multiple-choice test, has been used extensively as a comprehension measurement device across multiple disciplines due to its practicality and objectivity. As Haladyna (2004) asserts, "the multiple-choice format is generally acknowledged as the most useful and efficient way to measure knowledge" (p. 6). In fact, today, as Nicol (2007) confirms, multiple-choice tests are increasingly used in higher education to supplement current assessment practices. Multiple-choice tests play an important role in measuring key aspects of constructs, such as reading, writing, and critical thinking. Nonetheless, the use of the multiple-choice test as a reading assessment tool has often been criticized for being associated with passage independence. As Freedle and Kostin (1999) point out, "examinees do not need to comprehend the texts accompanying the test items in order to answer the items" (p. 3). Regardless of the criticism, researchers continue to use multiple-choice as the sole comprehension assessment task for reading (Brantmeier, 2005) because of its noticeable advantages. As Wolf (1993) states, "multiple-choice tests were the most popular means of assessing subjects' reading comprehension because the task is familiar to subjects and easy to score" (p. 474). Overall, multiple-choice tests are a very effective testing format for reading comprehension, as long as the item writers are well-trained and the items are quality-assured. Multiple-choice tests are also known as time savers during the scoring process (Nicol, 2007). Piloting an assessment tool before implementation improves quality and validity of its scores. In the present study, the feedback offered by the participants who participated in the pilot study increased the quality and efficacy of these tests, advancing the validity of the scores. To understand the complete picture of the reading comprehension outcome, a variety of assessment tools are needed (Bernhardt, 1991). For that reason, both multiple-choice tests and written recall protocols were employed in this study.

6.8 Reading phase

Following the pre-reading activities, students were reminded to silently read the text at home and avoid any outside research about the text topic. The decision to read at home was based on lack of time. Since this study was performed on ongoing classes with an already established standard syllabus, the reading assignment had to be completed at home to save class time for practice and activities.

Silent reading was instructed per Bernhardt's (1983) recommendation to increase reading comprehension: "when students do silent reading […] students can focus their meta-cognitive capacities on the message, rather than on how words are pronounced." (p. 113). The results of Bernhardt's (1983) study on the reading comprehension of intermediate students of German demonstrate that "silent reading is the most advantageous mode for the instruction of reading comprehension" (p. 113). Additionally, as Saito, Horwitz, and Garza (1999) state, silent reading is done privately and with an unlimited opportunity for reflection and reconsideration.

Instructors encouraged students to fully read the text 2–3 times and to re-read those paragraphs requiring closer attention. Time allotted for the reading was 30–35 minutes. Students were asked to sign a commitment form in which they attested that their reading time at home did not exceed 35 minutes, which was enough time for most of the participants. All students turned in the signed commitment form and complied with the reading guidelines. The importance of following the project guidelines was emphasized to students several times during the project. Following the home reading, students came back to class the next day to complete the assessments. In line with regular practices, students were allowed five minutes to re-read the passage before the recall protocol, given that "re-reading is an effective method for increasing comprehension" (Bernhardt, 1983, p. 111).

6.9 Scoring

After briefly re-reading each text in class, participants were asked to write a thorough summary in their L1, focusing on communicating the ideas rather than on grammatical structures, chronology of events, or stylistics. As Swaffar, Arens, and Byrnes (1991) recommend, writing the protocol in the student's native language helps to reveal "how the reader's logical manipulations interact with their recognition of textual vocabulary and syntax" (p. 164). Furthermore, students' lack of proficiency in L2 can hinder their ability to communicate ideas effectively. In the same line, Wolf (1993) states that "even at the very advanced target language experience, a learner's ability to demonstrate what they understand suffers when assessed in the target language" (p. 476). The recall protocols took place immediately after re-reading the passage in class, because, as Pressley & Afflerbach (1995) assert, "the greater the temporal distance between the event and report, the greater the chance for embellishment or decay of the information" (p. 3). Sakai (2009) also recommends "administering the recall protocol immediately after students re-read the text and prior to the multiple-choice test in order to avoid the confounding/helping effects of multiple-choice questions" (p. 3).

Two different methods for organizing the recall protocol scores were used. Both scoring processes were based on the division of the text into idea units. The first scoring approach, based on Johnson's (1970) scoring system, treats the recall protocol idea units as individual items to arrive at a cumulative total score. In accordance with Johnson's approach, each idea unit recalled by the student was identified and coded according to the three different levels of significance previously described. The points from the idea units recalled by the student were then added up into a cumulative score for each of the four texts. The advantage of this scoring system is that it is simple and straightforward: identify the idea units recalled, add up the points, and then turn it into a cumulative score. The second scoring process, used in a study by Lund (1991), exclusively focused on each of the three different idea unit levels in isolation, concluding with three different results per

student, a specific score for the level 3 idea units recalled, another score for level 2, and still another one for level 1.

Items in the multiple-choice tests were graded against the test key. Correct answers received one point, while incorrect answers received zero points. Scores from both multiple-choice tests and the recall protocols were converted to percentages for the quantitative analysis. For Johnson's cumulative scoring process, the points of each idea unit recalled were added up and divided by the total points of all the idea units present in the text. In Lund's scoring process, the same procedure was applied for each separate level of idea unit's significance: main ideas, supporting ideas, and minor details. After grouping the scores from the three classes, the average score was calculated based on a total of 61 participants. Later, the scores obtained from Texts 1 and 3 were combined and named "individual," given the fact that both texts were prepared using the individual approach, while scores obtained from Texts 2 and 4 were joined into the group "group." To answer the research question, a repeated measures one-way analysis of variance (ANOVA) was conducted.

7   Results

7.1   Recall protocol scores

The research question asks whether or not student reading comprehension scores vary depending on the type of pre-reading activities implemented. Table 3 shows descriptive statistics of the recall protocol performance of the students.

Table 3. Recall protocol results

	Individual pre-reading reading treatment (Text 1+Text 3)	Group work pre-reading treatment (Text 2+ Text 4)	ANOVA Difference in means
Cumulative scores	25.82%	25.86%	not significant
Level 3 idea units	32.47%	31.04%	not significant
Level 2 idea units	18.24%	13.34%	** [.004] SE=4.9
Level 1 idea units	12.63%	10.19%	* [.027] SE=2.44

Significance in brackets

The cumulative recall protocols results obtained from students after preparing the text in a group arrangement proved to be highly similar to the results achieved after the individual pre-reading activities. The ANOVA results did not reveal any significant difference between the two treatments. Comparable results were revealed when using Lunds's scoring method. On the one hand, regarding level 3 idea units, both treatments had the same effect on the participants' reading comprehension. Accordingly, the means did not unveil any statistically significant difference. On the other hand, the percentage of level 2 idea units recalled when students participated in group activities proved to be significantly lower than the percentage of level 2 idea units recalled when they completed the individual activities. The results in Table 4 show 13.34% of level 2 ideas recalled for the group work treatment versus 18.24% for the individual approach. The difference of the two means shows a statistically significant difference. Additionally, the average score for level 1 idea units for the group treatment was 10.19% versus 12.63% for the individual treatment. The ANOVA results showed that the difference in means for level 1 idea units was also statistically significant, favoring the individual treatment.

7.2 Multiple-choice scores

Regarding the differential effects between treatments in the multiple-choice scores, it was revealed that, when students prepared Texts 1 and 3 using the individual approach, the average multiple-choice score was 77.37%, contrasted with the 69.55% obtained when students prepared Texts 2 and 4 following the group work procedure.

Table 4. Multiple-choice results

	Individual pre-reading reading treatment (Text 1+ Text 3)	Group work pre-reading treatment (Text 2+ Text 4)	ANOVA Difference in means
Mean score of MC tests	77.37% (n=61, SD=2.15)	69.55% (n=61, SD=2.47)	*[.001] SE=7.82

Significance in brackets *p $<$ .05 **p $<$ .01 ***p $<$ .001

As Table 4 confirms, the difference between the two mean scores shows a statistically significant difference, favoring the individual treatment.

8 Discussion

The primary purpose of this study was to determine what type of pre-reading activities would be most effective in increasing the reading comprehension of socio-political and historical texts amongst fourth semester college students of Spanish. A pattern favoring individual pre-reading techniques over group work emerged from both recall protocol results and multiple-choice tests results. When focusing on supporting ideas and minor details (level 2 and level 1 idea units respectively) in the recall protocol, results reveal that the individual treatment proved to have a more statistically significant impact on the students' comprehension than group work. The percentage of recalled main ideas (level 3 idea units) was slightly higher when the individual pre-reading treatment was implemented. However, the difference between the means of each treatment was not statistically significant. Similarly, no statistically significant difference was revealed on the cumulative results on the recall protocols. The cumulative scores favored both treatments equally. As Table 4 states, the percentage of cumulative recalled ideas was 25% for both pre-reading treatments.

Multiple-choice results reveal a statistically significant difference between student averages, clearly favoring the individual approach versus group work. Questions included in the multiple-choice tests targeted mainly main ideas (level 3 idea units). Two reasons might account for this fact. First, recall protocols require more effort to be completed, and are thus scored against a significantly more complex standard than multiple-choice tests (Osa-Melero, 2012). As Berkemeyer (1989) states, "immediate recall protocol requires that the reader comprehend the text well enough to be able to recall it in a coherent and logical manner" (p. 131). Readers cannot recall idea units that they have not previously understood. A second explanation for the higher scores on the multiple-choice tests is that these tests present the opportunity for students to guess. Participants could have simply guessed the correct answer. However, unlike Wolf's (1993) study, the multiple-choice questions attempted to limit this phenomenon by omitting words or phrases directly from the text, using only synonyms and other different expressions with similar meaning. Therefore, the student guessing explanation could not be fully applied. Piloting the multiple-choice tests assisted the researchers in creating a more objective measurement tool.

Contrary to what most educators would have expected, the group approach did not have a greater impact than the individual approach on the comprehension of level 3 idea units.

Results from the recall protocols confirm the student tendency to concentrate better on texts' level 2 and level 1 idea units, when their surroundings are free of distractions and social interaction. Results from both assessment tools in this study add to the body of evidence that group pre-reading activities do not help students to achieve greater reading comprehension performance than individual activities. The findings in this study find support in Yan and Kember's study (2004), in which they confirm that the degree of student involvement in group activities expands into a broad spectrum from high to low. Yan and Kember (2004) analyzed student involvement in different types of group activities, noticing that "some activities that students conducted in groups, were of low-involvement level [...] and there were limited or no intellectual exchanges among those in the group" (p. 423). Fushino (2010) also points out, "the teacher cannot force students to participate in groups in the way the teacher wants or expects. Instead, students are free to choose whether or not to work actively" (p. 701). According to Fushino (2010), a key component of the success for group activities in a FL classroom is the willingness of students to communicate in the L2. There are several factors that might have affected the group dynamics that need to be considered. Besides the willingness to communicate, we need to consider participant's confidence in his/her ability to interact in the L2. Although it cannot be confirmed that confidence was the main factor affecting participants' communication exchanges in this study, it can be hypothesized that a lack of confidence in the L2 might have affected participants' exchanges in the group.

Another explanation for the results is the greater possibility for inadequate guidance and structure that exist when students engage in group activities. Organization and structuring of group work is of great importance when it comes to creating ideal learning conditions (Postholm, 2008). Having students work in groups without explicit guidance and without providing the basic group skills needed by group members would not likely improve the learning process nor student achievement. As Fushino (2010) assures, the work of the students in a group learning environment is rather unpredictable unless there is structured guidance in place. For this reason, Chiriac and Granström (2012) advise, "we should not take group work skills among the students for granted [...] educational leadership and classroom management need to be practiced in a carefully planned way when introducing group work." (p. 346). In the group approach, we tend to assume that students have already learned the social skills to interact and coordinate the group activity. As Chiriac and Granström (2012) highlight, the fact that students naturally master social skills and manage the dynamics to effectively work in a group seems to be a myth. Johnson and Johnson (1999) reiterate that "placing socially unskilled students in a group and telling them to cooperate does no guarantee that they are able to do so effectively" (p. 82).

As the results indicate, if the FL instructor wants to implement group pre-reading activities and s/he is not fully familiar with the cooperative group guidelines, the individual approach should be more beneficial to students' reading comprehension. By thoughtfully considering the format and implementation process of pre-reading activities, educators will effectively assist students to increase reading comprehension.

9   Limitations and future research

Although the results of this study highlight the positive effects of the individual approach versus group work, this study does have limitations. The study was performed in an authentic instructional setting. The 61 students were divided into three separate classes, each with a different instructor. Each instructor closely adhered to procedural guidelines that were explained during the training session. Nonetheless, unavoidable differences in treatment implementation might have impacted the results. Conducting a pure experimental study in the future could offer more accurate results by allowing for a more controlled research procedure and provide the option of a larger pool of participants. A more controlled setting could also avoid the use of the reading time commitment forms signed by all participants attesting to a maximum of 35 minutes of home reading time. In this study, this use of the honor system was necessary, since the study was implemented in

three authentic ongoing language classes, and there were fixed procedures that had to be respected and could not be modified. Although students were repeatedly advised about the importance of their honesty in terms of the commitment form, this aspect of the study may have affected the results, something a more purely experimental study could avoid.

Additionally, a future study comparing the impact of cooperative pre-reading activities versus group work pre-reading activities is necessary to corroborate the effectiveness of the guidance and structure components included in the cooperative assignment. Finally, qualitative research components, such as interviews with participants and the recording of participants' interactions, will offer crucial information about student motivation toward text content and perceptions towards the teaching approaches.

10 Conclusion

In conclusion, the results suggest that the individual approach significantly assist participants in the processes of correctly answering multiple-choice questions and recalling a higher percentage of supporting ideas and minor details than the group work. It could be hypothesized that, when students are placed in groups, their reading comprehension is negatively affected by the lack of structure and guidance that the group approach entails. Although, as Fushino (2010) states, the group approach has been increasingly used in the FL classroom, the benefits of such an approach within the context of pre-reading activities is still questionable.

Note
[1] Reciprocal teaching is an instructional technique designed to enhance student comprehension of a text. It is a form of dialogue between teacher and students structured around four skills – question generation, summarization, clarification, and prediction. These techniques are used in small group discussions to help students become more effective readers.

Acknowledgement

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