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"The effect of Total Physical Response on improving vocabulary acquisition when applied in teenagers' Remedial Classes at "Luisa Cordero High School"

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Author: Ing. María Gabriela Tobar Espinoza

Director: Anne Carr, Ph.D.

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RESUMEN

Diferentes estudios afirman que el vocabulario es un componente esencial al aprender una segunda lengua ya que este influencia directamente el desarrollo de las cuatro destrezas: escuchar, leer, escribir y hablar.

El objetivo de este trabajo de investigación es observar el impacto del método, Respuesta Física Total (TPR) en la adquisición de vocabulario durante las clases remediales y la influencia del mismo en el desarrollo de las cuatro destrezas.

El tratamiento consistió en enseñar a los participantes vocabulario mediante el uso del TPR. El mismo que fue utilizado como una actividad introductoria y al finalizar la clase, para después llevar a cabo la clase regular de acuerdo al sílabo.

Exámenes previos y posteriores fueron administrados con el objetivo de medir el impacto del tratamiento y la información recolectada fue analizada utilizando análisis estadísticos multivariados y tests T; se realizaron entrevistas para recolectar las percepciones de los estudiantes sobre el tratamiento.

Los resultados muestran que este tratamiento es efectivo para la adquisición de vocabulario en clases remediales y también tienen un impacto positivo en el desarrollo de las cuatro destrezas.

Palabras clave: Respuesta Física Total, adquisición de vocabulario y clases remediales.

ABSTRACT

According to different studies, vocabulary is considered a key element when learning a second language because it directly influences the development of the four skills: listening, reading, writing and speaking.

This research aimed to find out the impact of Total Physical Response (TPR) in vocabulary acquisition during remedial classes, and its influence in the development of the four skills.

The treatment consisted of teaching participants vocabulary trough TPR, which was performed as a warming up and closing activities, then the regular class based on the course's syllabi was taught.

Pre and post-tests were administered in order to measure the impact of the treatment and the data collected was analyzed using multivariate statistical analyses and t-tests; interviews were held in order to collect information about participants' perceptions of the treatment.

The results show that the treatment is effective for vocabulary acquisition in remedial classes as well as having a positive impact in the development of the four skills.

Keywords: Total Physical Response, vocabulary acquisition and remedial classes.

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María Gabriela Tobar Espinoza

C.I: 0102729514

To my family: my great support.

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INTRODUCTION

One of the most important elements of learning a second language is vocabulary acquisition. Adequate vocabulary acquisition is closely related to the development of all four skills: reading, listening, writing and speaking. Without a sufficiently large lexicon in the second language, students' understanding of the text they are reading can be severely impaired – even the context of the reading may not be grasped (e.g. Vadasy and Nelson, 147; Diskin and Bat-Zeev, 444, 445). The listening skill, in the same way, is debilitated by a lack of vocabulary; lexical knowledge allows students to not only understand the words they have heard before but also infer the meaning of new ones through the context they are found in (Segalowitz, Laufer and Hulstijn, qtd. in Rost 168). Obviously language production – conveying ideas either orally or written, is extremely difficult when students have a lack of vocabulary (Wilkins, qtd. in Milton 3). Within this framework, it is important to note that the participants of the present study belong to the educative institution "Luisa Cordero High School", and their main problem has been identified as being unable to develop the four skills because of their lack of vocabulary knowledge.

While it is important to state the main aim of broadening students' lexicon in order to facilitate their acquisition of the four skills, the methodology should be chosen with care. The method is a key element to effectively reach the main goal of learning a second language. The method should achieve two main characteristics; create a stress-free atmosphere conducive to learning and motivate students to get involved in the learning process (Dörnyei 41).The appropriate method is any that makes learning an enjoyable process and humor could and should play a part in it as "humor is many things and one of them is interesting" (Wlodkowski, qtd. in Dörnyei 77).

One of the many problems in mainstream education is that teachers are often faced with large classes with students of differing levels of competence. Time, grading requirements and other demands often make it impossible for even the most dedicated teaching professional to deal with all learners' needs. When the gap between levels is too wide, remedial classes can be a viable solution to try to bring lower students up to their classmates' level (GomezPosteguillo, Fortanet and Palmer and Fortanet 112). However, this solution could engender resentment and shame in

the students for being placed in a remedial class, so to minimize this, the classes should be developed in such a way that they appear least like a punishment.

Total Physical Response, or TPR, could be a viable solution as it is a holistic method in which emotional and affective aspects of learning are given importance. This methodology takes away a lot of stress by using game like activities which create a positive attitude in students, increasing their interest and helping them acquire the vocabulary essential for developing the four skills (Bancroft 1). The amicable environment provided by TPR, along with its supportive aspects, makes it suitable for a remedial classroom, where students need a different teaching approach.

PROBLEM STATEMENT

One of the main problems identified within the English program at Luisa Cordero High School is a lack of vocabulary, which makes the development of the reading, writing, listening, and speaking skills difficult. This is a general problem found at all levels at Luisa Cordero High School but it has been highlighted in the 11th grade, where a substantial group of students do not reach their classmates A2 level and for that reason face many problems learning English as the material that they are seeing in class is beyond their ability to comprehend and learn.

The institution, in an effort to bring up the level of these students has created a remedial group. These students demonstrated weaknesses in all aspects of the language, and themselves expressed their discontent at trying to learn vocabulary via the “standard” repetition method, saying that it is not helping them to acquired vocabulary and because of this lack they cannot express their written and oral ideas efficiently. A possible solution identified to alleviate this problem is to apply Total Physical Response, because this method can help students acquire vocabulary to develop the four skills (Richards and Rodgers 73-76), since it emphasizes the “use of movement as a memory enhancer” (Widodo 247) and lowers anxiety, which facilitates learning (Rodas 27). For example, students can learn through observing actions and reinforcing them by performing the actions themselves. Moreover, students’ stress is reduced because the use of zany commands and skits makes learning more fun and enjoyable (Larsen-Freeman and Anderson 110). In response to this need, a TPR remedial class will be created to help students who do not reach

the required level of the 11th grade classroom and have been placed in the remedial group.

OBJECTIVES

To determine the effect of Total Physical Response on vocabulary acquisition and development of the four skills of remedial students by pre- and post-test comparison.

To asses students' attitudes and preferences towards learning vocabularycollect data, using questionnaires, from students in order to find out if they like to learn vocabulary and how do they like to learn vocabulary..

To determine the effect of Total Physical Response on vocabulary acquisition and development of the four skills of remedial students by pre- and post-test comparison.

To asses student's attitudes towards TPR as a methodology to use in the classroom.To collect information from the students through post-treatment interviews in order to determine their positive or negative attitudes towards this approach.

RESEARCH QUESTIONS

To what extent does TPR help remedial students acquire vocabulary?

To what extent does vocabulary acquisition through TPR improve the development of the four skills in a remedial classroom?

HYPOTHESIS

The selected method, Total Physical Response, will promote vocabulary acquisition which in turn will positively affect the development of the four skills: listening, reading, writing and speaking.

DELIMITATION OF THE RESEARCH

This thesis focused on a specific target group, remedial students from Luisa Cordero High School a private institution in Cuenca - Ecuador. The group were middle class eleventh-graders, from fifteen to sixteen years old, who had problems in learning English and could not reach their classmates level. The students had an A1

level (Annex 1) according to the Common European Framework (231-233). The course ran for three months, one hour a day from Monday to Friday, for a total of sixty hours.

TPR has been shown to be useful for introducing new vocabulary as well as developing the four basic skills. For that reason, this research aimed to measure the effectiveness of TPR for acquiring vocabulary and its consequent effect on the students' development of the four skills.

OPERATIONALIZATION OF THE RESEARCH

The dependent variables of the research are vocabulary acquisition and the improvement in developing the four skills. The influence was tested through a pre-test pre-test and post-test post-test to measure the effectiveness of the treatment. Vocabulary knowledge was measured according to the vocabulary sections from the previous year's textbook and the current textbook and compared to the KET vocabulary list provided in the Cambridge English Language Assessment web page. The four skills: listening, reading, writing and speaking were also tested with the different activities and questions being chosen from exercises used for the Key English Test (KET) preparation.

The same process and contents used in the pre-test pre-test were used in the post-test post-test to determine the improvement of the students' vocabulary knowledge and their listening, speaking, reading, and writing skills.

The independent variable, or treatment, consisted of the use of TPR as a warm up and closing activity.

1 CHAPTER I

THEORETICAL FRAMEWORK

Many teaching methods have been developed and applied in classes in order to help students and teachers achieve the main goal: to effectively learn or teach the target language. A fundamental aspect of any of these methods is vocabulary acquisition and knowledge as it has been shown to be a key element in effectively developing the four skills - reading, writing, listening and speaking. A lack of vocabulary does not allow students to successfully convey their written and spoken ideas. Moreover, they may also struggle when they have to listen or read in the target language. For these reasons, many studies have been implemented to investigate the importance of vocabulary when developing reading, listening, speaking and writing (Ediger and Bhaskara 185) Thus, it is most important to choose the appropriate teaching method to promote and facilitate learning in a particular learning environment (Vyas and Patel 188). Some of the better known teaching methods are described below:

1.1 VOCABULARY TEACHING METHODS

1.1.1 The Grammar -Translation Method.

The Grammar -Translation method, also known as the classical method, has as its main goal the learning of the target language by memorizing grammar rules to be able to translate sentences and texts from the target language into the native language and vice versa. The main focus of the method is reading and writing skills leaving listening and speaking behind (Richardodgers and Rodgers 5 - 6). Students are instructed in their target language and practice is carried out through translation of words, sentences and texts. Some strategies employed with this method include providing word lists, memorizing dictionaries and words (Richards and Rodgers 6).

RodgersRichards and Rodgers established that students easily lose their interest with the method because they feel frustrated and apathetic as it is really boring to learn huge vocabulary lists to be able to achieve a perfect translation.

1.1.2 The Direct Method.

This method appeared around 1920 because of the constant demand for oral proficiency. With this method, translation and grammar explanations are not required and students learn the language through the use of pictures or actions and most importantly everything is carried out in the target language (Fasold and ConnorLinton 455). The development of speaking competence is the main goal of this method, with special attention paid to pronunciation and so students are required to speak from the beginning (RodgersRichards and Rodgers 11) with language centered on everyday vocabulary and sentences through demonstrations, actions, pictures with abstract vocabulary being taught through association of ideas (RichardsRodgers and Rodgers 12).

According to the requirements of the method, teachers needed to be native speakers or at the least people who had a natively fluency in the language. This method was considered impractical because the aims of public schools was not teaching only conversational skills, which could be learned in a private institution (Richards and Rodgers 13). The aim of public schools was to develop reading knowledge where vocabulary was considered one of the most important aspects when learning a second language (Boyd 10).

1.1.3 The audio-lingual Method.

According to this method, language learning is a process of habit formation and it emphasized the acquisition of grammar (structures) as this was considered the main obstacle when learning a second language. Grammar was taught through examples and drills; analysis and memorization was no longer important (Huckin and Coady and Huckin 11). This method concentrated on developing listening and speaking skills before reading and writing. Larson-Freeman says that vocabulary items were selected according to their simplicity and familiarity with new lexical items being introduced through drills, but only enough words to make the drills possible (qtd. in Coady and Huckin Huckin and Coady 12). The memorization of these drills built a false sense of security in the learners, who believed that learning as many words as possible constituted learning a new language, Rivers suggested that learners oversimplified the role of isolated words and for that reason they were not

able to reproduce them in authentic communication when they had to face different combinations of words (qtd. in Coady and Huckin Huckin and Coady 11).

1.1.4 Communicative Approach

Because students were not able to communicate, the communicative approach was developed with the aim of giving real life communicative value to everything that students do and learn in the class. Morrow established that a communicative activity must be in “some way useful for students, that it operates above sentence level: that there be real life aspects to the communication, that the activity involve actions and that mistakes be tolerated as long as they do not interfere with the communication” (qtd. in Flowerdew and Miller 12). The influence of the communicative approach on vocabulary teaching was dramatic; the focus changed from learning isolated words to learning words in context (Smichitt 20). The communicative approach was the forerunner of the natural language approach.

1.1.5 The Natural Approach.

The natural approach is a communicative methodology where “Language learning is a reproduction of the way humans naturally acquire their native language” (Mostafiz 25). Krashen and Terrell have suggested that the main difference between the Natural approach and other methods is that its main objectives are the use of language and it emphasizes the importance of vocabulary (qtd. in Mostafiz 26). This method, possibly more than any previous methods, highlights the importance of the affective filter – students need to feel relaxed and “natural” in order to acquire a language as they did when learning their first language. As with a first language, one cannot acquire a target language without the requisite understanding of vocabulary (Mostafiz 26- 27).

1.2 IMPORTANCE OF VOCABULARY IN SECOND LANGUAGE LEARNING.

The four skills, reading, listening, speaking and writing are essential for competence in any target language and various authors have emphasized vocabulary as a key element for developing these skills. For example, Macaro states that “vocabulary language is a key feature because the more in a spoken or written text that you can recognize the more that you can use strategies to help you understand the bits that you cannot recognize” (63). This idea of understanding

vocabulary through context, or the lack of, has been noted in many studies with authors highlighting the link between insufficient vocabulary knowledge and reading comprehension ability (e.g. Vadasy and Nelson 147 ; Diskin and Bat-Zeev 444, 445). This negative correlation is also found when students have to address academic texts; Sheory and Mokhartari, in a study carried out with a group of Korean undergraduate students, showed that their “small or limited vocabulary” was their main weakness when reading English for academic purposes” (qtd. in Jong 11). A similar study carried out with a group of Israeli students by Jong himself found that they had difficulties when reading because of their limited knowledge of academic words (11). Thus the capacity to comprehend written text seems to be strong linked to vocabulary knowledge at any level; thus, it would appear to be important to help students develop their lexical knowledge in order to help them develop reading proficiency for normal or academic texts.

The same pattern is observed with listening ability, with students with less lexical knowledge faring worse than those with more vocabulary. According to Segalowitz, Laufer and Hulstijn the relationship between effective listening and accessibility of vocabulary is strongly linked with listening being facilitated by the size of an individual’s mental lexicon and the listeners’ facility in spoken word recognition. They add that speed and breadth in word recognition is a consistent predictor of L2 listening ability and Luce and Pisoni add that there is evidence that this speed of spoken word recognition is linked to the listeners’ depth of knowledge of words. (qtd. in Rost 168).

The previous two skills rely on word recognition, while writing and speaking are productive and rely on students not only recalling the words, but also using them in the correct context. Vadasy and Nelson affirm that limited vocabulary knowledge creates an obstacle to developing students’ written and oral skills (147) with learners’ vocabulary knowledge directly influencing their written and spoken performance with more words leading to achieving a reasonable level of comprehension (154).

Spoken performance, especially in front of peers, can be both uncomfortable and embarrassing for learners, which is exacerbated by learners’ awareness of their inability to express themselves due to their lack of vocabulary knowledge (Rose 124). Wilkins, a famous writer and teacher, said “without grammar very little can be

conveyed, without vocabulary nothing can be conveyed" (qtd. in Milton 3). Wilkins's students also expressed that speaking is one of the most difficult skills to develop due to not being able to communicate their point of view because of their lack of words (qtd. in Milton 3) (3) Therefore, when students are learning a second language, it is important to note that vocabulary development has a significant role in not only helping them orally communicate their ideas but also in reducing stress levels.

This vocabulary development is also highly necessary for writing in the target language; Carson carried out a survey on 128 nonnative-speaking undergraduate students with vocabulary deficiencies and determined "that their lack of English vocabulary is the main factor affecting the quality of their writing" (qtd. in Jong 13). In research involving 6 Chinese students who had completed secondary education (19-20 years old), the students themselves recognized the importance of vocabulary knowledge and felt frustrated at repeating the same words over and over and not being able to make their ideas understood because of their lack of vocabulary knowledge (Albrechtsen, Haastrup,and Henriksen 20). Cohen and Cowaen also affirm that vocabulary development will enhance a child's writing ability, and use of quality words will contribute to developing the child's ability to express thoughts and ideas (278).

It has been shown previously that vocabulary knowledge is important in learning and using the four skills, although ChaconChacón, Abello and Torreblancadel Mar go further and sustain that vocabulary knowledge is not only necessary for these skills but it is also highly important for fluency; they researched a group of non-native learners who took an IELTS and determined that "vocabulary size is the most important factor in determining success in the writing, reading, listening and overall IELTS grades" (95-96). Additionally, "Substantial volumes of vocabulary knowledge are necessary to go beyond an elementary level of language performance" (Milton 180).

We are left in little doubt as to the importance of vocabulary knowledge in the learning and use of the four skills in language learning, but what is the best way to actually motivate students to learn vocabulary?

1.3 MOTIVATION, A KEY ELEMENT WHEN LEARNING A SECOND LANGUAGE.

"Language learning is one of the most face-threatening school subjects because of the pressure of having to operate using a rather limited language code" (Dörnyei 40). For that reason, it is important to create a good teaching atmosphere to reduce the stress levels of learners, to make them feel comfortable and effectively support their learning process.

According to Macintyre and Young "Language anxiety has been found to be a powerful factor hindering L2 learning achievement" (qtd. in Dörnyei 40). Learning a new language provokes certain fear in students because they are aware that they can be criticized if they make a mistake, even when they answer simple questions or try to formulate simple sentences in English. They not only have to go through the process of learning a new language, they know part of this process is "to pay attention to pronunciation, intonation, grammar and content at the same time" (Dörnyei 40). If they are not able to convey their ideas they could feel frustrated and not enjoy the process. For that reason, according to Dörnyei, the teaching and learning processes should be carried out in an" ideal classroom climate" (41), where the following aspects must be encouraged.

- No tension in the air.
- Students are at ease.
- There are no sharp, let alone hostile comments made to ridicule each other.
- There are no put-downs or sarcasms.
- No need for anyone to feel anxious or insecure.

If the class is taken in an agreeable environment, where pressure, mocking comments and anxiety is reduced, students can feel more relaxed and the difficulties found in the course of action would be taken as normal steps in the second language learning process. Furthermore, Dörnyei has established that "in a safe and supportive classroom the norm tolerance prevails and students feel comfortable taking risks because they know that they will not be embarrassed or criticized if they make a mistake" (41). If students experience a pleasant class atmosphere, where errors are part of the language acquisition, they will give themselves the chance to

try and learn as they know they will not be judged. Teachers and students must be supportive of each other because all of them are part of the learning process and play an important role in it. Creating a pleasing atmosphere is a challenging and continuous job because it needs to be supported and improved every day.

According to Dörnyei, a helpful "tool to improve the classroom atmosphere is the use of humor" (41). It is an important element that sometimes is ignored because teachers are used to rigorous and serious class environments. Students need to enjoy their class and in some way find it fun as it creates a positive attitude about the learning process. Humor is not only about joking in the class; it can develop a sense of awareness and curiosity in learning a second language. Wlodkowski supports that "humor is many things and one of them is interesting" (qtd. in Dörnyei 77). If students find that their class is develop in a satisfying environment, they would feel interested about it and benefit from the learning process.

When students develop a sense that learning a second language is a fun and agreeable processes, they have a higher chance of succeeding and overcoming their fears (Dörnyei 77). Also, this researcher mentions that "people usually enjoy a task if they play an essential part on it". To make learning stimulating and enjoyable, learning situations where learners are required to become active participants should be created (77). For that reason, learners must be active individuals in their learning process and feel that their needs are met by the teacher, the method and the atmosphere during the whole course of action.

Dörnyei has suggested several strategies to make learning more motivating and pleasing, one of them is "breaking the monotony of classroom events" (73). For example, the learning style is an important aspect, if students are taught by a strict method where fun is not part of it; their threatening feelings increase. Thus, choosing the teaching method is really important and it should meet students' needs. In addition, teachers should "increase the attractiveness of the tasks" (76) and it might be achieved by making them more interesting for the learners. If we can call our students attention, we would have a better opportunity of enhancing their interest in learning the language.

It is said that "people are usually quite willing to spend a great deal of time thinking and learning while pursuing activities they enjoy" (Dörnyei 79), but what

happens when teachers have many students with different English level and needs? Are remedial classes a useful tool?

1.4 MOTIVATION IN REMEDIAL CLASSES.

"Any learner has different abilities depending on variables such as age, context, environment, background, etc". For that reason, it is difficult for teachers to cope all their students' needs (Gomez and FortanetPosteguillo, Fortanet and Palmer 112). When there are many students in a classroom, it is really important to pay attention to their age, the atmosphere where they develop, to try to help them overcome their difficulties. Teachers are always trying to deal with students needs, but when they have a big class it is difficult to achieve it because there are many other factors that need to be accomplished, such as a syllabus, grades, etc, making it difficult for a teacher to deal with all the students needs.

According to Posteguillo, Fortanet and Palmer o Gomeand Fortanetthere are only two possibilities when a teacher faces a class with students with different levels and needs: to increase the gap and pay attention to the students with the appropriate level needed for the class or to try to help the students that are having problems in English and have not been able to reach their classmates level. It is a difficult situation but Gomez and FortanetPosteguillo, Fortanet and Palmer suggested that remedial classes are a helpful tool to reduce the gap between learners who are not at the level of their classmates. It is not only a stressful situation for teachers, but it is also for students as they can get frustrated and bored when they are not at a similar level as their classmates. For that reason, the most appropriated solution is remedial classes if possible (112).

Teachers must be aware that remedial classes are the most suitable solution but different factors that can affect learners' performance must be taken into account. According to Bruton, there are three factors that can cause different levels: "amount and types of previous exposure/interaction, motivation and learning capacities and a combination of these" (qtd. in Posteguillo, Fortanet and Palmer Gomez and Fortanet 112). In fact, it is essential to know how much contact with the language students have had and how they like to learn English, but according to Harmer, "motivation is the main factor affecting performance" (qtd. in Gomez and FortanetPosteguillo, Fortanet and Palmer 113). Thus, remedial classes are important

when helping students with problems in English and are not at their classmates' level, but motivation must be a key element when carrying out the classes.

Motivation in remedial classes is a major aspect , Garner has established, "motivation to learn a second language as the extent to which the individual works or strives to learn the language because of a desire to do so and the satisfaction experienced in this experience" (qtd. in Gomez and FortanetPosteguillo, Fortanet and Palmer 113). Furthermore, a motivational remedial class needs to be pleasant for students to make them wish to be part of it and to not see it as an unlikable activity that they need to accomplish because it is the school's requirement.

When trying to develop a pleasant class for students and especially for remedial learners different stratagems must be revised to help students cope their needs. According with a study carried out by Dörnyei Do¨rnyei and Csizér Csize´r in Hungary in 1998 about motivation, ten motivational strategies were established (161) which teachers should be aware of to encourage students learning a second language.

- Set personal example with own behavior.
- Create a pleasant, relaxed atmosphere in the classroom
- Present the task properly.
- Develop a good relationship with the learners.
- Increase the learners' linguistic self confidence.
- Make the language classes interesting.
- Promote learners autonomy
- Personalize the learning process.
- Increase the learner's goal-orientedness.
- Familiarize learners with the target language culture.

Cheng and Cheng and Dörnyei carried out a study with Taiwanese English teachers with the aim of finding some resemblance with the previous study of Dörnyei and CsizérDo¨rnyei and Csize´r, it provided the following evidence and similarities. 'Displaying motivating teacher behavior', 'promoting learners' self-confidence', 'creating a pleasant classroom climate' and 'presenting tasks properly' are universally endorsed strategies . Thus, it has been suggested that remedial

classes would help students with problems when learning English, but it is not enough as the class must be carried out by a well motivated teacher who can help students grow and encourage them to believe in themselves. Furthermore, as established before, an enjoyable atmosphere is necessary to give learners confidence and change their perception about themselves and the class. To create an agreeable class atmosphere, not only do the teacher and the students need to be motivated, but the method must also be supportive to help both reach their main goal, effectively learn the language.

According to Gomez and FortanetPosteguillo, Fortanet and Palmer, the teaching method is really important as it should satisfy our students needs and, interests and in this way avoid boredomthey would not be bored. (115). It is a difficult task for teachers to find the best method because there are a multitude of possibilitiesanddifferent procedures that aim to help students when learning a second language.(Gomez and FortanetPosteguillo, Fortanet and Palmer 112).

How can we combine motivating students, especially remedial students, who have possibly suffered ridicule in the past from more able peers, with an adequate teaching methodology? One of the most common methods still applied in foreign language teaching is the audio-lingual method whereby learners are drilled in grammar exercises and repetitive tasks based on the premises of Skinner's behaviorist theories which claim that humans learn through patterns of positive or negative stimulus-response reinforcement (GarciaSánchez et al. 32). This is likely the method employed by any remedial student's previous teachers, as it is one of the simplest methods to employ; their being in a remedial class speaks for itself as to the effectiveness of this method for these students.

Thus, a method that combines the needs of remedial students with the required motivation needs to be used; tThe natural method, with its low stress, relaxed approach would seem to fit the bill. and aAn offshoot of this, TPR (Total Physical Response),; was developed by Dr. James J. Asher, Professor of Psychology at San Jose University California (Rodas 25) . It has been applied for almost thirty years, and according to Widodo, TPR aims to center attention on encouraging learners to listen and respond to the spoken target language commands of their teachers (Widodo 237). AIn fact, according to Asher, "TPR is a

language teaching method built around the coordination of speech and action; it attempts to teach language through physical (motor) activity" (qtd. in Richards and Rodgers 73). Sousa affirms the same idea that attaching an action to a concept better ensures that students will remember the words and that the words will become part of students' long term memory". (qtd. in Gregory and Kuzmich 103). As it has been shown by different studies and authors, vocabulary knowledge is a key factor when learning a second language. Therefore, teachers need to promote its learning in an engaging, fun and safe environment, especially when dealing with remedial classes. The research group in question consisted of 16- year- olds who have passed through the "normal" education system and have obviously not benefitted from the more traditional methods of teaching and could possibly benefit from a different approach to learning. A method such as TPR could provide the motivation necessary to promote learning. According to Bancroft, in studies conducted in the United States, students using TPR outperform students using other such other approaches as the audio-lingual method in all language areas; there is a positive transfer from listening comprehension to other skills such as speaking, reading and writing (5).

1.5 TOTAL PHYSICAL RESPONSE.

TPR (Total Physical Response) involves game-like movements that create a positive mood in the learners and facilitates learning (RodgersRichards and Rodgers 121). Additionally Mink affirms that TPR "can be especially helpful for teaching vocabulary to all students" (10). Thus, TPR may be useful for introducing new vocabulary as well as developing the four basic skills, especially with students where traditional teaching has not helped such as the ones who need remedial classes.

TPR uses physical response strategies to convey meaning and "students are expected to respond physically and not verbally" which reduces stress thus, developing the class in an enjoyable environment (GarciaGarcía and Baker 221). In pilot research carried out by Gonzalez some students expressed that they learn new words through physical actions, and that speaking is the hardest skill to develop because learners fear criticism from their classmates (75). TPR offers a stress free environment as speaking is delayed until learners feel ready to orally communicate; they are not pushed to speak right away decreasing anxiety levels. Furthermore, it is

difficult for learners to remember words but as TPR uses physical movement there is a higher probability of successful recall (RodgersRichards and Rodgers 227). Moreover TPR is considered a holistic method in which the affective and emotional factors are important as the main focus of the method is to reduce student's anxiety levels and it seeks students' growth and satisfaction (Bancroft 1). The latter may imply that TPR could be appropriate for using in remedial classes with students who are struggling in learning and as a result they are under great stress.

It is also important to consider that TPR is not only a great method to acquire vocabulary; it is also helpful to develop the four skills, for example Wang et al. have demonstrated that TPR is very useful when developing listening comprehension (35). According to Duquette "TPR increases the speed and accuracy with which students "internalize" and ultimately use the language which they are learning. Asher's method is "considered by many to be a highly useful and effective preparation for focusing on listening comprehension as a method which eventually opens the students to success in all four skills" (3-4).

As TPR aims to create a stress free learning atmosphere and promotes the developing of the four skills, it may be of great usefulness when teaching in remedial classes.

1.5.1 Advantages of TPR.

TPR was, called the "natural method" by Asher himself as, since he considered first and second language learning as parallel processes. He believedestablished that second language should be taught and learned in the same way as it wasis done with the first language because not only does:

It it liberate students from stressful situations and allow them to devote full energy to learning (Richards and Rodgers 74-75) but students' confidence is also. This characteristic makes TPR appropriate for be used in remedial classes.

Students confidence is strengthened as they wouonly begin to speak when they feel ready and confident enough with the language (Larsen-Freeman and Anderson 108) lowering their anxiety level. As Learners learners who need remedial classes generally lackface confidence and may suffer anxiety problems,; therefore

TPR may provide the solution by creating a friendly learning atmosphere. Some of the benefits of TPR include:

- According to Cain, “aAlmost all language can be presented through commands and physical actions, including complex grammar” (qtd. in Hall 90Hall 90).
- Grammar is taught inductively (Richards and Rodgers 76).
- It allows “greater retention because it pairs mental processing with actions” (Baker and GarciaGarcía and Baker 221).
- It provides a sense of achievement because from the beginning students feel they can do something in the target language (Asher 1).
- Learners can monitor and evaluate their progress (Richards and Rodgers 76).
- Students have the opportunity to speak when they feel ready giving them the opportunity to have fun and avoid stress (Walsh 231).
- Physical action is used to learn new words and reinforce comprehension (Larsen-Freeman and Anderson 108).
- It is considered brain compatible which means that short and long term retention is maximized (Walsh 231).

Asher suggests that TPR activates the right hemisphere of the brain as the target language is acquired through movement and not only listening is developed without difficulty, but reading skills, too.

“The left brain seems to trigger warnings that other skills have suddenly appeared in the textbook such as reading and writing. The analytic and critical left brain is not comfortable with things that are unfamiliar. But with TPR, we are operating on the right side of the brain where there is no evaluation. Students just slide quietly into other skills without comment. Unless the instructor makes an issue out of it, the right brain is not aware of ‘other skills’, so there is nothing for the student to worry about. ”(Asher 16)

(Asher 16). For that reason, not only listening is developed without difficulty, reading skills, too

TPR consists of three important stagesstages;: ccomprehension of d the oral language, ccomprehension through body movement, and the llistening period which creates a readiness to speak, the latter is never being forced. Learners unexpectedly start speaking when they feel they have enough input, it means when they have decoded enough information (Walsh 219).

TPR is a process divided into different parts;: the listening period or silent period gives students sufficient time to internalize not only words, but also grammar rules, then “brain switching” occurs, this means that body movements stimulate the information to flow from the left hemisphere to the right one and back again. This is an important feature because it contributes to long term retention, zero stress and students’ understanding of the target language from the first exposure (Walsh 230). Students do not only learn vocabulary through TPR;, the first skill they develop is listening is the first skill developed by them, and when students feel ready, they will communicate through body language and will alsothey will speak. Furthermore, experts suggest that “TPR is an experience rather than a concept. The experience enables students of all ages including adults to understand any language in a few exposures” (Asher 1). TPR seems to be a method that not only provides an appropriate learning atmosphere without stress, but also as well as encouragesing the development of the four skills, thus TPR may be suitable for remedial classes.

Different studies demonstrate the effectiveness of TPR. F, for example, Kunihira, Shirou and Asher developed an experiment with eighty eight English speakers; these college students had no prior experience with Japanese. The students were divided into four groups with the same characteristics: had no fluency in any language other than English, and were not language majors in college; an experimental group to which TPR was applied. The three left remaining groups were the comparison groups which heard the same tape. The experts demonstrated that the experimental group not only outperformed the comparison groups in understanding Japanese immediately after training, but also 24 hours later, and even after two weeks (Asher 2-7).

Asher, Kusudo and de la Torre, James et al developed an experiment for under graduate students with no Spanish knowledge; there were twenty seven American participants. One group was taught through TPR and the other group through the traditional method of repeating, memorizing, translating, analyzing grammar rules, completing exercises and putting the direct object in the correct place. The experimental high school group with 45 training hours outperformed the control group with 200 hours when answering to true or false question about a story they had never heard but which contained vocabulary they were taught (Asher 16-17).

Another experiment was developed by Octaviany at the University of Semarang State to help thirty four fourth-grade Indonesian learners to master English words. Octaviany considers that “teaching vocabulary plays an important role in language acquisition because the mastery of vocabulary will help students in mastering all the language skills; listening, speaking, reading, and writing” (11). By the results obtained in the pre-test pre-test (44.51%) and post-test post-test (90.1%) Octaviany demonstrated that “TPR is a good tool for building vocabulary” (57). The main factor affecting this improvement was the students’ interest in the teaching learning process through this method (1).

The studies mentioned in this document demonstrate that TPR is a valuable method to teach vocabulary and develop listening, speaking, writing and reading. Furthermore, Octaviany establishes that “studying a language cannot be separated from studying vocabulary. It is very essential to improve the four language skills that are very useful in conducting communication and studying another language.” (2-3).

TPR engages students with physical activities, which in turns provides a friendly learning environment. It, it has also been demonstrated to be a successful method when teaching not just vocabulary but also speaking, reading and writing. Ttherefore, TPR has positive characteristics that make it suitable for using it in remedial classes which usually have learners who probably need a different teaching approach.

2 CHAPTER II

RESEARCH METHODOLOGY

The research methodology was mixed designed with a pre-test pre-test and post-test post-test applied to one non-randomly assigned convenience group. There was no control group.

Quantitative and qualitative methods were used. Both the quantitative questionnaires and the qualitative interviews were piloted before use in the research.

2.1 PARTICIPANTS

This thesis focused on a specific target group, students from Luisa Cordero High School. The chosen group was middle class eleventh-graders, from fifteen to sixteen years old, who face problems in English and for that reason do not have their classmates' level. There were 15 female students who participated in the research. In the questionnaires, 47% of the students expressed not enjoying learning vocabulary because they considered it difficult. The 93% did not have much contact with the language because they did not use it with their family or their friends. Only one of the students, the 7% attended private English classes, four hours per week. The 33% like learning vocabulary watching images and the 40% acting out. Also, the 27% affirmed they learned vocabulary through songs and videos.

2.2 DATA COLLECTION INSTRUMENTS

Quantitative(Fig. 1) and qualitative (Fig. 2) information was collected through the following methods.

Quantitative Instruments:

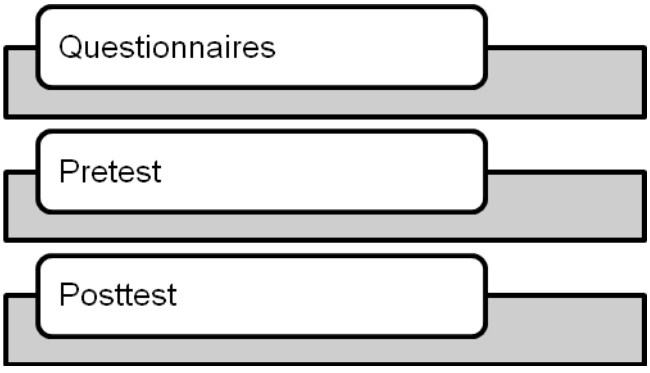


Fig. 1 Quantitative instruments

Qualitative Instruments:

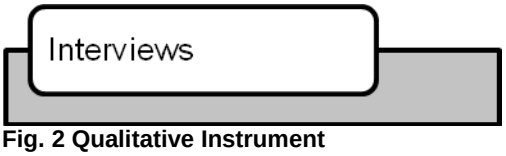


Fig. 2 Qualitative Instrument

2.2.1.12.2.1 Quantitative Instruments:

2.2.1.12.2.1.1 Questionnaires

First, data was collected through a questionnaire (Appendix 1) in Spanish to determine the characteristics of the sample (Fig. 3). Questionnaires were chosen because they are helpful tools to" collect a lot of information about the sample's attitude, beliefs and self-reported behaviours" (Mitchell and Jolley, 286). There were questions about how much exposure did they have with the language outside school. Also, it was helpful to determine if the students received extra help outside the institution, for example tutorials or classes at private institutes. Furthermore, learners were asked about their own perception about their English level. In addition, it was important to gather this information as it could have an effect on the results of the treatment. There were four closed- ended questions chosen because according to Jack Edwards "closed ended questions restrict the range of possible responses to those pertinent to the goal of the survey" (25). Also, participants are expected to read and interpret them in the same way. Another advantage is that "closed ended questions are easy to code and process" (Edwards, 25). There was one open ended question to obtain additional information about extra help that the sample might receive beside the school's tuition.

1. **¿Cuántos años tiene?**

13 ☐ 14 ☐ 15 ☐ 16 ☐

2. **¿Qué nivel de Inglés usted considera que tiene?**

Principiante ☐ Básico ☐ Intermedio ☐ Avanzado ☐

3. **¿Usa el idioma Inglés con su familia o amigos?**

Siempre ☐ A veces ☐ Rara vez ☐ Nunca ☐

4. **Recibe clases de inglés fuera de su institución Educativa?**

Si ☐ No ☐

5. **Si su respuesta es positiva. Podría establecer el número de horas que recibe a la semana.**

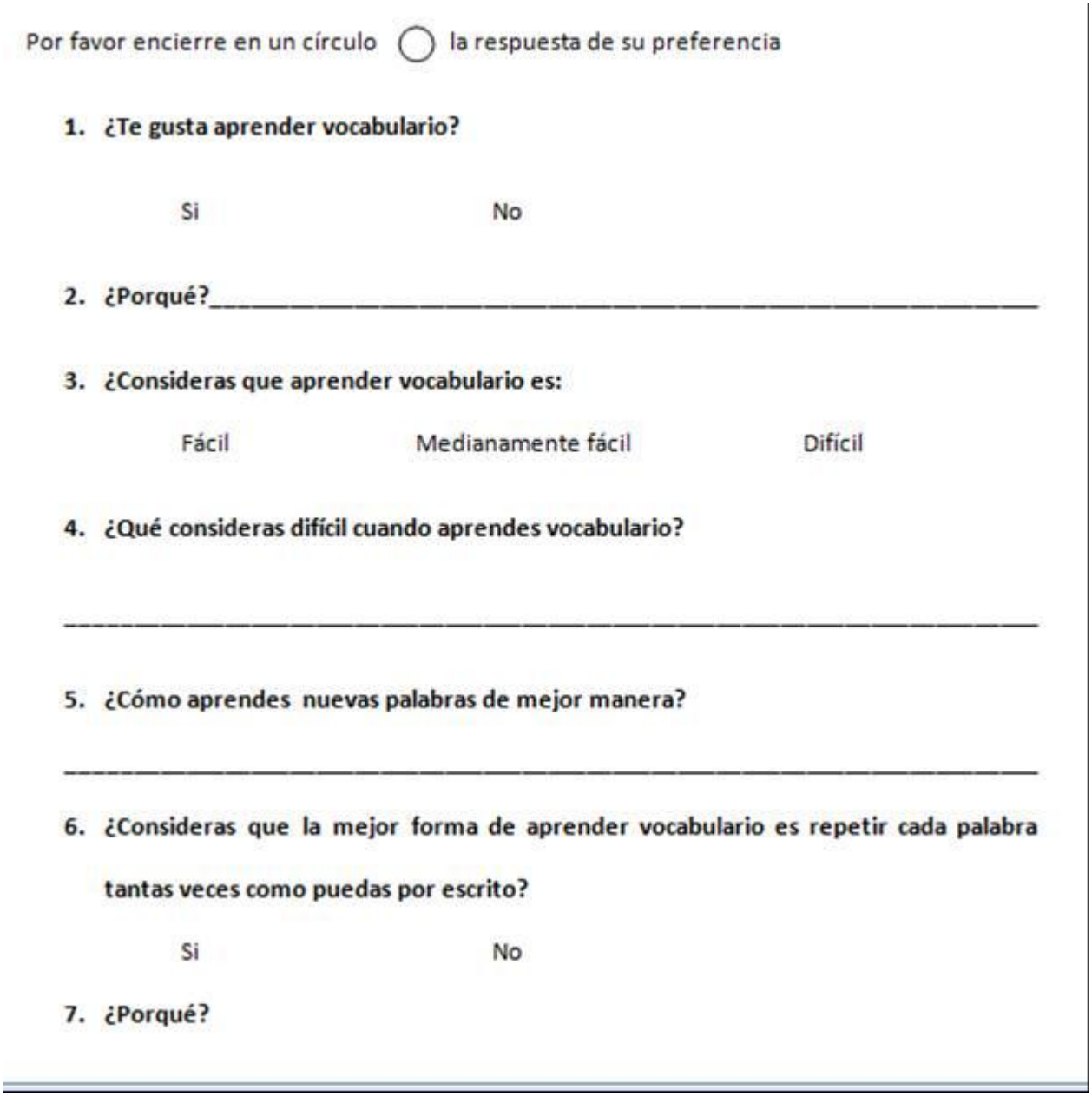
_____

Fig. 3 Closed and open ended questions used in the sample's characteristics questionnaire

Second, before carrying out the questionnaire about the students' preferences when learning vocabulary a pilot research was developed to evaluate the viability and effectiveness of the information gathering methods (Mackey and Gass 43). The questionnaire (appendix 2) was piloted to determine if the necessary information was provided, to asses if the questions were appropriately asked (Cargan, 116) to make the necessary adjustments before applying it to the target group. Also, it was designed in Spanish to ensure that all the students understood what they were asked.

In the pilot group there were ten students from Cebci high school. They were 14 to 15 years old and faced similar problems as theto the target group. This pilot questionnaire (Fig. 4) was intended to find out the preferences of the students when learning vocabulary. Also, to determine if, according to the students' perception, the current method, "repeating as many times as they can a word", they were using in class was helpful. There were four open ended questions and three closed ended

questions. There was an important open- ended question to determine what they considered was the best way to learn new words. It was helpful to determine the preferences of the students and to establish the different categories that were included in the actual questionnaire. Also, it was very useful as it allowed changing some questions and the way the students were asked to mark their answers.



Por favor encierre en un círculo ◯ la respuesta de su preferencia

1. **¿Te gusta aprender vocabulario?**

   Si No

2. **¿Porqué?**_____

3. **¿Consideras que aprender vocabulario es:**

   Fácil Medianamente fácil Difícil

4. **¿Qué consideras difícil cuando aprendes vocabulario?**

   _____

5. **¿Cómo aprendes nuevas palabras de mejor manera?**

   _____

6. **¿Consideras que la mejor forma de aprender vocabulario es repetir cada palabra tantas veces como puedas por escrito?**

   Si No

7. **¿Porqué?**

Fig. 4 Questionnaire #1: The best way to learn vocabulary.

The questionnaire was developed to answer the following questions which would be really helpful for the research before applying the chosen method:

- If the students like to learn vocabulary and why?

- How do the students like to learn new words?
- If the students like the school's current method.
- If the questions were clear enough for the students.

Due to the results of the pilot questionnaire, it was re-designed (Fig. 5) (Appendix 3) .

There were three open ended questions because one was eliminated as the previous questionnaire provided the necessary information to develop categories about how students learn new vocabulary. A closed ended question was created instead. The way the students were asked to select the options was changed, too.d; four categories were established according to the student's an

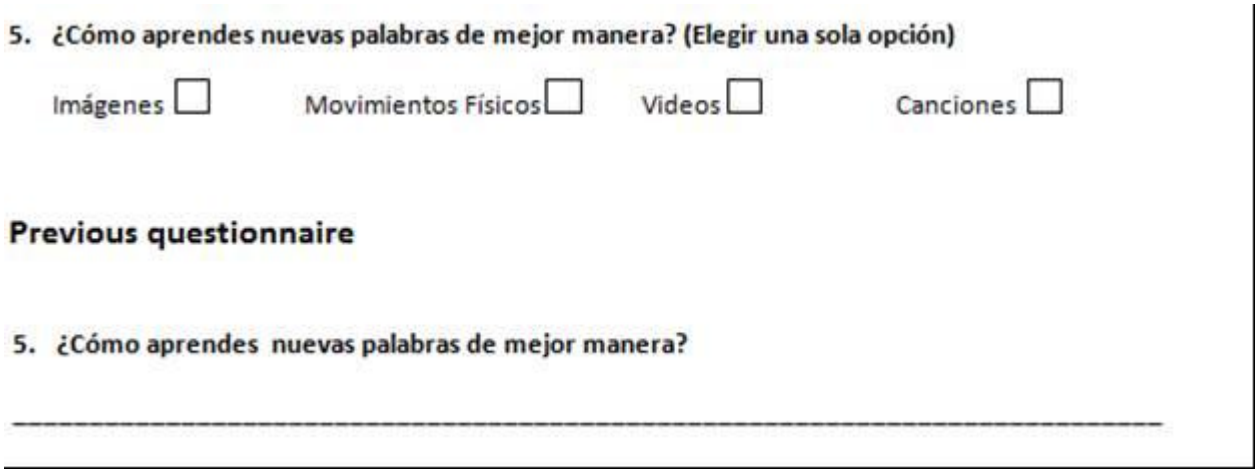
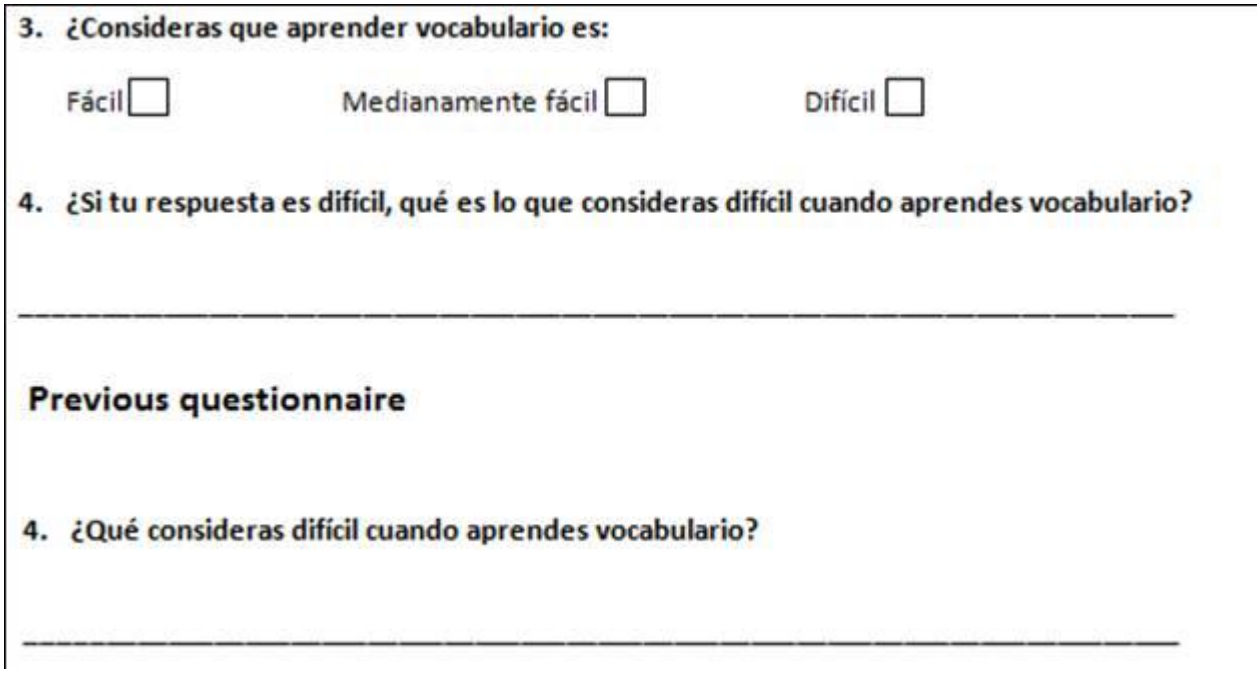


Fig. 5 Change #1 in the questionnaire: The best way to learn vocabulary/ Categories developed.

The way the students were asked to select the options was changed, too. In the re-designed questionnaires they were asked to mark with an x in the box to show their preference because in the first one some students did not follow the command.

Also, question number four (Fig. 6) was rephrased because it was important for the research to know the answer only of the students who considered difficult to learn new vocabulary.



3. ¿Consideras que aprender vocabulario es:

Fácil ☐ Medianamente fácil ☐ Difícil ☐

4. ¿Si tu respuesta es difícil, qué es lo que consideras difícil cuando aprendes vocabulario?

_____

Previous questionnaire

4. ¿Qué consideras difícil cuando aprendes vocabulario?

_____

2.2.1.1 Pretest and Post-test.

The pre-test is a really useful tool according to Keith Porte since important information about the sample can be gathered. Also, it enables the researcher to assure that the students did not know the information that was going to be tested. (119)

A pre-test (Appendix 4) and a post-test (Appendix 5) were designed as they are useful tools for measuring change and "the effects resulting from the selected intervention" (Dimitrov and Rumrill 159). Furthermore, both methods help the investigator to determine to what extent a chosen treatment helps students to learn (Mackey and Gass 149).

The tests were designed to evaluate the following: To what extent does TPR help remedial students acquire vocabulary and to what extent does vocabulary acquisition through TPR improve the development of the four skills in a remedial classroom?

Test Sections:

In the first part the students were tested about their vocabulary acquisition through the following assessment methods:

First, a chart was drawn in the student's test, where the commands were written and numbered from one to ten. They had to look at the written word and look and listen at the teacher performing the action. The facilitator said the corresponding number and the corresponding command. Then, she performed the physical movement. After each command, the students were asked to mark right if the performed command matched the written word if it did not match the action they had to mark wrong. Second, a chart (Appendix 6) was designed with ten commands, the students were individually tested. The teacher said the command and the learners had to perform it. Their correct or incorrect performance was registered on the chart According to Asher (1) both are recommended assessments methods in TPR.

The first and second vocabulary sections were words chosen after analyzing different sources: the vocabulary sections from the students´ last year notebook and book and the current book. Also, from the KET vocabulary list provided in the Cambridge English Language Assessment part of the Cambridge University web site which is a general vocabulary list according to the students' level. The chosen words (Appendix 7) cover vocabulary appropriate to A1 and A2 level on the Common European Framework of Reference (Fig. 3).

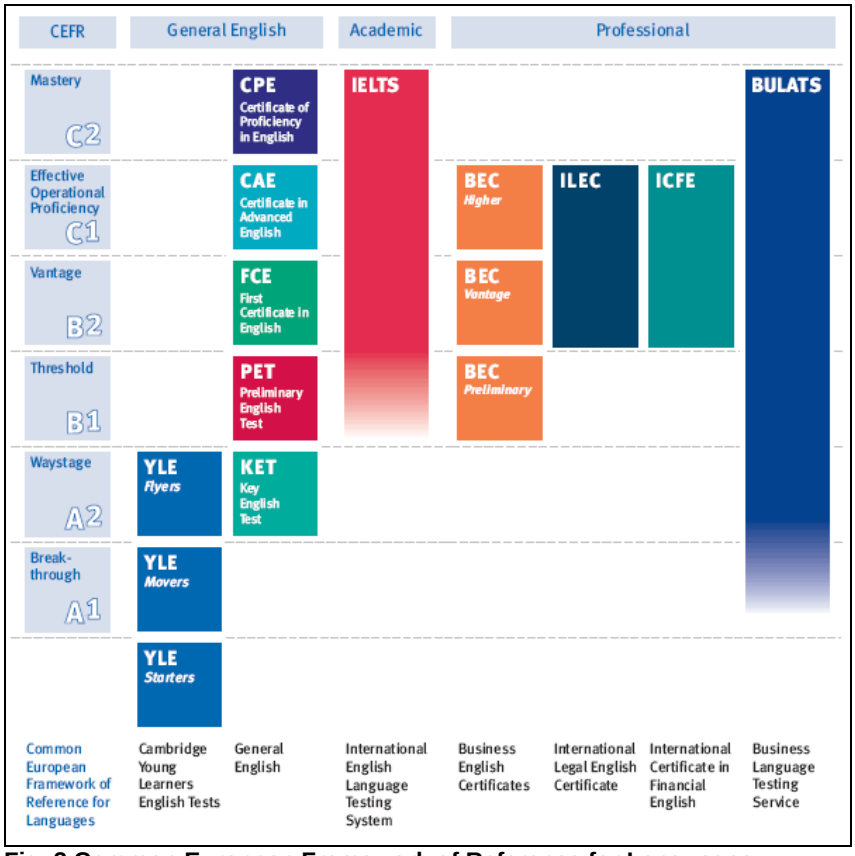


Fig. 3 Common European Framework of Reference for Languages

The four skills: listening, reading, writing and speaking were also tested, the different activities and questions were chosen from exercises used for the Key English Test (KET) for preparation, which is a basic level qualification that shows people can use English to communicate in simple situations and belongs to A2 level of the Common European Framework.

The second section tested was the listening skill. The students listened to a person taking to a friend about a sports afternoon and they had to write the corresponding letter according to the sport that each person did. They listened twice to the conversation.

In the third section students were tested about their reading skill. They had to read five sentences and match them with a sign with the same meaning. According to the Common European Framework A2 students "can understand everyday signs and notices: directions, instructions and hazard warnings." (70)

The writing skill was the fourth section of the pre-test. Learners were asked to write five sentences about their daily routine and they were graded according to a

pre-established rubric (Robertson 1) (Appendix 8), as recommended by Asmus who says that “rubrics are useful guidelines for rating students’ performance” because they show the aspects that the teachers should grade so they do not play a guessing game (qtd. in Mianto 1). Also, “Rubrics are able to align with standards and outcomes of what the students have learned” (Mianto 1-2).

A2 students according to the CEF are considered basic learners who “can communicate in simple and routine tasks requiring a simple and direct exchange of information on familiar and routine matters” (24).

The speaking skill was tested in the last section. Students were asked five simple questions as recommended by the Common European Framework. Students are able to “make him / herself understood in an interview and communicate ideas and information on familiar topics”. (82).They were also graded according to a pre-established rubric (Appendix 9).

The post-test contained the same sections as suggested by Stephan and Vogt, who established that when there is no control group it is recommended to ask students the same questions in the pre-test and post-test (233). Therefore, students were asked to carry out the same activities but in each section the options were arranged in different order.

It is important to point out that in the vocabulary section the previously chosen methods in the pre-test were considered the most appropriated because the students were used to these types of evaluations as they were asked in several classes to perform actions requested by the teacher or show if the action performed by the teacher was right or wrong. During class, students were sometimes asked to register their answer on a paper or show with a previous learned sign if what the teacher or their classmates performed matched the given command.

2.2.2 Qualitative Instruments:

2.2.2.1 Interviews

Students were interviewed (Appendix 10) about their opinion of the classes they had received and how they had helped them to improve their vocabulary and skills. A structured interview was conducted and it allowed the researcher to gather information about the students’ perception after the treatment. According to Patton,

the researcher must be aware what language interviewees use and make them feel comfortable (364) to obtain serious data gathering (40). Therefore, the interviews were done in Spanish to avoid misunderstandings during the process and allow students to freely express their feelings and opinions.

There were three open ended questions and four closed ended questions. All participants answered the same questions and they were asked in the same order.

2.3 TREATMENT

2.3.1 Treatment description

Asher established that TPR is a recommended method for students of all ages and it can be used at any level (Koster 23). Learners acquire the target language in the same way they acquire their native language (Raman 4) .Stress is reduced and learners enjoy their class because it is developed in a fun environment (Freeman and Anderson 109). The target group who were teenagers at A1 level did not like their regular way of learning vocabulary, “repetition”, because they considered it boring and found learning English difficult because they had problems memorizing and remembering words. In response to this need, a TPR remedial class that runs at the same time as the students’ school classes was created to enhance students’ learning.

It is recommended to use this method as a warm up activity because learners are required to perform physical actions and their visual, auditory and kinaesthetic senses are activated as they have to listen, watch and imitate (Koster 22-25). Gamelike activities are promoted with this method, making the class fun and enjoyable for students.

2.3.2 Procedure

Each class was divided into three sections with TPR used as a warm-up followed by regular class activities and each class finished with a recycling of the TPR from the beginning of the class.

Each week followed the same pattern with each day of the week following the same pattern:

Monday (Table 1): listening and vocabulary activities.

Tuesday (Table 2): grammar activities.

Wednesday (Table 3): reading activities.

Thursday (Table 4): writing activities.

Friday: recycling and speaking.

Below each section would be described:

Monday:

Monday **Activity**	**Time: 45 minutes**
1.1 New set of commands are introduced using TPR.	10 minutes
1.2 Regular Class: Listening and Vocabulary.	25 minutes
1.3 Recycling of the TPR from the beginning of the class.	10 minutes

Table 1 Class # 1

TPR is introduced as a warm-up activity.

2.3.2.1 New set of commands and words:

- The teacher does a short introduction of key vocabulary showing students images of the chosen words needed to perform the selected commands. The commands are useful words required to help students develop the pre-established class of the day (reading, listening, and etc activities, according to the syllabus). For example: word: piano.
- The teacher says the command out loud and performs the action while students watch the demonstration and listen to the teacher. For example: command: play the piano.
- The teacher repeats the above mentioned process to make sure that everybody is listening and watching her.

- The teacher gives the command and executes the action again but this time she asks the students to imitate her.
- The teacher gives the command to the class without performing the action and repeats this step two or three times as she considers necessary.

Regular class.

Listening and Vocabulary:

- The vocabulary is presented through images then there is a listening according to the established topic and the previously presented vocabulary. First, the teacher plays the audio and students close their books and carefully listen to have an idea of the dialogue.
- Second, the teacher plays for the second time the audio and as learners have the transcript in their books, they need to follow it.
- Learners are required to underline unknown words.
- Third, the audio is played again and students need to read the transcript out loud following the audio.
- A second listening is presented but this time students do not have the transcript, it is played three times. They have to answer to three or four questions or it has a fill in the blanks activity.
- The teacher at the end shares the answers with the students or in groups the students share their answers with their classmates.

Recycling of the TPR from the beginning of the class.

The teacher can follow any of the following processes or combine them,

- The teacher says the commands and she performs different actions while the students need to perform the right one.
- She asks a group of 4 students to come to the front of the class and perform the commands that the teacher says.
- When students feel ready to speak, they can give commands to their classmates (after 10 to 20 hours).

Tuesday:

Tuesday Activity	Time: 45 minutes
2.1 Same set of commands introducing variations.	10 minutes
2.2 Regular Class: Grammar.	25 minutes
2.3 Recycling of the TPR from the beginning of the class.	10 minutes

Table 2 Class #2

TPR is introduced as a warm-up activity.

2.3.2.2 Same set of commands introducing variations:

- The teacher gives the pre learned commands and asks the students to perform them in the same order they were taught in the first class. She can repeat them twice.
- The teacher gives the commands but this time she does not follow the same order, variations are included (new combinations are not included). The teacher and the students perform together the commands.
- The teacher asks the students to perform the commands without her physical interaction. She only says out loud the commands. (Variations are included). She can repeat this process many times as she considers necessary to check that the students know the commands and have not only memorized an order.

Regular class.

Grammar:

- The teacher is required to explain the established grammar to the students and present examples. Then, the teacher and the learners read the grammar box in the book.
- A fill in the blanks activity is usually the next step according to the studied grammar and students are required to write their own sentences. Also, a matching activity and then writing sentences is another type of activity presented in the book.

- The teacher usually writes some sentences on the board and students are asked to find the mistake. At the end of the section the learners and the teacher share the correct answer and questions are allowed if they need extra explanations.

Recycling of the TPR from the beginning of the class.

Wednesday:

Wednesday Activity	**Time: 45 minutes**
3.1 Same set of commands with new combinations introduced.	10 minutes
3.2 Regular Class: Reading.	25 minutes
3.3 Recycling of the TPR from the beginning of the class.	10 minutes

Table 3 Class #3

TPR is introduced as a warm-up activity.

2.3.2.3 Same set of commands with new combinations introduced:

- The teacher says the previous learned commands in the order that she wants before introducing new combinations.
- The teacher says the command introducing the new combination out loud and performs the action while students watch the demonstration and listen to the teacher. For example: previous command: play the piano. Combination: play the guitar.
- The teacher repeats the above mentioned process to make sure that everybody is listening and watching her.
- The teacher gives the command to the class without performing the action and repeats this step two or three times as she considers necessary.

- She can ask students to come to the front and perform the commands she is saying.

Regular class.

Reading:

There is a reading according to the studied grammar and the presented vocabulary. Learners are required to read it and answer some questions or answer a true or false activity. There is a multiple choice or a fill in the blanks exercise.

Recycling of the TPR from the beginning of the class.

Thursday:

Thursday **Activity**	**Time: 45 minutes**
4.1 Same set of commands in writing.	10 minutes
4.2 Regular Class: Writing.	25 minutes
4.3 Recycling of the TPR from the beginning of the class.	10 minutes

Table 4 Class #4

TPR is introduced as a warm-up activity.

2.3.2.4 Same set of commands in writing.

- The teacher writes the command and performs the action, to help students put in writing what they have learned.
- When the teacher has written down all the commands. She reads one by one out loud and asks the students to perform the actions.
- After several repetitions and variations, they have to write them down in their notebooks.
- Students are given a piece of paper and they have to write a command and ask a classmate to perform the written action.

Regular Class.

Writing:

The book usually presents a short paragraph as an example of what the students are asked to develop. Learners are required to write a similar paragraph using the studied grammar and vocabulary words.

Recycling of the TPR from the beginning of the class.

Friday

2.3.2.5 Same set of commands, recycling process.

The teacher can follow any of the below described processes, using variations and combinations.

- Students can be given a worksheet where they have images and they have to listen to a command and put a tick if it matches what they have listened and the given picture or an x if it does not match.
- The teacher provides a worksheet with written commands, students listen to the command and watch the teacher performing the actions and they have to put a tick if it is correct or an x if it is not the correct one.
- The teacher develops a worksheet where she can write down if students perform the correct action with a tick or an x if they do not perform the correctly the command. Students are individually tested.
- The teacher develops a worksheet were students have to match some commands with the correct images, to test them individually.
- When students feel ready they can give their friends the commands.
- The speaking activities are delayed until the students feel comfortable and ready to speak (after 10 to 20 hours of instruction as Freeman and Anderson recommend (109).
- When students feel relaxed and able to speak they can orally participate in class, sharing about a certain topic with their classmates and the teachers.
- Familiar topics such as introducing themselves, habitual activities, hobbies, etc, are part of the speaking class to encourage and motivate students to use the learned vocabulary, but they are never forced to do it.
- The same process was developed every week, but introducing each week a new set of commands.

3 CHAPTER III

DATA ANALYSIS

3.1 ANALYSIS OF QUESTIONNAIRES

The results of the questionnaires were tabulated and analyzed at the beginning of the treatment. The results are shown below. The treatment group was made up of 15 participants in the remedial level of Luisa Cordero High School

3.1.1 Questionnaire: Characteristics of the group

This questionnaire was designed to establish the characteristics of the participants in order to determine if any of these factors affected participants' scores on the pre-test. The first question determined the age range of the students. The results showed that the group was fairly homogenous as most of the students were aged 16, although two were a year younger (Fig. 4) .The participants were asked about their level of English, what they perceived their level to be. The results showed; that half of the students considered themselves to be true beginners, while only two said that they were of an intermediate level (Fig. 5).

Participants were also asked in this questionnaire if they used English outside the classroom with either friends or family, and as they had a low level of English the fact that nearly all of them said they never used it outside of the classroom was confirmed by the data (Fig. 6).

Only one participant received classes outside of the institution, which was important to establish to take into account extraneous factors that may affect the students' learning during the treatment and thus affect the final outcomes. The participant received four hours of classes during the week (Fig. 7).

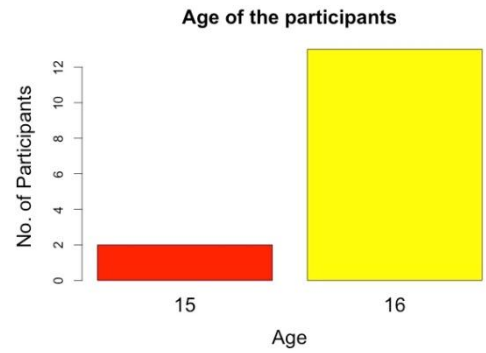


Fig. 4 Histogram showing the age of the participants

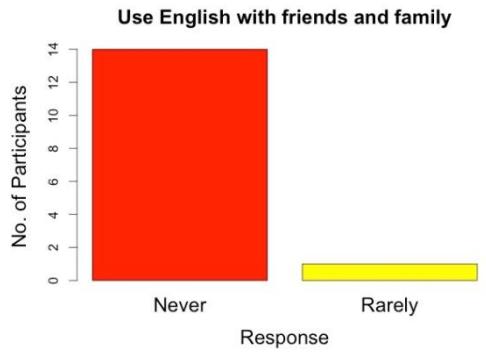


Fig. 6 Histogram about participants' use of English outside the classroom

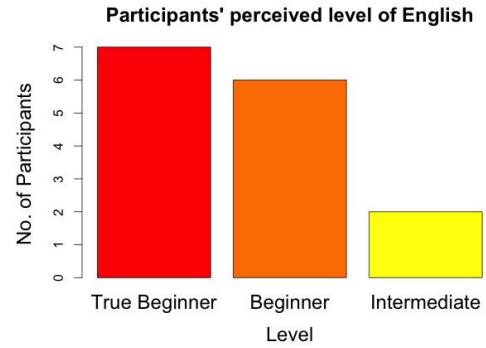


Fig. 5 Histogram about participants' perception about their level of English

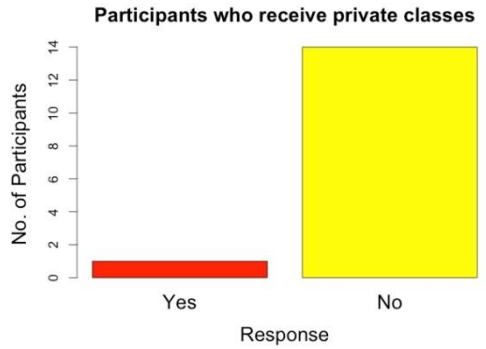


Fig. 7 Histogram about the number of participants who receive private classes

3.1.2 Questionnaire: The best way to learn vocabulary

The second questionnaire sought to establish the participants' opinions of vocabulary and vocabulary learning as motivation has been identified as an important aspect of learning (Dörnyei and Csizér 161). This will establish a baseline, and ability and performance on the tests can be assessed related to the participants' feelings and opinions of vocabulary learning.

The first question simply asked the participants if they liked learning vocabulary. The results showed that a small majority of the participants said that they did not like learning vocabulary (Fig. 8). Of particular interest to this research are the answers to the second question of why they did or did not like learning vocabulary (Fig. 9); participants who liked learning vocabulary generally have a genuine interest in the activity, while those who disliked learning vocabulary suggested that it was because it is difficult or in some cases participants found the activity boring. Participants who said they liked learning vocabulary but could not say why were placed into the category "other".

The third question asked participants directly how difficult they thought learning vocabulary was; the options were “easy”, “fairly easy”, and “difficult” (Fig. 10). The results mirrored the previous question almost exactly with the same participants who said learning vocabulary was interesting also saying it was easy. Those who did not like learning vocabulary because it was difficult responded the same for this question. The participants who said that they liked learning vocabulary for other reasons thought that learning vocabulary was fairly easy, and those who didn’t like learning vocabulary because they thought it was boring also thought that learning vocabulary was easy.

The next question was directed at the seven participants who said that learning vocabulary was difficult; it asked them what part of the learning process they found difficult – most of them had problems in remembering the words while one suggested that spelling was the most difficult part (Fig. 11).

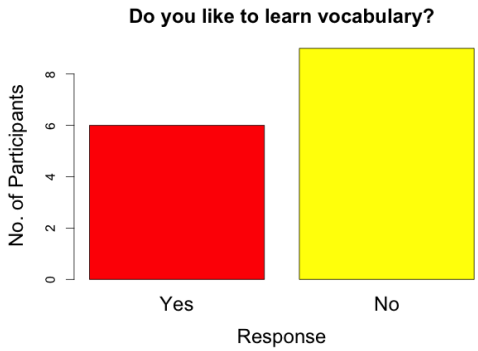


Fig. 8 Histogram about the number of participants who like learning vocabulary

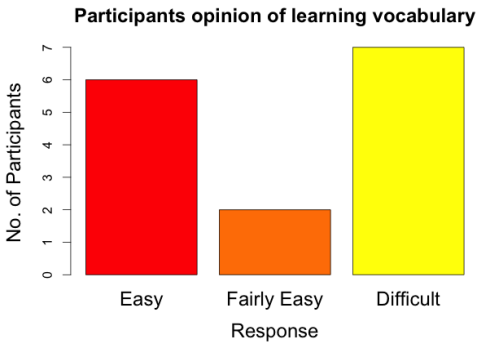


Fig. 10 Histogram about participants' level of difficulty when learning vocabulary

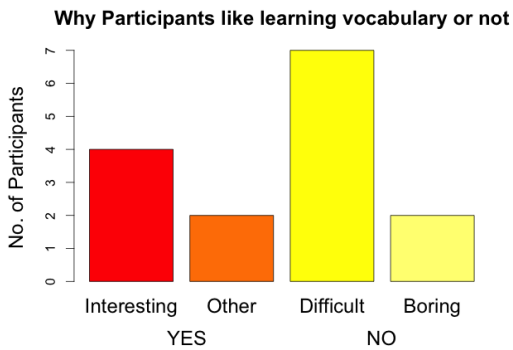


Fig. 9 Histogram about participants’ opinion about vocabulary learning

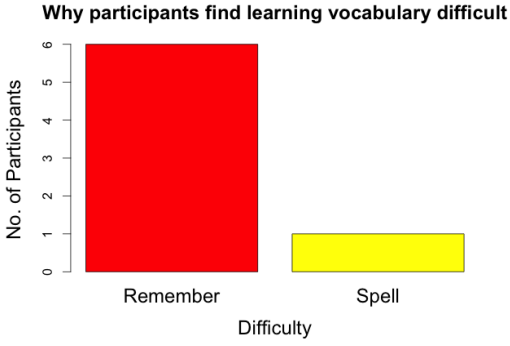


Fig. 11 Histogram about what participants find difficult when learning vocabulary

Question 5 asked participants what the best way was for them to learn vocabulary; through images, physical movements, videos or songs. The results showed that the majority thought movement or images were the best way that they learned vocabulary, which would help recall (Richards and Rodgers 227), although a small number preferred songs and videos (Fig. 12). As the most common method of learning vocabulary is repetition, we asked the participants if they thought this was the best way to learn vocabulary; the majority said that they did not consider this the best way to learn vocabulary (Fig. 13) and when asked why, the overwhelming response was that it is boring (Fig. 14).

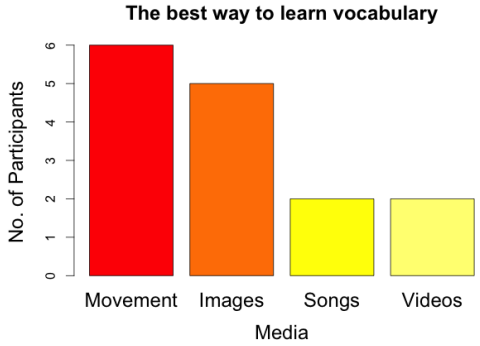


Fig. 12 Histogram about participants' preferences when learning vocabulary

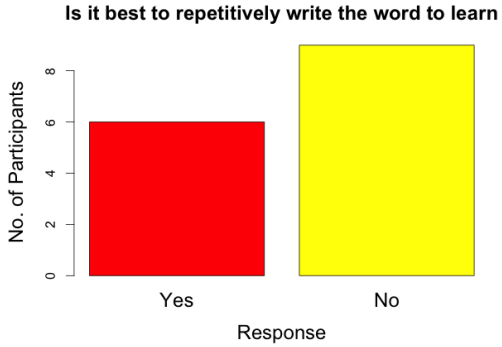


Fig. 13 Histogram about participants' perception about the current method

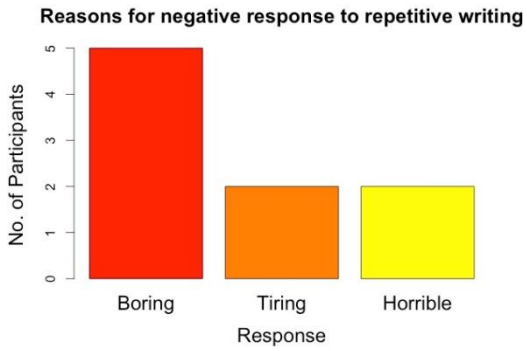


Fig. 14 Histogram about participants' reasons for not liking the current method

3.2 PRE-TEST

The students were administered the pre-test before the treatment and the results are presented below (Table 5).

Test Section	Mean	Standard Deviation	Minimum Score	Maximum Score	Range
Vocabulary Section 1	3.87	1.19	2	6	4
Vocabulary Section 2	3.33	0.98	2	5	3
Vocabulary Overall	3.60	1.04	2	5.5	3.5
Listening	2.93	1.03	2	4	2
Reading	2.00	1.07	0	4	4
Writing	1.53	1.13	0	4	4
Speaking	3.40	0.99	2	5	3
Pre-test Score	13.47	4.30	7.5	22.5	15

Table 5 Results of the Pre-test

The table shows that the overall level of students was low, given that each section is over a maximum of 10 points and the test itself is over 50 points.

3.2.1 Pre-test Vocabulary Section

The first vocabulary section measured participants' ability to recognize and state the correct vocabulary for the actions that the teacher was doing. In this section the majority of participants could recognize at least four of the 10 actions (Fig. 15). The second section measured participants' ability to recognize a verb and mime the associated action; students did slightly less well on this section with an average of 3.33, although the students as a group were more evenly spread (Fig. 16).

The final score used to grade the test was based on an average of the two vocabulary sections; the results shown below (Fig. 17) reflect the fact that participants in general were of similar abilities in both sections.

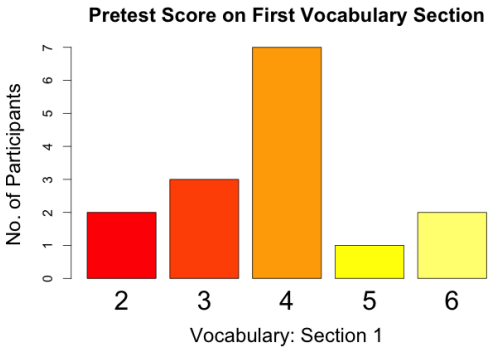


Fig. 15 Histogram: Pre-test score on first vocabulary section

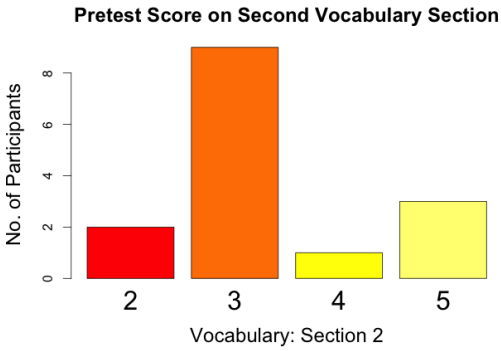


Fig. 16 Histogram: Pre-test score on second vocabulary section

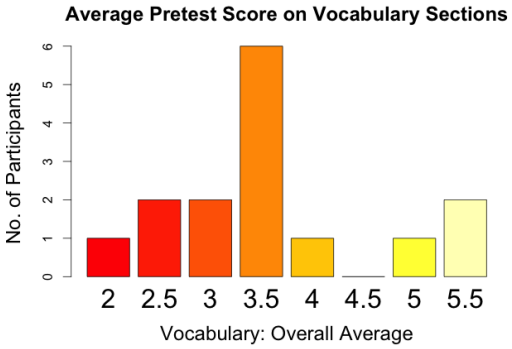


Fig. 17 Histogram: average of the two vocabulary sections

3.2.2 Pre-test Listening Section

The listening section was graded over 10 points although there were only five correct options. This led to a possibility of only five grades which makes it difficult to achieve a good spread of grades. The results were evenly spread between two points and four points (Fig. 18). Three is actually an impossible score and so the students were all close in this area (1 out of five and two out of five).

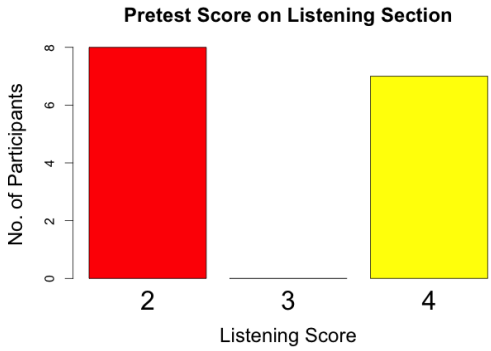


Fig. 18 Histogram: Pre-test Listening Score

3.2.3 Pre-test Reading Section

The reading section was also made up of five correct options with each being worth two points without the possibility of half marks. Therefore the results shows a normal distribution with the majority of participants getting one answer correct (Fig. 19).

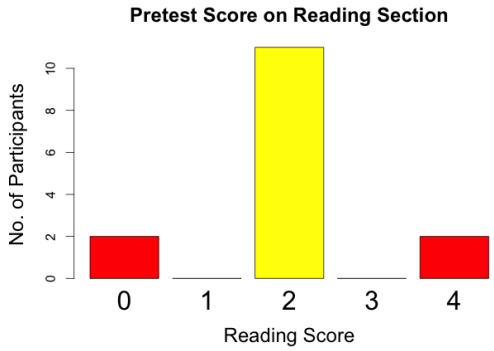


Fig. 19 Histogram: Pre-test Reading score

3.2.4 Pre-test Writing Section

In the writing section, the participants were asked to produce five sentences about their daily routine where correct use, spelling and grammar were considered in the rubric (Appendix 8) with a perfect sentence awarded two points, as we can see from the graph above, writing was not a strong area for any of the students (Fig. 20). The average score was 1.53 over 10.

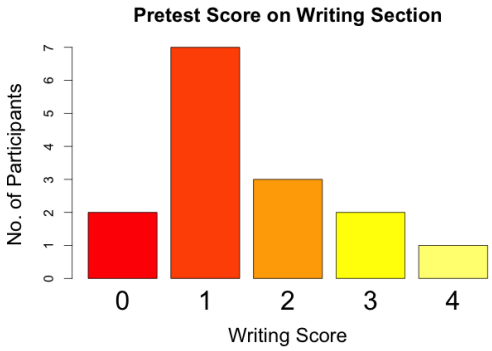


Fig. 20 Histogram: Pre-test Writing score

3.2.5 Pre-test Speaking Section

This section of the test was based on five basic questions about themselves and about their preferences. In general the participants did better on this section than in the writing (Fig. 21) with an average score of 3.40 out of 10, although two participants managed to get 5 out of 10 correct.

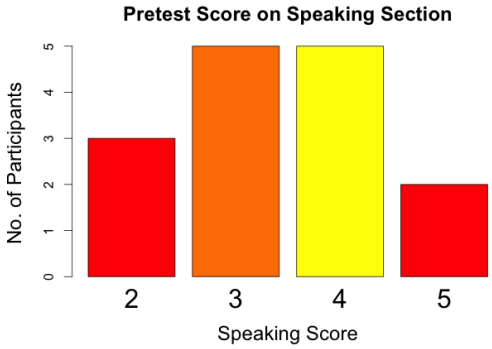


Fig. 21 Histogram: Pre-test Speaking score

3.2.6 Pre-test Overall Results

There was a wide spread of results overall (Fig. 22), because in general the students who were relatively good in one section were relatively good in the other sections. Therefore while the average score was 13.47, there was a range of 15 points between the highest and lowest scores and a standard deviation of 4.3 points about the mean. However, the scores are on the low side for the level students should be at and the highest score was less than 50% of the possible maximum grade of 50 points.

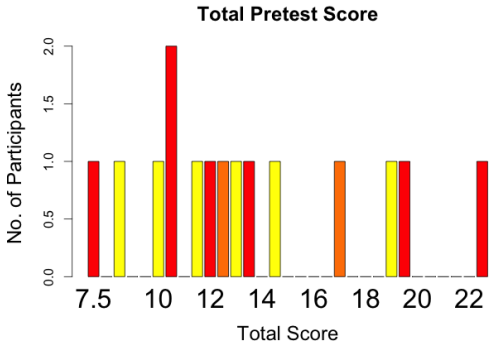


Fig. 22 Histogram: Pre-test Total score

3.3 RELATIONSHIPS BETWEEN THE QUESTIONNAIRES AND THE PRE-TEST

In order to establish links between the habits and opinions of the participants and their abilities as shown in the pre-test, a series of ANOVA (Appendix 11) were run to test the relationships between the participants' responses to the questionnaires and the results of the pre-test using Rstudio (Version 0.98.501). Each section has the associated results of the ANOVA tabulated and any significant relationships are plotted in Boxplots.

3.3.1 Participant characteristics and the Pre-test

3.3.1.1 Age

The age of the participants was tested against all sections of the test and the results are shown here (Table 6):

Age	Df	Sum Sq	Mean Sq	F value	Pr(>F)	Significance
Vocabulary Section 1	1	0.93	0.926	0.64	0.44	
Vocabulary Section 2	1	1.03	1.026	1.08	0.32	
Vocabulary Overall	1	0.97	0.975	0.9	0.36	
Listening	1	0.01	0.01	0.01	0.93	
Reading	1	2.31	2.31	2.19	0.16	
Writing	1	4.96	4.96	5.05	0.043	*
Speaking	1	0.83	0.831	0.85	0.37	
Pre-test Score	1	33	33	1.9	0.19	
		Significance codes: 0 '***', 0.001 '**', 0.01 '*', 0.05 '.', 0.1 ' '				

Table 6 ANOVA results of the effect of age on the pre-test results

The table of results shows that only one relationship shows significant results, which was age of participant against writing score. When plotted, this result (Fig. 23) shows that the fifteen-year-old students (n = 2) did significantly better than the sixteen year olds on average. As the sample size is small this result has been discounted as a real factor affecting participants' ability in writing.

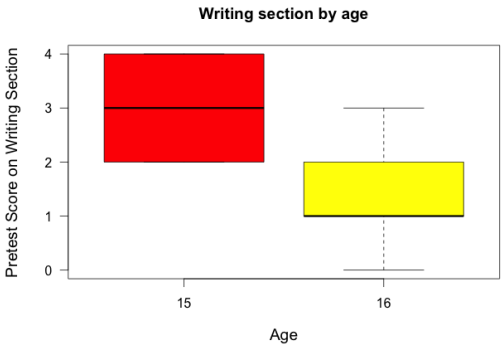


Fig. 23 Boxplot showing the influence of age on writing performance

3.3.1.2 Perceived level of English

Level	Df	Sum Sq	Mean Sq	F value	Pr(>F)	Significance
Vocabulary Section 1	2	4.47	2.24	1.76	0.21	
Vocabulary Section 2	2	1.83	0.917	0.96	0.41	
Vocabulary Overall	2	2.91	1.46	1.43	0.28	
Listening	2	6.17	3.09	4.23	0.041	*
Reading	2	1.24	0.619	0.5	0.62	
Writing	2	2.04	1.02	0.78	0.48	
Speaking	2	6.17	3.086	4.98	0.027	*
Pre-test Score	2	80.9	40.4	2.72	0.11	
		Significance codes: 0 '***', 0.001 '**', 0.01 '*', 0.05 '.', 0.1 ' '				

Fig. 24 ANOVA results of the effect of the participants' perceived level of English on the pre-test results

In the case of participants' perceived level of English, two areas of the pre-test were shown to be significantly affected – the listening and speaking sections (Table 6). Plots of these results show clearly that students who are weak in the areas of listening and speaking – two essential areas of English competence – feel that their level of English is low (Fig. 25) (Fig. 26) .

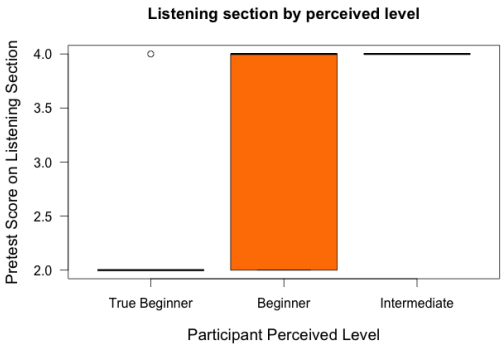


Fig. 25 Boxplot showing the pre-test score on the listening section separated by Participants' Perceived Level of English

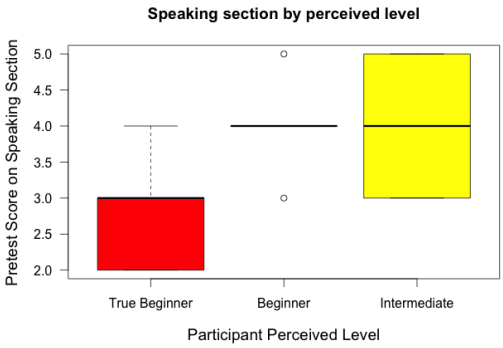


Fig. 26 Boxplot showing the pre-test score on the speaking section separated by Participants' Perceived Level of English

3.3.1.3 Use of Language Outside of the Classroom

Use of English	Df	Sum Sq	Mean Sq	F value	Pr(>F)	Significance
Vocabulary Section 1	1	1.38	1.38	0.97	0.34	
Vocabulary Section 2	1	2.98	2.976	3.74	0.075	.
Vocabulary Overall	1	2.1	2.1	2.1	0.17	
Listening	1	1.22	1.22	1.16	0.3	
Reading	1	0	0	0	1	
Writing	1	2.3	2.31	1.94	0.19	
Speaking	1	2.74	2.743	3.28	0.093	.
Pre-test Score	1	32.8	32.8	1.88	0.19	
		Significance codes: 0 '***', 0.001 '**', 0.01 '*', 0.05 '.', 0.1 ' '				

Table 7 Results of ANOVA test for scores on the pre-test against Participants' Use of English Outside of the Classroom

As almost all participants never use English outside of the classroom, and others only rarely use it, there are no significant relationships between English competence and the use of English outside of the classroom (Table 7).

3.3.2 Reception of Extra Tuition Outside of the Classroom and Number of Hours taken

Private classes	Df	Sum Sq	Mean Sq	F value	Pr(>F)	Significance
Vocabulary Section 1	1	4.88	4.88	4.27	0.059	.
Vocabulary Section 2	1	2.98	2.976	3.74	0.075	.
Vocabulary Overall	1	3.87	3.87	4.48	0.054	.
Listening	1	1.22	1.22	1.16	0.3	
Reading	1	4.29	4.29	4.76	0.048	*
Writing	1	6.52	6.52	7.56	0.017	*
Speaking	1	2.74	2.743	3.28	0.093	.
Pre-test Score	1	87.4	87.4	6.62	0.023	*
		Significance codes: 0 '***', 0.001 '**', 0.01 '*', 0.05 '.', 0.1 ' '				

Table 8 Results of ANOVA test for scores on the pre-test against Participants' Reception of Extra Tuition outside of the classroom and Hours Received.

Only one participant claimed to receive classes outside of the institution, which showed a significant relationship in both the reading and writing section of the test as well as in the overall score (Table 8); as the same student is the only one with hours of tuition outside of the classroom, exactly the same results are shown when hours of classes are used so these results are not shown.

The results of the three significant scores show that the participant who received private tuition was significantly better in the area of reading, although one other participant also scored four points (Fig. 27), and in the area of writing this participant was better than all the rest (Fig. 28). Overall this participant was amongst the best in all categories, which is clearly shown by having an overall score higher than all the other participants (Fig. 29). However, it should be noted that this score is still less than 50% of the highest grade possible (22.5/50).

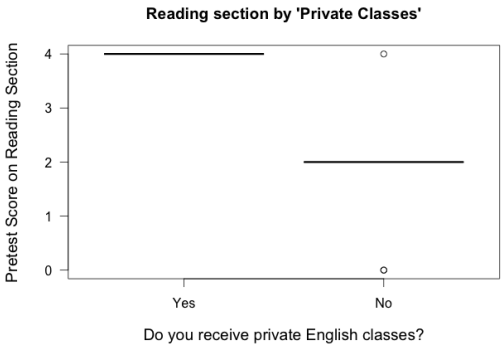


Fig. 27 Boxplot showing the pre-test score on the reading section separated by Participants' Reception of Extra Tuition

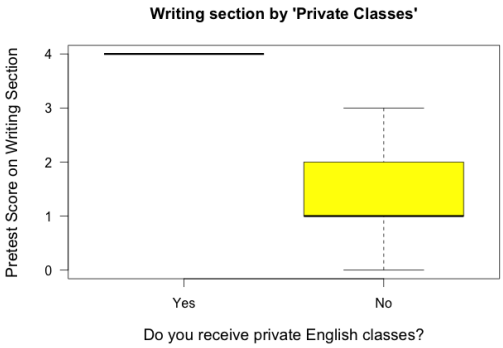


Fig. 28 Boxplot showing the pre-test score on the writing section separated by Participants' Reception of Extra Tuition

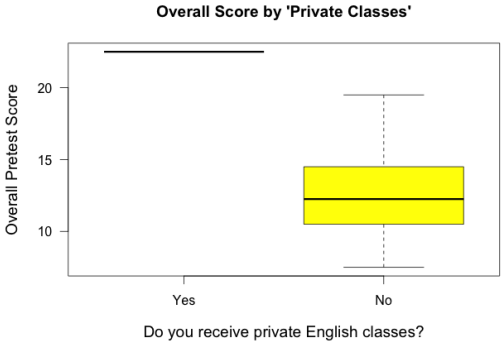


Fig. 29 Boxplot showing the overall pre-test score separated by Participants' Reception of Extra Tuition

3.3.3 Participant opinions and the Pre-test

3.3.3.1 Do you like to learn vocabulary?

Like Learning Vocabulary	Df	Sum Sq	Mean Sq	F value	Pr(>F)	Significance
Vocabulary Section 1	1	4.01	4.01	3.32	0.092	.
Vocabulary Section 2	1	2.5	2.5	3	0.11	
Vocabulary Overall	1	3.21	3.21	3.51	0.084	.
Listening	1	11.38	11.38	41.6	2.20E-05	***
Reading	1	4.44	4.44	5	0.044	*
Writing	1	4.01	4.01	3.8	0.073	.
Speaking	1	3.6	3.6	4.68	0.05	*
Pre-test Score	1	125	124.8	12.1	0.0041	**
		Significance codes: 0 '***', 0.001 '**', 0.01 '*', 0.05 '.', 0.1 ' '				

Table 9 Results of ANOVA test for scores on the pre-test against participants' response to the question whether they liked learning vocabulary or not

There is a significant relationship between the scores on various parts of the test with respect to whether or not the participants actually like learning vocabulary (Table 9). The most notable of these is an extremely significant relationship with the listening results, and the pre-test score was also highly significantly related to the participants' opinion of liking learning vocabulary. The reading and speaking scores were also significantly related to liking learning vocabulary, while none of the vocabulary sections themselves were.

The boxplots clearly show the tendencies that have been signaled by the ANOVA; all of those who like learning vocabulary scored four points on the listening section of the test while only one of those who did not like it achieved the same score – all the rest scored two points (Fig. 30). Those who like learning vocabulary also managed a better score on the reading section, although this difference is not so clear-cut (Fig. 31) with much the same pattern for the speaking section although with some overlap (Fig. 32). However, the overall pre-test score shows a clear pattern that those who have a preference for learning vocabulary generally do better (Fig. 33).

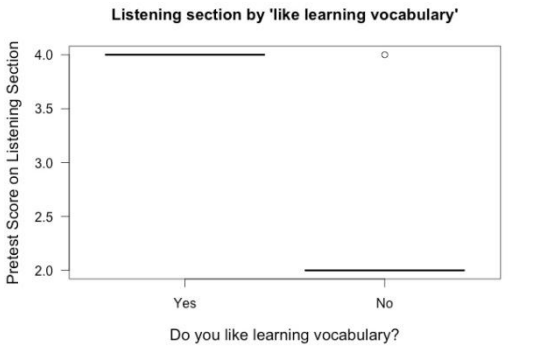


Fig. 30 Boxplot showing the pre-test score on the listening section separated by whether participants like learning vocabulary or not

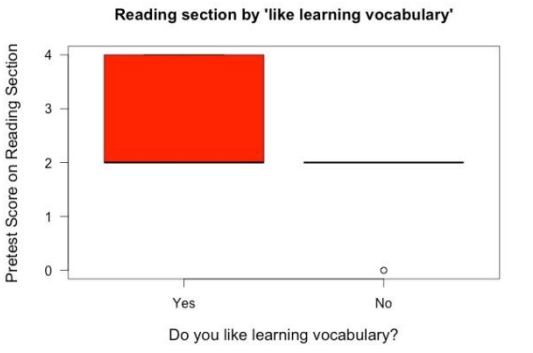


Fig. 31 Boxplot showing the pre-test score on the reading section separated by whether participants like learning vocabulary or not

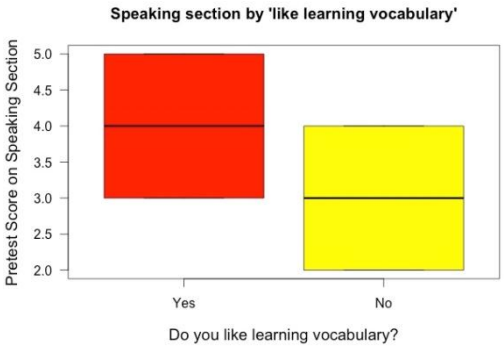


Fig. 32 Boxplot showing the pre-test score on the speaking section separated by whether participants like learning vocabulary or not

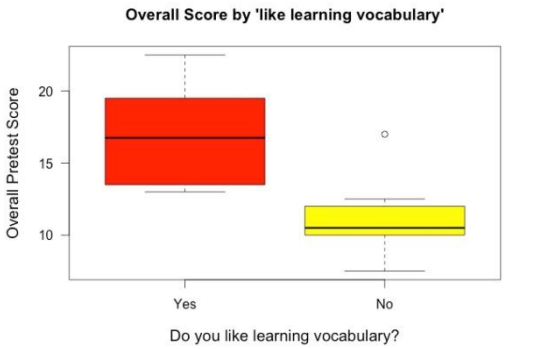


Fig. 33 Boxplot showing the overall pre-test score separated by whether participants like learning vocabulary or not

3.3.3.2 Why do you like or dislike learning vocabulary?

Why Like or Dislike Learning Vocabulary	Df	Sum Sq	Mean Sq	F value	Pr(>F)	Significance
Vocabulary Section 1	3	11.55	3.85	5.18	0.018	*
Vocabulary Section 2	3	7.83	2.61	5.22	0.017	*
Vocabulary Overall	3	9.43	3.143	6.1	0.011	*
Listening	3	11.5	3.83	12.3	0.0007	***
Reading	3	6.57	2.19	2.56	0.11	
Writing	3	5.38	1.79	1.6	0.25	
Speaking	3	6.92	2.307	3.8	0.043	*
Pre-test Score	3	157	52.3	5.62	0.014	*

Significance codes: 0 '***', 0.001 '**', 0.01 '*', 0.05 '.', 0.1 ' '

Table 10 Results of ANOVA test for scores on the pre-test against participants' response to the question why they liked learning vocabulary or not

Why participants liked or disliked learning vocabulary further separated the previous results for like or dislike learning vocabulary, and it highlighted other areas as significant (Table 10). There is now a significant relationship with the vocabulary sections while reading is no longer significant.

The answers to this question helped separate the different groups with respect to vocabulary; scores on the three vocabulary sections (Fig. 34) (Fig. 35) (Fig. 36) were significantly higher for those participants who claimed they found vocabulary learning interesting, while those who couldn't define why they liked learning vocabulary, classed as other, on average did less well than the students who didn't like learning vocabulary. The participants who previously claimed to not like learning vocabulary also were slightly separated out by this question from those who did not like it because it was boring doing better than those who claimed they did not like it because it was difficult.

The listening section (Fig. 37) again separated out clearly. Those who find vocabulary learning interesting or like it for other reasons scored better than those who find it difficult or boring – one participant who found it difficult managed to score the same as those who found it interesting although it should be remembered that the difference in scores is actually only one question.

The speaking section showed much the same tendencies – it can be noted that in general those who said they find learning vocabulary difficult in general did the least well (Fig. 38), and the overall scores (Fig. 39) show a clear separation with those who find vocabulary interesting or have other reasons doing better than those who find it difficult or boring.

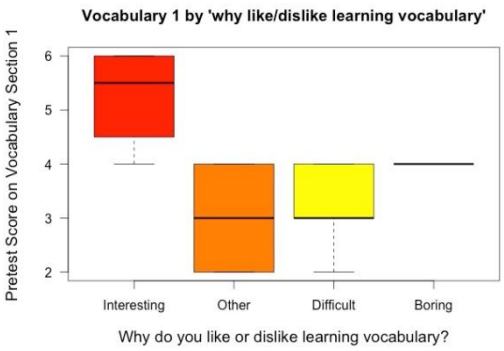


Fig. 34 Boxplot showing the pre-test score on the first vocabulary section separated by why participants like learning vocabulary or not

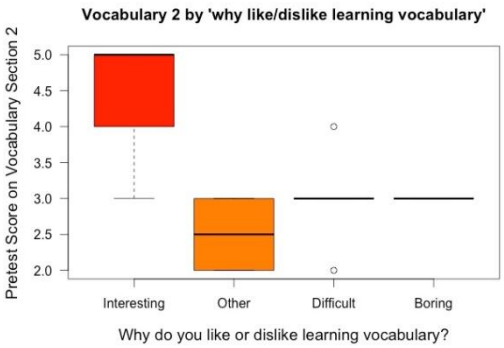


Fig. 35 Boxplot showing the pre-test score on the second vocabulary section separated by why participants like learning vocabulary or not

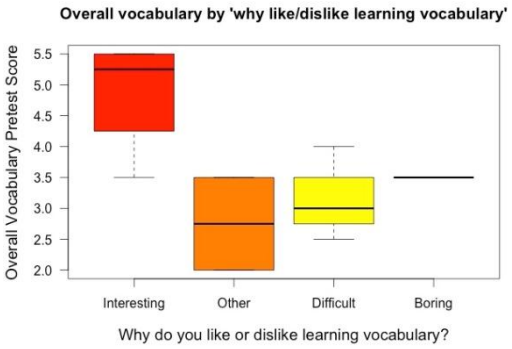


Fig. 36 Boxplot showing the overall vocabulary score on the pre-test separated by why participants like learning vocabulary or not

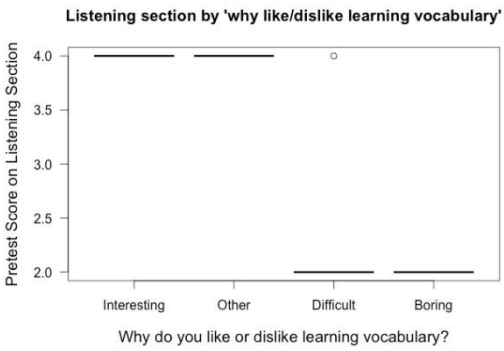


Fig. 37 Boxplot showing the pre-test score on the listening section separated by why participants like learning vocabulary or not

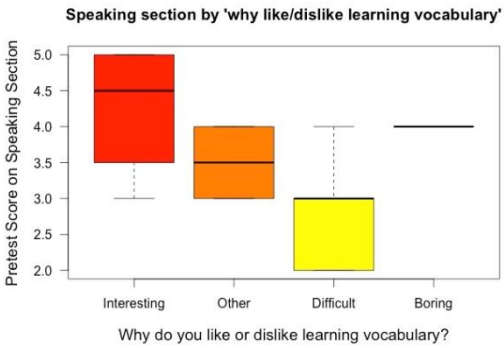


Fig. 38 Boxplot showing the pre-test score on the speaking section separated by why participants like learning vocabulary or not

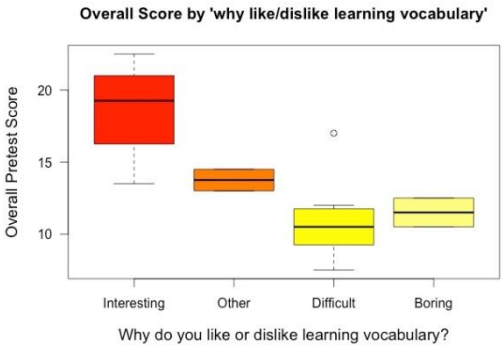


Fig. 39 Boxplot showing the overall pre-test score separated by why participants like learning vocabulary or not

3.3.3.3 Opinion of ease of vocabulary learning

Ease of learning vocabulary	Df	Sum Sq	Mean Sq	F value	Pr(>F)	Significance
Vocabulary Section 1	2	9.47	4.74	5.54	0.02	*
Vocabulary Section 2	2	4.83	2.417	3.41	0.067	.
Vocabulary Overall	2	6.91	3.45	5.06	0.025	*
Listening	2	6.17	3.09	4.23	0.041	*
Reading	2	1.24	0.619	0.5	0.62	
Writing	2	2.38	1.19	0.93	0.42	
Speaking	2	6.84	3.42	6.07	0.015	*
Pre-test Score	2	89.2	44.6	3.15	0.08	.
		Significance codes:	0 '***', 0.001 '**', 0.01 '*', 0.05 '.', 0.1 ' '			

Table 11 Results of ANOVA test for scores on the pre-test against participants' opinion of the ease of learning vocabulary

The results of the ANOVA (Table 11) suggest that how easy participants feel learning vocabulary is has a direct relation with their abilities in vocabulary, listening, and speaking

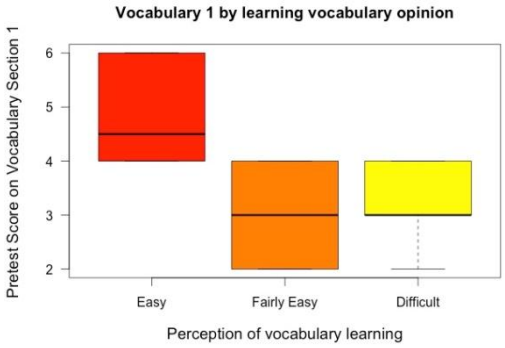


Fig. 40 Boxplot showing the pre-test score on the first vocabulary section separated by participants' opinion of the ease of learning vocabulary

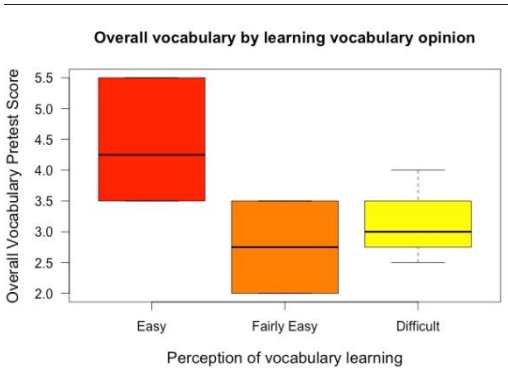


Fig. 41 Boxplot showing the overall vocabulary score on the pre-test separated by participants' opinion of the ease of learning vocabulary

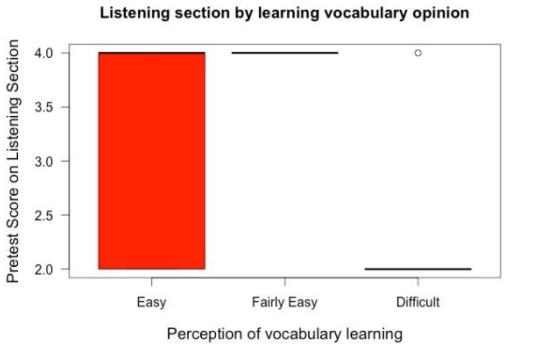


Fig. 42 Boxplot showing the pre-test score on the listening section separated by participants' opinion of the ease of learning vocabulary

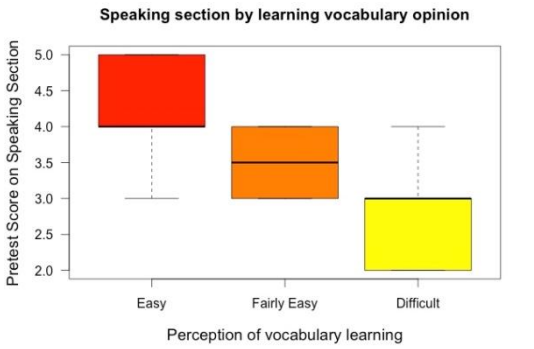


Fig. 43 Boxplot showing the pre-test score on the speaking section separated by participants' opinion of the ease of learning vocabulary

While the ANOVA shows a significant difference in the first vocabulary section and the overall vocabulary score, the graphs (Fig. 40 and Fig. 41) show that it is only those that say vocabulary learning is easy who have a higher average score than the other two sections. It is difficult to see the pattern in the listening section (Fig. 42), although it can be noted that those participants who found it difficult generally scored only two points. The speaking section (Fig. 43), while having some overlap, shows a very clear tendency of decreasing scores from Easy to Fairly Easy to Difficult.

3.3.3.4 What do you find difficult about learning vocabulary

What is difficult about learning vocabulary	Df	Sum Sq	Mean Sq	F value	Pr(>F)	Significance
Vocabulary Section 1	1	1.93	1.93	6.43	0.052	.
Vocabulary Section 2	1	0	0	0	1	
Vocabulary Overall	1	0.482	0.482	1.75	0.24	
Listening	1	0.1	0.095	0.14	0.72	
Reading	1	0.1	0.095	0.14	0.72	
Writing	1	1.52	1.52	1.43	0.29	
Speaking	1	0.595	0.595	1.05	0.35	
Pre-test Score	1	7.3	7.29	0.73	0.43	
		Significance codes: 0 '***', 0.001 '**', 0.01 '*', 0.05 '.', 0.1 ' '				

Table 12 Results of ANOVA test for scores on the pre-test against what participants find difficult about learning vocabulary

The results of the ANOVA (Table 12) showed no significant relationships between what the participants thought was difficult about learning vocabulary and their results on the pre-test.

3.3.3.5 What is the best way you learn vocabulary?

Best way you learn vocabulary	Df	Sum Sq	Mean Sq	F value	Pr(>F)	Significance
Vocabulary Section 1	3	1.1	0.367	0.22	0.88	
Vocabulary Section 2	3	2.3	0.767	0.76	0.54	
Vocabulary Overall	3	1.57	0.522	0.42	0.74	
Listening	3	2.8	0.933	0.85	0.5	
Reading	3	2.67	0.889	0.73	0.55	
Writing	3	2.73	0.911	0.67	0.59	
Speaking	3	2.97	0.989	1.02	0.42	
Pre-test Score	3	41.7	13.9	0.7	0.57	
		Significance codes: 0 '***', 0.001 '**', 0.01 '*', 0.05 '.', 0.1 ' '				

Table 13 Results of ANOVA test for scores on the pre-test against what participants consider the best way to learn vocabulary is

There were no significant relationships between the answers to the question “what is the best way to learn vocabulary?” and the results of the pre-test (Table 13). This is not surprising, as it would not be expected that this would have an effect on participants’ results in the pre-test.

3.3.3.6 Do you think rewriting of new words is the best way to learn them?

Rewriting new words to learn	Df	Sum Sq	Mean Sq	F value	Pr(>F)	Significance
Vocabulary Section 1	1	6.4	6.4	6.24	0.027	*
Vocabulary Section 2	1	4.44	4.44	6.5	0.024	*
Vocabulary Overall	1	5.38	5.38	7.19	0.019	*
Listening	1	1.6	1.6	1.56	0.23	
Reading	1	4.44	4.44	5	0.044	*
Writing	1	4.01	4.01	3.8	0.073	.
Speaking	1	3.6	3.6	4.68	0.05	*
Pre-test Score	1	92	92	7.15	0.019	*
		Significance codes: 0 '***', 0.001 '**', 0.01 '*', 0.05 '.', 0.1 ' '				

Table 14 Results of ANOVA test for scores on the pre-test against whether participants think writing out a new word again and again is the best way to learn it

There was a good relationship between those participants who thought that learning vocabulary by continual repetition of the new words by writing them out is the best way to learn new vocabulary and their results on the pre-

test (Table 14). The results for each section show that participants who believe that it is effective generally do significantly better than those who do not believe that it is effective (Fig. 44, Fig. 45, Fig. 46, Fig. 47, Fig. 48 & Fig. 49).

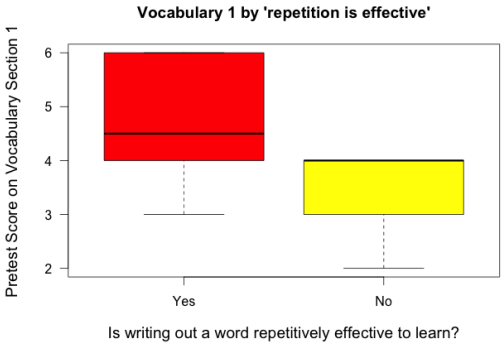


Fig. 44 Boxplot showing the pre-test score on the first vocabulary section separated by whether participants think rewriting a word is the best way to learn it

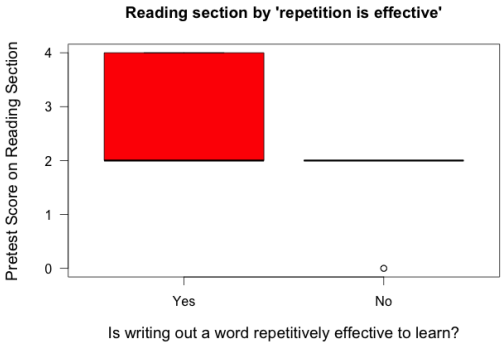


Fig. 47 Boxplot showing the pre-test score on the reading section separated by whether participants think rewriting a word is the best way to learn it

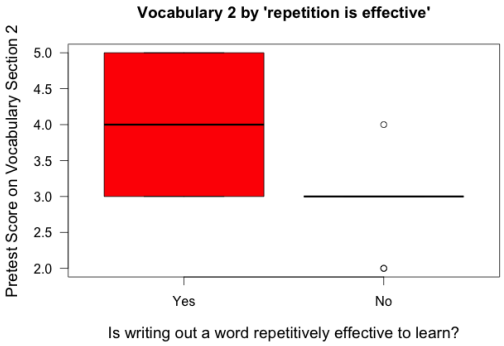


Fig. 45 Boxplot showing the pre-test score on the second vocabulary section separated by whether participants think rewriting a word is the best way to learn it

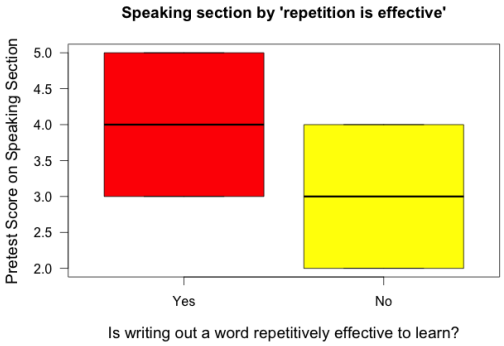


Fig. 48 Boxplot showing the pre-test score on the speaking section separated by whether participants think rewriting a word is the best way to learn it

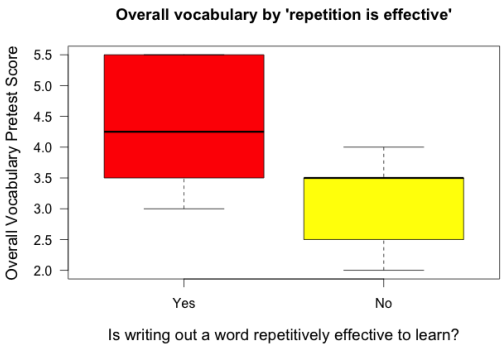


Fig. 46 Boxplot showing the overall vocabulary score on the pre-test separated by whether participants think rewriting a word is the best way to learn it

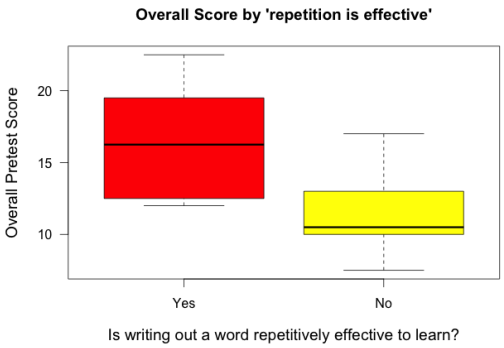


Fig. 49 Boxplot showing the overall pre-test score separated by whether participants think rewriting a word is the best way to learn it

3.3.3.7 Why do you think repetitively writing a word is effective or not?

Why rewriting words is effective or not	Df	Sum Sq	Mean Sq	F value	Pr(>F)	Significance
Vocabulary Section 1	2	0.3	0.15	0.16	0.86	
Vocabulary Section 2	2	1.09	0.544	1.81	0.24	
Vocabulary Overall	2	0.464	0.232	0.48	0.64	
Listening	2	0.8	0.4	0.33	0.73	
Reading	2	2.22	1.111	1.67	0.27	
Writing	2	0.39	0.194	0.18	0.84	
Speaking	2	2.7	1.35	2.45	0.17	
Pre-test Score	2	0.6	0.3	0.03	0.97	
		Significance codes: 0 '***', 0.001 '**', 0.01 '*', 0.05 '.', 0.1 ' '				

Table 15 Results of ANOVA test for scores on the pre-test against why participants think writing out a new word again and again is the best way to learn it or not

The result of why participants thought writing a word was effective or not (Table 15) showed no significant relationship to the scores on the pre-test. This result is not surprising as those who thought that it was effective did not respond to this question.

3.4 POST-TEST

3.4.1 Overall Results

The results of the post-test showed an increase in the mean scores as well as in the minimum score and maximum score, showing that on average the students did better on the post-test than on the pre-test in all sections, supporting Chacón, Abello y Torreblanca's statement that all aspects of language depend on vocabulary knowledge (95-96). The standard deviation was also lower which suggests that the participants were more similar in their abilities compared to before the treatment. This is also reflected in the lowering of the ranges of scores (Table 16).

Test Section	Mean	Standard Deviation	Minimum Score	Maximum Score	Range
Vocabulary Section 1	7.47	0.83	6	9	3
Vocabulary Section 2	6.33	1.11	4	8	4
Vocabulary Overall	6.90	0.78	5.5	8.5	3
Listening	8.13	1.60	6	10	4
Reading	6.93	1.03	6	8	2
Writing	5.73	0.88	4	7	3
Speaking	6.47	0.92	5	8	3
Post-test Score	34.17	2.70	30	38.5	8.5

Table 16 Results of the Post-test

3.4.1.1 Comparison of Pre-test and Post-test scores

The overall differences between the pre-test and post-test scores can be visualized easily in a boxplot (Fig. 50), which clearly shows the gap between the participants' levels before and after the treatment. By graphing the participants' scores individually (Fig. 51), improvements made by all participants are shown along with a general trend of those with lower pre-test scores making greater improvements than those with the higher scores.

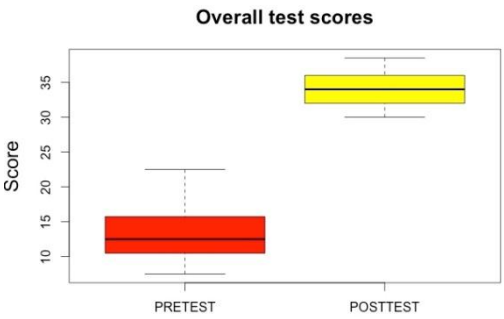


Fig. 50 Boxplot showing the overall pre-test and post-test scores

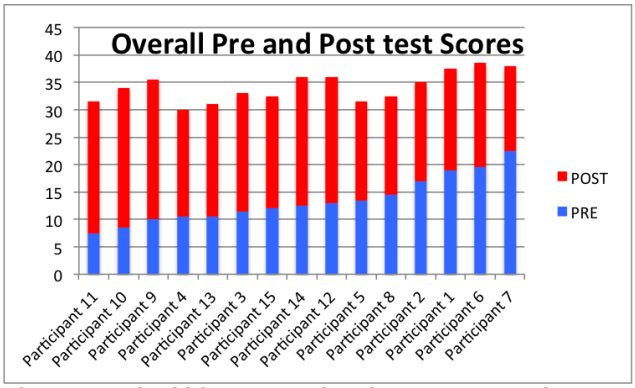


Fig. 51 Stacked histogram showing pre-test and post-test scores separated by participant

3.4.2 T-test between Pre-test and Post-test

While the results were sufficiently emphatic that statistical tests are not necessary, a series of paired t-tests (Appendix 12) were performed for each section of the test and the overall result. Paired t-tests were used as we are comparing differences between the means of the same group before and after treatment. The results show that there was highly significant improvement on all sections of the test (Table 17).

Section of test	Average Pre-test	Average Post-test	Mean of the differences	t value	Degrees of Freedom	p-value
Vocabulary Section 1	3.87	7.47	-3.6	-15.32	14	3.86E-10
Vocabulary Section 2	3.33	6.33	-3	-11.62	14	1.41E-08
Vocabulary Overall	3.60	6.90	-3.3	-17.01	14	9.51E-11
Listening	2.93	8.13	-5.2	-13.67	14	1.73E-09
Reading	2.00	6.93	-4.933	-14.93	14	5.42E-10
Writing	1.53	5.73	-4.2	-17.28	14	7.70E-11
Speaking	3.40	6.47	-3.067	-10.21	14	7.19E-08
Overall Test Score	*13.47*	*34.17*	*-20.7*	*-26.42*	*14*	*2.40E-13*

Table 17 Results of paired t-tests for the results of the pre-test and post-test

3.4.3 Individual results by sections

While the overall trend was towards improvement by all participants, a trend towards those with lower initial scores doing relatively better than those with higher initial scores was noted in the overall scores. It therefore seems worthwhile to explore each individual section of the test to look for patterns and to investigate which areas have improved the most.

3.4.3.1 Vocabulary sections

The improvement of the post-test scores in the vocabulary section is notable in both sections and the cumulative result overall (Fig. 52, Fig. 53, Fig. 54). In the individual graphs of the two sections and the overall scores, we can note the same general trend for low scorers in the pre-test to improve more than high scorers (Fig. 55, Fig. 56, Fig. 57).

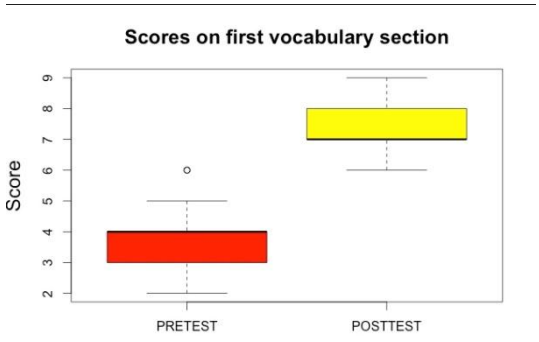


Fig. 52 Boxplot showing the pre-test and post-test scores for the first vocabulary section

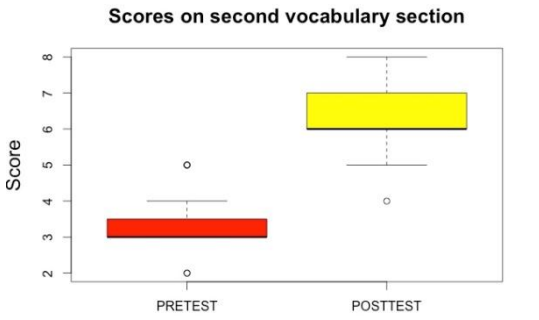


Fig. 53 Boxplot showing the pre-test and post-test scores for the second vocabulary section

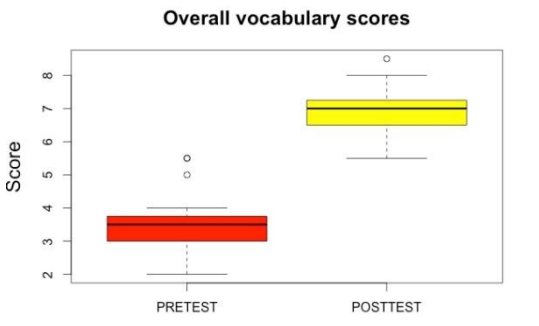


Fig. 54 Boxplot showing the overall vocabulary scores for the pre-test and post-test

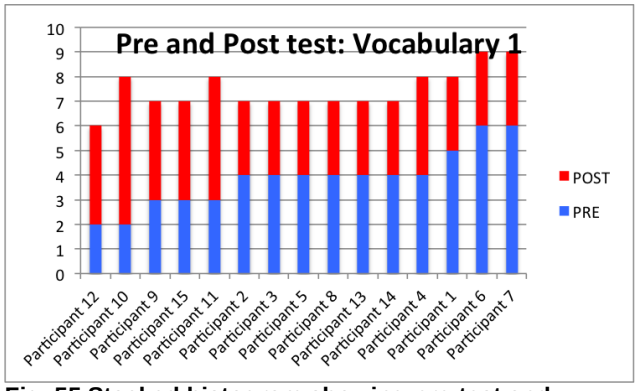


Fig. 55 Stacked histogram showing pre-test and post-test scores for the first vocabulary section separated by participant

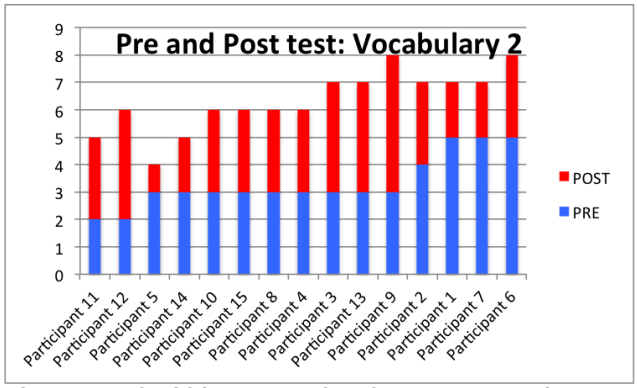


Fig. 56 Stacked histogram showing pre-test and post-test scores for the second vocabulary section separated by participant

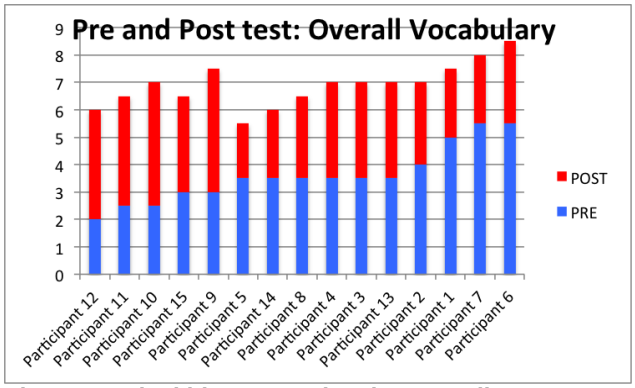


Fig. 57 Stacked histogram showing overall vocabulary scores for the pre-test and post-test separated by participant

3.4.3.2 Listening section

The listening section of the test is one that shows greater variability in the scores in the post-test compared to the pre-test (Fig. 58). However, there was marked improvement throughout the group with lower participants and higher participants generally improving more or less equally (Fig. 59).This supports Segalowitz, Laufer and Hulstijin's affirmation that effective listening comes from a learners depth of knowledge of the lexicon (qtd. in Rost 168) It is interesting to note that five of the participants managed to achieve the maximum score in this section, two of whom only scored two points in the pre-test listening section.

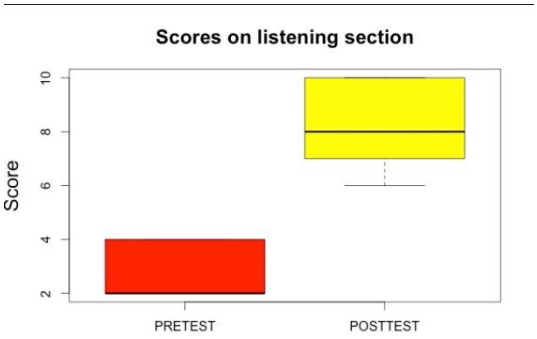


Fig. 58 Boxplot showing the pre-test and post-test scores for the listening section

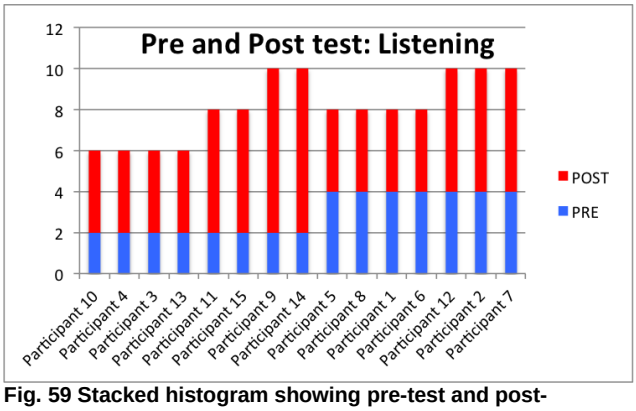


Fig. 59 Stacked histogram showing pre-test and post-test scores for the listening section separated by participant

3.4.3.3 Reading section

The results of the reading section highlight the possible success of the treatment. The pre-test average was 2.00 while the post-test average was 6.93 – almost five points better (Fig. 60). This section of the test again shows a general trend for lower participants to improve more than higher participants and those that failed to score in the pre-test managed to score six points in the post-test – above average for the group (Fig. 61). This result supports the idea that reading comprehension ability is linked directly to vocabulary knowledge, and thus a better result is obtained in the post-test (Vadasy and Nelson 147).

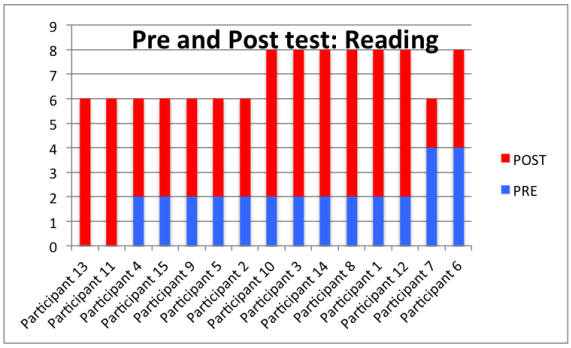


Fig. 60 Stacked histogram showing pre-test and post-test scores for the reading section separated by participant

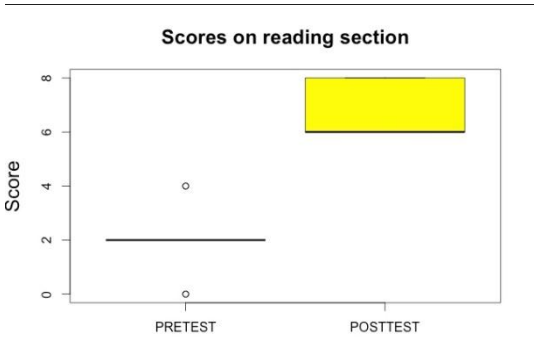


Fig. 61 Boxplot showing the pre-test and post-test scores for the reading section

3.4.3.4 Writing section

The results of the writing section again highlight the possible success of the treatment; the average improvement was 4.20 points (Fig. 62), again with the general trend for lower participants to improve more than higher participants (Fig. 63). Writing ability has been shown to be directly linked to vocabulary knowledge ad so supports the effectiveness of learning vocabulary on all areas of language competence (Vadasy and Nelson 147)

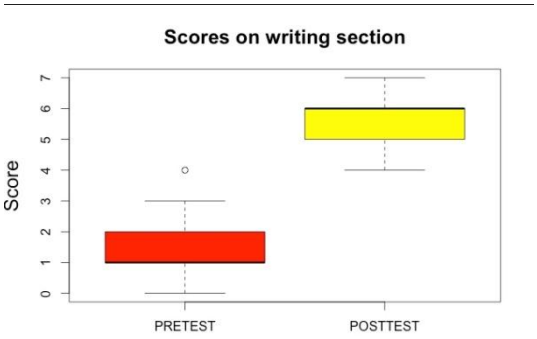


Fig. 62 Boxplot showing the pre-test and post-test scores for the writing section

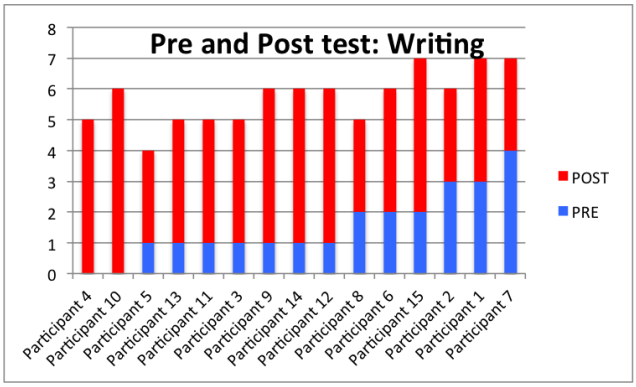


Fig. 63 Stacked histogram showing pre-test and post-test scores for the writing section separated by participant

3.4.3.5 Speaking section

The speaking section results are less eye-catching as the improvements were generally lower than in other sections of the test. However, they were significant with the average score jumping from 3.40 to 6.47 (Fig. 64), with all students scoring at least five out of ten – which was the maximum score for the

pre-test. The general trend for lower participants in this section to improve more than higher participants is still evident (Fig. 65). Speaking level is strongly linked to vocabulary knowledge (Rose 124), and the improvement between the pre- and post-tests can be attributed to the students' enhanced vocabulary bases.

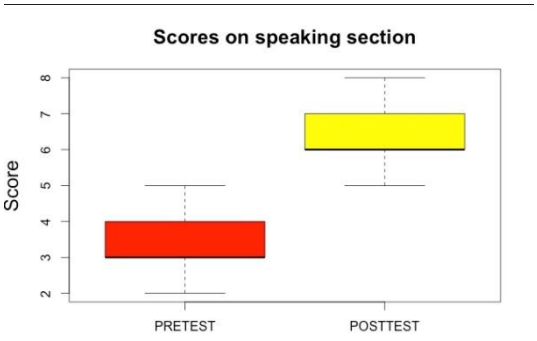


Fig. 64 Boxplot showing the pre-test and post-test scores for the speaking section

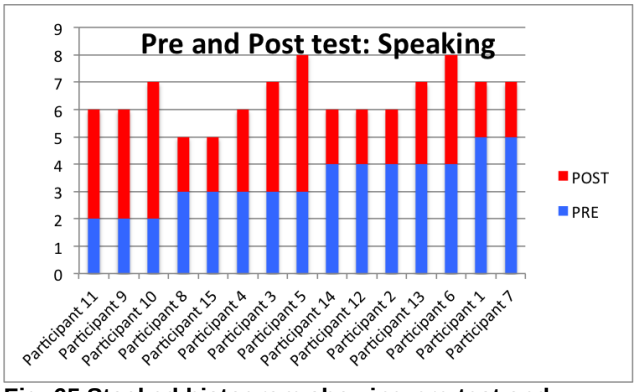


Fig. 65 Stacked histogram showing pre-test and post-test scores for the speaking section separated by participant

3.5 POST TREATMENT INTERVIEWS

After the post-test was given, the participants were interviewed to gauge their opinion of TPR as a learning method. This was done to see if students thought that TPR was as useful and entertaining as suggested by García and Baker (221) and allowed the students to develop their language skills in a holistic manner (Bancroft 1). The first question asked students what they thought of the classes that they received, and the overwhelming response was that the classes had been a positive experience, with two participants actually classing it as useful (Fig. 66). Another aspect the post treatment questionnaire touched on was whether or not the participants enjoyed the classes – which all of the participants said they did – and asked the reasons why. There was a pretty even split between those who liked it because it helped them remember words and those who said it helped them learn new ones (Fig. 67).

All participants agreed that TPR was useful for learning vocabulary, although they suggested different areas in which it had helped them particularly, with most saying that it had helped their vocabulary, followed by those who thought it helped their speaking (Fig. 68). However, no significant relationship

was found between the parts of English the students said it had helped them and their actual improvements.

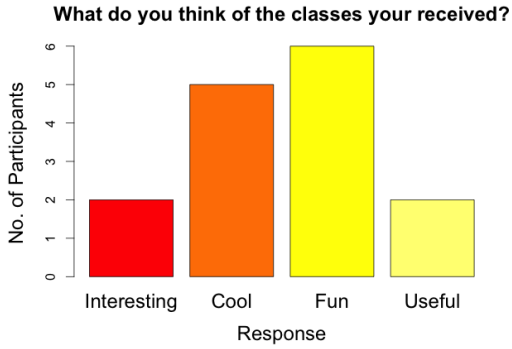


Fig. 66 Histogram showing participants' responses to what they thought about the TPR classes

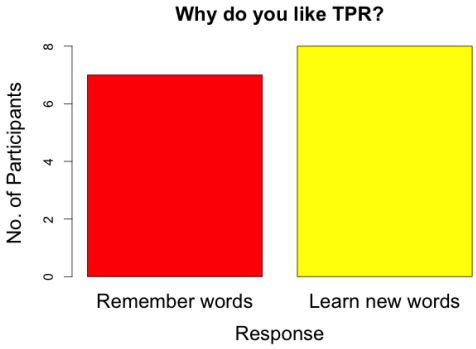


Fig. 67 Histogram of reasons given why participants liked TPR

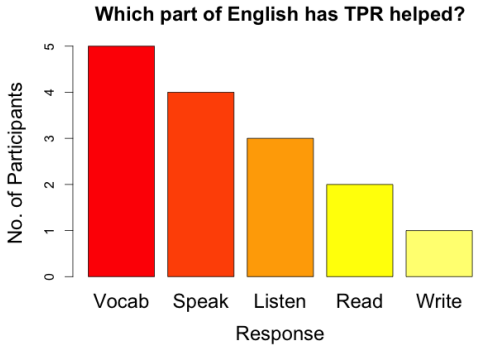


Fig. 68 Histogram showing which area of English they feel TPR has helped most

4 CHAPTER IV

DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

4.1 DISCUSSION

The characterization of the group showed the group to be relatively homogenous, with participants of the same age, most of whom do not use English outside of the classroom or receive classes outside of the institution. The only characteristic that stood out was that the participants perceived themselves to be in three categories with respect to their level of English. The results of the pre-test were compared against these characters and one interesting fact came to light; participants' perceived level of English is significantly related to their ability in listening and speaking. This suggests that a participant's perception of her own level is linked to how she can understand and produce spoken language which itself is strongly linked to vocabulary knowledge. This follows Vadasy and Nelson when they confirm that a student's written and oral skills depend directly on their vocabulary knowledge (147), as is the relationship between effective listening and accessibility of mental lexicon (Segalowitz, Laufer, and Hulstijn, qtd. in Rost 168).

The participant who received extra classes outside of the institution showed herself to be one of the most consistent in all areas of the pre-test, and she thus placed significantly higher in the overall pre-test result as well as in the reading and writing sections. This suggested that this particular participant should be considered carefully in the analysis of the results, as she could be thought of as an uncontrolled variable who may gain extra learning outside of the controlled environment of the TPR classroom. However, the posterior analysis shows that this participant performed only as well as her nearest counterparts and there was no reason to remove her from the tests. This suggests that the extra classes she received did not significantly improve her learning above and beyond the other students in the class. A larger subset of students with and without outside tuition could be investigated in the future to see how much this extra tuition can help students at different levels.

The second questionnaire, which gained deeper insight into the thoughts and perceptions of the participants, generated some interesting results. The class was pretty much evenly divided as to whether they liked to learn vocabulary or not, and for those who said that they found it difficult, the majority confessed to having trouble remembering the new words. Another interesting piece of information gathered was that the participants who found learning vocabulary interesting also said that repetitively writing the word was the best way to learn. While there are few studies comparing learning vocabulary by rote against other methods, the motivation of the participants is an important aspect to take into consideration; students who believe that this method is effective would be more likely to succeed using it, while those that do not believe it do less well as this method is not attractive to them and Dörnyei states that these methods may actually create a barrier to learning for some students (76).

The characteristics of the participants were also tested against the performance on the pre-test, and the results clearly showed that those who liked learning vocabulary did significantly better in three sections of the test – listening, reading and speaking – and did significantly better overall. L2 learners who have better vocabulary knowledge generally do much better in all areas of English; reading proficiency has been linked directly to vocabulary knowledge (e.g. Vadasy and Nelson, 147) as has listening (e.g. Segalowitz, Laufer, and Hulstijn. qtd. in Rost 168), writing and speaking (Vadasy and Nelson, 154). While the vocabulary result itself was not significantly greater to those participants who liked learning vocabulary, this result shows that the students who like learning vocabulary are generally more capable in English than those who don't.

When these preferences were separated into the explicit reasons for liking learning vocabulary or not, the results become significant over more areas (although in general less strong), but a clear tendency is that those who find learning vocabulary interesting do much better than those who say they like learning vocabulary for 'other reasons'; in fact, those who like learning vocabulary for 'other reasons' do little better than those who say they do not like learning vocabulary. There is a clear relationship between finding a task interesting and doing well at it and as Harmer has said, this motivation can be

the main reason for doing well or not (qtd. in Posteguillo, Fortanet and Palmer 113).

A distinction is also notable between those who do not like learning vocabulary; those who find it boring, generally do better than those who say they find it difficult. This suggests that there is a difference between being disinterested – not enjoying the usual methods – and finding these methods difficult to achieve. This is the reason for trying new methods – these students are either not motivated or are suffering while trying to learn. These are the students who need to find learning the L2 language fun and agreeable in order to facilitate the learning process (Dörnyei 77) and as Posteguillo, Fortanet and Palmer state teaching methods need to satisfy students' needs and interests to keep classes and learning interesting (115). This is the same trend as found with students who found vocabulary learning easy. This is not surprising as again those who find vocabulary acquisition less difficult would be more able to succeed in the four language areas (Macaro, 63; Vadasy and Nelson, 147,154)

There are many ways of learning, each of which has pros and cons. Motivation is known to be a key element and a student's active role in their own learning is imperative; Dörnyei states that learning situations where learners are active participants should be created (77). However, it appears that for some of the participants the methods that are considered boring and old fashioned may actually work best for some of them. Those participants who believed that repetitively writing a new word helped them learn did much better on the pre-test than those who didn't.

The treatment, through the post-test, showed that TPR is effective in helping students learn not only vocabulary, but improve across the board in all aspects of the English language. The significant improvement overall – from an average of 13.47 to an average of 34.17 – a shift of almost 21 points showed that the treatment allowed all the participants to effectively learn vocabulary and also gave them the confidence to do much better in the areas of English which are normally the hardest, speaking and writing. This improvement could have been due to several factors.

One of these factors could have been due to the attention paid to providing a method which breaks the monotony of the traditional classroom atmosphere as suggested by Dörnyei (77) as well as addressing students' needs by providing a method of introducing and learning vocabulary in a dynamic and fun way; the results show that the vocabulary was retained and possibly entered their long-term memory as suggested by Sousa (qtd. in Gregory and Kuzmich 103)

Another possible factor influencing the participants' performance on the post-test was the fact that the class was a remedial one. This meant that the level of the students was fairly similar, and tasks were set for their level. While it was noted that even this group, already classed as remedial by their institution, demonstrated the factors within the group that could lead to different levels; previous exposure, motivation, and learning capacities (Bruton, qtd. in Posteguillo, Fortanet and Palmer, 112). These differences were not so high and it was possible to interest all the participants to actively participate and develop the classes as suggested by Dörnyei and Csizér (161). The class developed in such a way that the participants did not worry about making mistakes, and there was solidarity when one was made. This atmosphere is conducive to learning and motivating students to learn (Garner, qtd. in Posteguillo, Fortanet and Palmer, 113), and this new vocabulary knowledge directly influences, for example, their written and spoken performance as they can achieve a reasonable level of comprehension (Vadasy and Nelson, 154).

Not only did the group improve greatly in all areas of the test, but the differences between the group were lessened – there was a range of 15 points in the pre-test, and a range of only 8.5 points in the post-test. This could mean that the treatment was not equally effective for the whole group. Studying the results shows that the students who scored lower initially improved more than those who did relatively well on the pre-test. This could be an artifact of participants who had a lower level being less confident, or more anxious, during the pre-test, which could have been lessened by the methodology and thus performing much better in the post-test (Ortega 201)

In the post treatment interviews, all the participants had positive things to say about their experience. All the participants said that the classes were enjoyable, and all said that they liked them and had learned new words or helped them remember words. This aspect is probably the second most important aspect of the study – no participant disliked the methodology. And for those that said they had found learning vocabulary difficult they were able to improve their scores more than those who said it was easy. The most important aspect is that the methodology of using TPR has been effective with this group to greatly enhance their level of English.

4.2 CONCLUSIONS

TPR is effective for vocabulary learning and retention for remedial students aged 15-16 years old. The participants all improved with this method of learning which is both fun and didactic.

TPR greatly enhanced vocabulary learning of the remedial students, suggesting that this method could be an important tool to help students who have trouble performing in the traditional classroom. This study would suggest that rote memory learning of vocabulary is not as effective for these students as a more natural method is: Learning by doing the action, as one did as a small child, seems to be effective for vocabulary learning.

The effect of TPR does not stop at vocabulary; the participants were able to use the vocabulary and the deeper learning or understanding of the vocabulary led to large improvements in listening, reading speaking and writing. This suggests and supports Octaviany's statement that vocabulary learning through TPR can positively affect all areas of English (11). This study has demonstrated that TPR not only helps learn vocabulary as a word and concept, but also allows remedial students to transfer this knowledge to other areas of the language such as listening, reading, writing and speaking. This method worked exceptionally well for this remedial group, and it could be an effective method for all students.

4.3 RECOMMENDATIONS

TPR should be considered as a standard method for teaching remedial students as it has been shown in this study to be a very effective way to learn a second language. However, more research should be done to see how far TPR can be taken with respect to learning a second language – it is effective for the concrete concepts of early language learning but its effectiveness for abstract concepts is less known.

This study was carried out without a control group. This means that different methods of teaching could not be compared; to truly understand the value of TPR to remedial students a comparative study with more traditional methods should be carried out.

Another aspect of this study that could not be controlled is the classroom environment – this was as relaxed and informal as possible. This safe environment could have been an important factor in the participants' improvement as it is supposed to be very conducive to learning (Dörnyei 41). This could have played a significant role in the learning process and should also be investigated alongside TPR to assure whether or not the TPR method was the most important factor.

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APPENDICES

APPENDIX 1

Cuestionario: Características del grupo

Este cuestionario es anónimo y tiene el objeto de proporcionar información demográfica sobre el grupo de estudio. Responda a las siguientes preguntas de la manera más franca posible.

Por favor marcar con una X en la respuesta de su preferencia.

1. **¿Cuántos años tiene?**

☐ 13 ☐ 14 ☐ 15 ☐ 16

2. **¿Qué nivel de Inglés usted considera que tiene?**

☐ Principiante ☐ Básico ☐ Intermedio ☐ Avanzado

3. **¿Usa el idioma Inglés con su familia o amigos?**

☐ Siempre ☐ A veces ☐ Rara vez ☐ Nunca

4. **¿Recibe clases de inglés fuera de su institución Educativa?**

☐ Si ☐ No

5. **Si su respuesta es positiva. Podría establecer el número de horas que recibe a la semana.**

_____

Gracias por su tiempo y cooperación!

APPENDIX 2

Pilot Questionnaire.

Cuestionario: La mejor manera de aprender vocabulario.

Este cuestionario es anónimo y tiene el objeto de descubrir como usted prefiere aprender vocabulario. Responda a las siguientes preguntas de la manera más franca posible.

Por favor encierre en un círculo ◯ la respuesta de su preferencia

1. **¿Te gusta aprender vocabulario?**

   Si No

2. **¿Por qué?**_____

3. **¿Consideras que aprender vocabulario es:**

   Fácil Medianamente fácil Difícil

4. **¿Qué consideras difícil cuando aprendes vocabulario?**

   _____

5. **¿Cómo aprendes nuevas palabras de mejor manera?**

   _____

6. **¿Consideras que la mejor forma de aprender vocabulario es repetir cada palabra tantas veces como puedas por escrito?**

   Si No

7. **¿Por qué?**

   _____

Gracias por su tiempo y cooperación!

APPENDIX 3

Cuestionario: La mejor manera de aprender vocabulario.

Este cuestionario es anónimo y tiene el objeto de descubrir como usted prefiere aprender vocabulario. Responda a las siguientes preguntas de la manera más franca posible.

Por favor marcar con una X en la respuesta de su preferencia.

1. **¿Te gusta aprender vocabulario?**

☐ Si ☐ No

2. **¿Por qué?**_____

3. **¿Consideras que aprender vocabulario es:**

☐ Fácil ☐ Medianamente fácil ☐ Difícil

4. **¿Si tu respuesta es difícil, qué es lo que consideras difícil cuando aprendes vocabulario?**

_____

5. **¿Cómo aprendes nuevas palabras de mejor manera? (Elegir una sola opción)**

☐ Imágenes ☐ Movimientos Físicos ☐ Videos ☐ Canciones

6. **Consideras que la mejor forma de aprender vocabulario es repetir cada palabra tantas veces como puedas por escrito?**

☐ Si ☐ No

7. **Por qué?**

Gracias por su tiempo!

APPENDIX 4
PRE-TEST

This PRETEST will not affect your grades and serves the purpose of discovering your vocabulary knowledge and your ability to perform the four skills: listening, reading, writing and speaking. **NAME:** _____**DATE:**_____

1…..VOCABULARY.

Listen and look at the teacher, then mark right or wrong.

Command #	Right	Wrong
play the guitar		
wash the dishes		
clean the table		
close the book		
drive a car		
listen to music		
swim in the pool		
drink water		
draw a picture		
read a book		

2….. LISTENING

Listen to Tom taking to a friend about a sports afternoon. What sport did each person do?

For questions 1 to 5, write a letter (A-H) next to each person. You will hear the conversa

People		
1	Sam	☐
2	Jane	☐
3	Paul	☐
4	Susan	☐
5	Anne	☐

Sports	
A	basketball
B	football
C	golf
D	horse-riding
E	skiing
F	table-tennis
G	tennis
H	volleyball

3……READING

Match the notice (A-H) with the correct sentence (1-5).

A

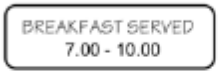
B

C

D

E

F



G

H

1..You should not swim here.

2..You must not drive fast here.

3..You can play football after lessons.

4..It is cheaper to buy things today than tomorrow.

5..You can drive here next week.

4.....WRITING:

Write five sentences about your daily routine.

1_____

2_____

3_____

4_____

5_____

5…..SPEAKING:

1. What's your name?
2. How old are you?
3. Where do you live?
4. What subjects do you like best at school?
5. What are your hobbies?

Speaking Rubric

Teacher: Gabriela Tobar

Clarity	Pronunciation	Comprehension	Fluency	Content	**Total**

Poor:	0	Good:	1.5
Fair:	1	Excellent:	2

Sentence Writing Rubric

Teacher: Gabriela Tobar

Capitalization	Punctuation	Grammar	Sentence Structure	Neatness	**Total**

Poor:	0	Good:	1.5
Fair:	1	Excellent:	2

APPENDIX 5

POST-TEST

This POST-TEST will not affect your grades and serves the purpose of discovering your vocabulary knowledge and your ability to perform the four skills: listening, reading, writing and speaking.

NAME: _____**DATE:**_____

1…..VOCABULARY .

Listen and look at the teacher, then mark right or wrong.

Command #	Right	Wrong
read a book		
draw a picture		
drive a car		
close the book		
wash the dishes		
listen to music		
swim in the pool		
drink water		
clean the table		
play the guitar		

2…..LISTENING

Listen to Tom taking to a friend about a sports afternoon. What sport did each person do?

For questions 1 to 5, write a letter (A-H) next to each person. You will hear the conversation twice.

People		
1	Sam	☐
2	Jane	☐
3	Paul	☐
4	Susan	☐
5	Anne	☐

Sports	
A	basketball
B	horse-riding
C	tennis
D	skiing
E	table-tennis
F	volleyball
G	golf
H	football

3…..READING

Match the notice (A-H) with the correct sentence (1-5).

A

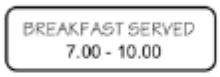
B

C

D

E

F



G

H

1..It is cheaper to buy things today than tomorrow.

2..You must not drive fast here.

3..You can play football after lessons.

4..You can drive here next week.

5..You should not swim here.

4…..WRITING:

Write five sentences about your daily routine.

1_____

2_____

3_____

4_____

5_____

5…..SPEAKING:

1…What's your name?

2…Where do you live?

3…How old are you?

4…What are your hobbies?

5…What subjects do you like best at school?

Speaking Rubric

Teacher: Gabriela Tobar

Clarity	Pronunciation	Comprehension	Fluency	Content	**Total**

Poor:	0	Good:	1.5
Fair:	1	Excellent:	2

Sentence Writing Rubric

Teacher: Gabriela Tobar

Capitalization	Punctuation	Grammar	Sentence Structure	Neatness	**Total**

Poor:	0	Good:	1.5
Fair:	1	Excellent:	2

APPENDIX 6

Teacher's Chart.

1. VOCABULARY

Section 2

Command #	Right	Wrong
1. break		
2. dance		
3. get up		
4. eat		
5. fish		
6. fly		
7. shout		
8. sing		
9. walk		
10. mix		

APPENDIX 7

LIST OF WORDS AND COMMANDS			
VERBS	CONTEXT 1	CONTEXT 2	CONTEXT 3
Break	your heart		
Brush	your teeth	your hair	
Clean	the table	your room	
climb	a mountain	the wall	
Close	your notebook	the door	
Cut	the paper	your hair	
Dance	at a party	salsa	
Draw	a picture	a circle	
Drink	water	juice	
Drive	your car	a bus	
Eat	chicken	fish	
Fish	in a lake	in a river	
Fly	a plane	a helicopter	
Give	a present		
Listen	to music	to the radio	
Mix	the ingredients		
Play	the guitar	soccer	
Read	a book	a magazine	
run	fast	slowly	
Shout	loud		
sing	a song	loud	
sit down	fast	slowly	
Sleep			
Speak	loud	slowly	
Swim	fast	slowly	in the pool
Take	a shower	your pencil	take out your book
Walk	fast	slowly	
Wash	your clothes	the dishes	your face
Watch	TV	movies	
Write	in your notebook	in the board	

APPENDIX 8

SENTENCE WRITING RUBRIC

Sentence Writing Rubric				
	Poor **0 pts**	**Fair** **1 pts**	**Good** **1.5 pts**	**Excellent** **2 pts**
Capitalization	Poor	Fair	Good	Excellent
	Does not consistently remember to capitalize the first word of the sentence.	Consistently remembers to capitalize the first word of the sentence.	Consistently remembers to capitalize the first word of a sentence and inconsistently remembers to capitalize other words within the sentence when needed.	Consistently remembers to capitalize the first word and any other words necessary within the sentence.
punctuation	Poor	Fair	Good	Excellent
	Does not consistently put ending punctuation.	Consistently puts ending punctuation in writing.	Adds necessary punctuation within the sentence structure.	Is able to use colons, semicolons and quotation marks appropriately.
sentence structure	Poor	Fair	Good	Excellent
	Writing sample is a fragment or run/on sentence. Does not use sentence starter.	Writing is a complete simple sentence. Uses sentence starter most of the time.	Writing involves compound sentences. Uses the sentence starter consistenly.	Writing samples shows complex sentence structure. Uses sentence start consistenly with correct words filled in the blanks.
Neatness	Poor	Fair	Good	Excellent
	Improper spacing between all words in the sentence or letters in each word make for very difficult reading.	Improper spacing between many words in the sentence and/or letters in the words make for difficult reading.	Few spacing errors either between words or within words make for somewhat difficult reading.	Good spacing is evident throughout the writing sample.
grammar	Poor	Fair	Good	Excellent
	Missing a subject or verb.	Sentence has both a subject and verb with 2 or more errors.	Sentence has subject and verb agreement with 1 error.	Words used in the sentence are correct all the time.

APPENDIX 9

SPEAKING RUBRIC

Speaking Rubric				
	Poor **0 pts**	**Fair** **1 pts**	**Good** **1.5 pts**	**Excellent** **2 pts**
Clarity	Poor All questions and answers were awkward and incomprehensible.	Fair Questions and answers were awkward and incomprehensible to understand at times.	Good Questions or answers were awkward at times but always understandable.	Excellent Questions and answers were clear and comprehensible.
Pronunciation	Poor Student's pronunciation was incomprehensible.	Fair Student's pronunciation made understanding difficult.	Good Student's pronunciation was understandable with some error.	Excellent Student's pronunciation was like a native speaker.
Fluency	Poor Student was unable to ask or respond to questions.	Fair Student took a long time to ask and respond to questions.	Good Students were able to ask and answer the questions with little difficulty.	Excellent Students were able to communicate clearly with no difficulty.
Comprehension	Poor Student was unable to comprehend questions. Questions had to be repeated.	Fair The student showed little comprehension of questions. Questions had to be repeated.	Good The student understood most of what was asked of him/her.	Excellent The student fully understood the questions asked and answered correctly.
Content	Poor Did not ask appropriate question for information, no response to question.	Fair Ask some inappropriate questions for information or answered question with very limited answers.	Good Gave appropriate questions for survey information but responses were limited in content.	Excellent Gave appropriate questions and good content in responses to questions.

APPENDIX 10

The effect of Total Physical Response on improving vocabulary acquisition when applied in teenagers' Remedial Classes at "Luisa Cordero High School".

Entrevista.

1. **¿Qué piensas de las clases que recibiste?**

_____

2. **¿Te gustaron?**

☐ Si ☐ No

3. **¿Por qué?**

---

4. **¿Piensas que te sirvieron para aprender vocabulario?**

☐ Si No

5. **¿Por qué?**

_____

6. **¿Considera que el aprender vocabulario le ayudo a mejor su nivel de Inglés?**

☐ Si ☐ No

7. **Si la respuesta fue positiva. ¿ Considera que el aprender vocabulario le ayudo a…… mejor en Inglés?**

☐ Escribir ☐ escuchar ☐ hablar ☐ leer

☐ Todas Otra_____

APPENDIX 11

ANOVA's results of Pre-test results against Characteristics of Questionnaires

Legend for Characteristics from Questionnaires

CODE	QUESTION
like_learn_v	Do you like to learn vocabulary?
Why_v	Why [do you like to learn vocabulary or not]?
Learn_v_is	Do you consider learning vocabulary to be…
Why_difficult	If you answered difficult, what do you find difficult?
Best_learn_v	What is the best way you learn new words?
write_it	Do you think the best way to learn is to write it out?
Why_write	Why [do you think it is the best way or not]?
Age	How old are you?
Level	What level of English do you think you have?
Use	Do you use English with friends and family?
Receive	Do you receive English classes outside of school?
hours_rec	If yes, how many hours do you receive?

Legend for Sections of the Test

CODE	SECTION OF THE TEST
VOCAB1	First vocabulary section
VOCAB2	Second vocabulary section
VOCABT	Averaged score of both vocabulary sections
LIST	Listening section
READ	Reading section
WRITE	Writing section
SPEAK	Speaking section
TOTAL	Total score of test (averaged vocabulary section only)

```
Y=cbind(VOCAB1,VOCAB2,VOCABT,LIST,READ,WRITE,SPEAK,TOTAL)
#Y=cbind(VOCAB1,VOCAB2,VOCABT)
#Y=cbind(DIFT1,DIFT2,DIFT3)
```

```
fit.like.learn=manova(Y~like_learn_v)
summary.aov(fit.like.learn)
```

```
##  Response VOCAB1 :
##              Df Sum Sq Mean Sq F value Pr(>F)
## like_learn_v  1   4.01    4.01    3.32  0.092 .
## Residuals    13  15.72    1.21
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##  Response VOCAB2 :
##              Df Sum Sq Mean Sq F value Pr(>F)
## like_learn_v  1    2.5   2.500       3   0.11
## Residuals    13   10.8   0.833
##
##  Response VOCABT :
##              Df Sum Sq Mean Sq F value Pr(>F)
## like_learn_v  1   3.21    3.21    3.51  0.084 .
## Residuals    13  11.89    0.91
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##  Response LIST :
##              Df Sum Sq Mean Sq F value  Pr(>F)
## like_learn_v  1  11.38   11.38    41.6 2.2e-05 ***
## Residuals    13   3.56    0.27
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##  Response READ :
##              Df Sum Sq Mean Sq F value Pr(>F)
## like_learn_v  1   4.44    4.44       5  0.044 *
## Residuals    13  11.56    0.89
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##  Response WRITE :
##              Df Sum Sq Mean Sq F value Pr(>F)
## like_learn_v  1   4.01    4.01     3.8  0.073 .
## Residuals    13  13.72    1.06
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##  Response SPEAK :
##              Df Sum Sq Mean Sq F value Pr(>F)
## like_learn_v  1    3.6    3.60    4.68   0.05 *
## Residuals    13   10.0    0.77
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##  Response TOTAL :
##              Df Sum Sq Mean Sq F value Pr(>F)
## like_learn_v  1    125   124.8    12.1 0.0041 **
```

```
## Residuals    13    134    10.3
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
fit.Why.v=manova(Y~Why_v)
summary.aov(fit.Why.v)
```

```
##  Response VOCAB1 :
##             Df Sum Sq Mean Sq F value Pr(>F)
## Why_v        3  11.55    3.85    5.18  0.018 *
## Residuals   11   8.18    0.74
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##  Response VOCAB2 :
##             Df Sum Sq Mean Sq F value Pr(>F)
## Why_v        3   7.83    2.61    5.22  0.017 *
## Residuals   11   5.50    0.50
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##  Response VOCABT :
##             Df Sum Sq Mean Sq F value Pr(>F)
## Why_v        3   9.43   3.143     6.1  0.011 *
## Residuals   11   5.67   0.515
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##  Response LIST :
##             Df Sum Sq Mean Sq F value  Pr(>F)
## Why_v        3  11.50    3.83    12.3 0.00077 ***
## Residuals   11   3.43    0.31
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##  Response READ :
##             Df Sum Sq Mean Sq F value Pr(>F)
## Why_v        3   6.57   2.190    2.56   0.11
## Residuals   11   9.43   0.857
##
##  Response WRITE :
##             Df Sum Sq Mean Sq F value Pr(>F)
## Why_v        3   5.38    1.79     1.6   0.25
## Residuals   11  12.36    1.12
##
##  Response SPEAK :
##             Df Sum Sq Mean Sq F value Pr(>F)
## Why_v        3   6.92   2.307     3.8  0.043 *
## Residuals   11   6.68   0.607
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##  Response TOTAL :
##             Df Sum Sq Mean Sq F value Pr(>F)
```

```
## Why_v         3    157    52.3    5.62  0.014 *
## Residuals    11    102     9.3
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
fit.learn.is=manova(Y~Learn_v_is)
summary.aov(fit.learn.is)
```

```
##  Response VOCAB1 :
##             Df Sum Sq Mean Sq F value Pr(>F)
## Learn_v_is   2   9.47    4.74    5.54   0.02 *
## Residuals   12  10.26    0.86
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##  Response VOCAB2 :
##             Df Sum Sq Mean Sq F value Pr(>F)
## Learn_v_is   2   4.83   2.417    3.41  0.067 .
## Residuals   12   8.50   0.708
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##  Response VOCABT :
##             Df Sum Sq Mean Sq F value Pr(>F)
## Learn_v_is   2   6.91    3.45    5.06  0.025 *
## Residuals   12   8.19    0.68
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##  Response LIST :
##             Df Sum Sq Mean Sq F value Pr(>F)
## Learn_v_is   2   6.17    3.09    4.23  0.041 *
## Residuals   12   8.76    0.73
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##  Response READ :
##             Df Sum Sq Mean Sq F value Pr(>F)
## Learn_v_is   2   1.24   0.619     0.5   0.62
## Residuals   12  14.76   1.230
##
##  Response WRITE :
##             Df Sum Sq Mean Sq F value Pr(>F)
## Learn_v_is   2   2.38    1.19    0.93   0.42
## Residuals   12  15.36    1.28
##
##  Response SPEAK :
##             Df Sum Sq Mean Sq F value Pr(>F)
## Learn_v_is   2   6.84    3.42    6.07  0.015 *
## Residuals   12   6.76    0.56
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##  Response TOTAL :
```

```
##             Df Sum Sq Mean Sq F value Pr(>F)
## Learn_v_is   2   89.2    44.6    3.15   0.08 .
## Residuals   12  170.0    14.2
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
fit.difficult.y=manova(Y~Why_difficult)
summary.aov(fit.difficult.y)
```

```
##  Response VOCAB1 :
##               Df Sum Sq Mean Sq F value Pr(>F)
## Why_difficult  1   1.93    1.93    6.43  0.052 .
## Residuals      5   1.50    0.30
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##  Response VOCAB2 :
##               Df Sum Sq Mean Sq F value Pr(>F)
## Why_difficult  1      0     0.0       0      1
## Residuals      5      2     0.4
##
##  Response VOCABT :
##               Df Sum Sq Mean Sq F value Pr(>F)
## Why_difficult  1  0.482   0.482    1.75   0.24
## Residuals      5  1.375   0.275
##
##  Response LIST :
##               Df Sum Sq Mean Sq F value Pr(>F)
## Why_difficult  1   0.10   0.095    0.14   0.72
## Residuals      5   3.33   0.667
##
##  Response READ :
##               Df Sum Sq Mean Sq F value Pr(>F)
## Why_difficult  1   0.10   0.095    0.14   0.72
## Residuals      5   3.33   0.667
##
##  Response WRITE :
##               Df Sum Sq Mean Sq F value Pr(>F)
## Why_difficult  1   1.52    1.52    1.43   0.29
## Residuals      5   5.33    1.07
##
##  Response SPEAK :
##               Df Sum Sq Mean Sq F value Pr(>F)
## Why_difficult  1  0.595   0.595    1.05   0.35
## Residuals      5  2.833   0.567
##
##  Response TOTAL :
##               Df Sum Sq Mean Sq F value Pr(>F)
## Why_difficult  1    7.3    7.29    0.73   0.43
## Residuals      5   49.7    9.94
##
## 8 observations deleted due to missingness
```

```
fit.new.voc=manova(Y~Best_learn_v)
summary.aov (fit.new.voc)
```

```
##  Response VOCAB1 :
##              Df Sum Sq Mean Sq F value Pr(>F)
## Best_learn_v  3    1.1   0.367    0.22   0.88
## Residuals    11   18.6   1.694
##
##  Response VOCAB2 :
##              Df Sum Sq Mean Sq F value Pr(>F)
## Best_learn_v  3    2.3   0.767    0.76   0.54
## Residuals    11   11.0   1.003
##
##  Response VOCABT :
##              Df Sum Sq Mean Sq F value Pr(>F)
## Best_learn_v  3   1.57   0.522    0.42   0.74
## Residuals    11  13.53   1.230
##
##  Response LIST :
##              Df Sum Sq Mean Sq F value Pr(>F)
## Best_learn_v  3    2.8   0.933    0.85    0.5
## Residuals    11   12.1   1.103
##
##  Response READ :
##              Df Sum Sq Mean Sq F value Pr(>F)
## Best_learn_v  3   2.67   0.889    0.73   0.55
## Residuals    11  13.33   1.212
##
##  Response WRITE :
##              Df Sum Sq Mean Sq F value Pr(>F)
## Best_learn_v  3   2.73   0.911    0.67   0.59
## Residuals    11  15.00   1.364
##
##  Response SPEAK :
##              Df Sum Sq Mean Sq F value Pr(>F)
## Best_learn_v  3   2.97   0.989    1.02   0.42
## Residuals    11  10.63   0.967
##
##  Response TOTAL :
##              Df Sum Sq Mean Sq F value Pr(>F)
## Best_learn_v  3   41.7    13.9     0.7   0.57
## Residuals    11  217.5    19.8
```

```
fit.write=manova(Y~write_it)
summary.aov (fit.write)
```

```
## Response VOCAB1:
##              Df Sum Sq Mean Sq F value Pr (>F)
## write_it      1    6.4    6.40    6.24  0.027 *
## Residuals    13   13.3    1.03
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##  Response VOCAB2 :
##              Df Sum Sq Mean Sq F value Pr(>F)
## write_it      1   4.44    4.44     6.5  0.024 *
## Residuals    13   8.89    0.68
```

```
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##  Response VOCABT :
##             Df Sum Sq Mean Sq F value Pr(>F)
## write_it     1   5.38    5.38    7.19  0.019 *
## Residuals   13   9.72    0.75
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##  Response LIST :
##             Df Sum Sq Mean Sq F value Pr(>F)
## write_it     1    1.6    1.60    1.56   0.23
## Residuals   13   13.3    1.03
##
##  Response READ :
##             Df Sum Sq Mean Sq F value Pr(>F)
## write_it     1   4.44    4.44       5  0.044 *
## Residuals   13  11.56    0.89
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##  Response WRITE :
##             Df Sum Sq Mean Sq F value Pr(>F)
## write_it     1   4.01    4.01     3.8  0.073 .
## Residuals   13  13.72    1.06
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##  Response SPEAK :
##             Df Sum Sq Mean Sq F value Pr(>F)
## write_it     1    3.6    3.60    4.68   0.05 *
## Residuals   13   10.0    0.77
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##  Response TOTAL :
##             Df Sum Sq Mean Sq F value Pr(>F)
## write_it     1     92    92.0    7.15  0.019 *
## Residuals   13    167    12.9
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
fit.write.why=manova(Y~Why_write)
summary.aov(fit.write.why)
```

```
##  Response VOCAB1 :
##             Df Sum Sq Mean Sq F value Pr(>F)
## Why_write    2    0.3    0.15    0.16   0.86
## Residuals    6    5.7    0.95
##
##  Response VOCAB2 :
##             Df Sum Sq Mean Sq F value Pr(>F)
## Why_write    2   1.09   0.544    1.81   0.24
```

```
## Residuals    6   1.80   0.300
##
##  Response VOCABT :
##             Df Sum Sq Mean Sq F value Pr(>F)
## Why_write    2  0.464   0.232    0.48   0.64
## Residuals    6  2.925   0.487
##
##  Response LIST :
##             Df Sum Sq Mean Sq F value Pr(>F)
## Why_write    2    0.8     0.4    0.33   0.73
## Residuals    6    7.2     1.2
##
##  Response READ :
##             Df Sum Sq Mean Sq F value Pr(>F)
## Why_write    2   2.22   1.111    1.67   0.27
## Residuals    6   4.00   0.667
##
##  Response WRITE :
##             Df Sum Sq Mean Sq F value Pr(>F)
## Why_write    2   0.39   0.194    0.18   0.84
## Residuals    6   6.50   1.083
##
##  Response SPEAK :
##             Df Sum Sq Mean Sq F value Pr(>F)
## Why_write    2    2.7    1.35    2.45   0.17
## Residuals    6    3.3    0.55
##
##  Response TOTAL :
##             Df Sum Sq Mean Sq F value Pr(>F)
## Why_write    2    0.6     0.3    0.03   0.97
## Residuals    6   70.1    11.7
##
## 6 observations deleted due to missingness
```

```
fit.age=manova(Y~Age)
summary.aov(fit.age)
```

```
##  Response VOCAB1 :
##             Df Sum Sq Mean Sq F value Pr(>F)
## Age          1   0.93   0.926    0.64   0.44
## Residuals   13  18.81   1.447
##
##  Response VOCAB2 :
##             Df Sum Sq Mean Sq F value Pr(>F)
## Age          1   1.03   1.026    1.08   0.32
## Residuals   13  12.31   0.947
##
##  Response VOCABT :
##             Df Sum Sq Mean Sq F value Pr(>F)
## Age          1   0.97   0.975     0.9   0.36
## Residuals   13  14.13   1.087
##
##  Response LIST :
##             Df Sum Sq Mean Sq F value Pr(>F)
```

```
## Age          1   0.01    0.01    0.01   0.93
## Residuals   13  14.92    1.15
##
##  Response READ :
##             Df Sum Sq Mean Sq F value Pr(>F)
## Age          1   2.31    2.31    2.19   0.16
## Residuals   13  13.69    1.05
##
##  Response WRITE :
##             Df Sum Sq Mean Sq F value Pr(>F)
## Age          1   4.96    4.96    5.05  0.043 *
## Residuals   13  12.77    0.98
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##  Response SPEAK :
##             Df Sum Sq Mean Sq F value Pr(>F)
## Age          1   0.83   0.831    0.85   0.37
## Residuals   13  12.77   0.982
##
##  Response TOTAL :
##             Df Sum Sq Mean Sq F value Pr(>F)
## Age          1     33    33.0     1.9   0.19
## Residuals   13    226    17.4
```

```
fit.level=manova(Y~Level)
summary.aov(fit.level)
```

```
##  Response VOCAB1 :
##             Df Sum Sq Mean Sq F value Pr(>F)
## Level        2   4.47    2.24    1.76   0.21
## Residuals   12  15.26    1.27
##
##  Response VOCAB2 :
##             Df Sum Sq Mean Sq F value Pr(>F)
## Level        2   1.83   0.917    0.96   0.41
## Residuals   12  11.50   0.958
##
##  Response VOCABT :
##             Df Sum Sq Mean Sq F value Pr(>F)
## Level        2   2.91    1.46    1.43   0.28
## Residuals   12  12.19    1.02
##
##  Response LIST :
##             Df Sum Sq Mean Sq F value Pr(>F)
## Level        2   6.17    3.09    4.23  0.041 *
## Residuals   12   8.76    0.73
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##  Response READ :
##             Df Sum Sq Mean Sq F value Pr(>F)
## Level        2   1.24   0.619     0.5   0.62
## Residuals   12  14.76   1.230
```

```
##
##  Response WRITE :
##             Df Sum Sq Mean Sq F value Pr(>F)
## Level        2   2.04    1.02    0.78   0.48
## Residuals   12  15.69    1.31
##
##  Response SPEAK :
##             Df Sum Sq Mean Sq F value Pr(>F)
## Level        2   6.17   3.086    4.98  0.027 *
## Residuals   12   7.43   0.619
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##  Response TOTAL :
##             Df Sum Sq Mean Sq F value Pr(>F)
## Level        2   80.9    40.4    2.72   0.11
## Residuals   12  178.3    14.9
```

```
fit.use=manova(Y~use)
summary.aov(fit.use)
```

```
##  Response VOCAB1 :
##             Df Sum Sq Mean Sq F value Pr(>F)
## use          1   1.38    1.38    0.97   0.34
## Residuals   13  18.36    1.41
##
##  Response VOCAB2 :
##             Df Sum Sq Mean Sq F value Pr(>F)
## use          1   2.98   2.976    3.74  0.075 .
## Residuals   13  10.36   0.797
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##  Response VOCABT :
##             Df Sum Sq Mean Sq F value Pr(>F)
## use          1    2.1     2.1     2.1   0.17
## Residuals   13   13.0     1.0
##
##  Response LIST :
##             Df Sum Sq Mean Sq F value Pr(>F)
## use          1   1.22    1.22    1.16    0.3
## Residuals   13  13.71    1.05
##
##  Response READ :
##             Df Sum Sq Mean Sq F value Pr(>F)
## use          1      0    0.00       0      1
## Residuals   13     16    1.23
##
##  Response WRITE :
##             Df Sum Sq Mean Sq F value Pr(>F)
## use          1    2.3    2.31    1.94   0.19
## Residuals   13   15.4    1.19
##
##  Response SPEAK :
```

```
##             Df Sum Sq Mean Sq F value Pr(>F)
## use          1   2.74   2.743    3.28  0.093 .
## Residuals   13  10.86   0.835
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##  Response TOTAL :
##             Df Sum Sq Mean Sq F value Pr(>F)
## use          1   32.8    32.8    1.88   0.19
## Residuals   13  226.4    17.4
```

```
fit.receive=manova(Y~receive)
summary.aov(fit.receive)
```

```
##  Response VOCAB1 :
##             Df Sum Sq Mean Sq F value Pr(>F)
## receive      1   4.88    4.88    4.27  0.059 .
## Residuals   13  14.86    1.14
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##  Response VOCAB2 :
##             Df Sum Sq Mean Sq F value Pr(>F)
## receive      1   2.98   2.976    3.74  0.075 .
## Residuals   13  10.36   0.797
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##  Response VOCABT :
##             Df Sum Sq Mean Sq F value Pr(>F)
## receive      1   3.87    3.87    4.48  0.054 .
## Residuals   13  11.23    0.86
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##  Response LIST :
##             Df Sum Sq Mean Sq F value Pr(>F)
## receive      1   1.22    1.22    1.16    0.3
## Residuals   13  13.71    1.05
##
##  Response READ :
##             Df Sum Sq Mean Sq F value Pr(>F)
## receive      1   4.29    4.29    4.76  0.048 *
## Residuals   13  11.71    0.90
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##  Response WRITE :
##             Df Sum Sq Mean Sq F value Pr(>F)
## receive      1   6.52    6.52    7.56  0.017 *
## Residuals   13  11.21    0.86
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
```

```
##  Response SPEAK :
##             Df Sum Sq Mean Sq F value Pr(>F)
## receive      1   2.74   2.743    3.28  0.093 .
## Residuals   13  10.86   0.835
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##  Response TOTAL :
##             Df Sum Sq Mean Sq F value Pr(>F)
## receive      1   87.4    87.4    6.62  0.023 *
## Residuals   13  171.8    13.2
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
fit.hours=manova(Y~hours_rec)
summary.aov(fit.hours)
```

```
##  Response VOCAB1 :
##             Df Sum Sq Mean Sq F value Pr(>F)
## hours_rec    1   4.88    4.88    4.27  0.059 .
## Residuals   13  14.86    1.14
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##  Response VOCAB2 :
##             Df Sum Sq Mean Sq F value Pr(>F)
## hours_rec    1   2.98   2.976    3.74  0.075 .
## Residuals   13  10.36   0.797
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##  Response VOCABT :
##             Df Sum Sq Mean Sq F value Pr(>F)
## hours_rec    1   3.87    3.87    4.48  0.054 .
## Residuals   13  11.23    0.86
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##  Response LIST :
##             Df Sum Sq Mean Sq F value Pr(>F)
## hours_rec    1   1.22    1.22    1.16    0.3
## Residuals   13  13.71    1.05
##
##  Response READ :
##             Df Sum Sq Mean Sq F value Pr(>F)
## hours_rec    1   4.29    4.29    4.76  0.048 *
## Residuals   13  11.71    0.90
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##  Response WRITE :
##             Df Sum Sq Mean Sq F value Pr(>F)
## hours_rec    1   6.52    6.52    7.56  0.017 *
## Residuals   13  11.21    0.86
```

```
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##  Response SPEAK :
##             Df Sum Sq Mean Sq F value Pr(>F)
## hours_rec    1   2.74   2.743    3.28  0.093 .
## Residuals   13  10.86   0.835
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
##  Response TOTAL :
##             Df Sum Sq Mean Sq F value Pr(>F)
## hours_rec    1   87.4    87.4    6.62  0.023 *
## Residuals   13  171.8    13.2
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

APPENDIX 12

t-tests of Pre-test against Post-test

Legend for Sections of the Test

CODE	SECTION OF THE TEST
VOCAB1	First vocabulary section
VOCAB2	Second vocabulary section
VOCABT	Averaged score of both vocabulary sections
LIST	Listening section
READ	Reading section
WRITE	Writing section
SPEAK	Speaking section
TOTAL	Total score of test (averaged vocabulary section only)

```
list <- read.delim("~/Documents/Gabi/analysis_gabi/datos.txt")
attach (list)
TEST <- factor(TEST, levels= c("pre","post"), ordered =T,
                                        labels = c("PRE-TEST", "POST-
TEST"))
t.test (VOCAB1~TEST, paired=T)
```

```
##
##  Paired t-test
##
## data:  VOCAB1 by TEST
## t = -15.32, df = 14, p-value = 3.857e-10
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
##  -4.104 -3.096
## sample estimates:
## mean of the differences
##                    -3.6
```

```
t.test (VOCAB2~TEST, paired = T)
```

```
##
##  Paired t-test
##
## data:  VOCAB2 by TEST
## t = -11.62, df = 14, p-value = 1.414e-08
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
##  -3.554 -2.446
## sample estimates:
## mean of the differences
##                      -3
```

```
t.test (VOCABT~TEST, paired=T)
```

```
##
##  Paired t-test
##
## data:  VOCABT by TEST
## t = -17.01, df = 14, p-value = 9.507e-11
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
##  -3.716 -2.884
## sample estimates:
## mean of the differences
##                    -3.3
```

```
t.test (LIST~TEST, paired=T)
```

```
##
##  Paired t-test
##
## data:  LIST by TEST
## t = -13.67, df = 14, p-value = 1.732e-09
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
##  -6.016 -4.384
## sample estimates:
## mean of the differences
##                    -5.2
```

```
t.test (READ~TEST, paired=T)
```

```
##
##  Paired t-test
##
## data:  READ by TEST
## t = -14.93, df = 14, p-value = 5.421e-10
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
##  -5.642 -4.225
## sample estimates:
## mean of the differences
##                  -4.933
```

```
t.test (WRITE~TEST, paired=T)
```

```
##
##  Paired t-test
##
## data:  WRITE by TEST
## t = -17.28, df = 14, p-value = 7.698e-11
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
##  -4.721 -3.679
## sample estimates:
## mean of the differences
##                    -4.2
```

```
t.test (SPEAK~TEST, paired=T)
```

```
##
##  Paired t-test
##
## data:  SPEAK by TEST
## t = -10.21, df = 14, p-value = 7.189e-08
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
##  -3.711 -2.423
## sample estimates:
## mean of the differences
##                  -3.067
```

```
t.test (TOTAL~TEST, paired=T)
```

```
##
##  Paired t-test
##
## data:  TOTAL by TEST
## t = -26.42, df = 14, p-value = 2.399e-13
## alternative hypothesis: true difference in means is not equal to 0
## 95 percent confidence interval:
##  -22.38 -19.02
## sample estimates:
## mean of the differences
##                   -20.7
```