Developing high school students' reading comprehension and self-directed learning strategies through the use of digital learning objects.

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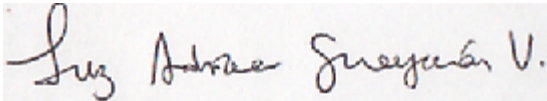
Declaration

We hereby declare that our research report entitled:

Developing high school students' reading comprehension and self-directed learning

strategies through the use of digital learning objects.

is the result of our own work and includes nothing which is the outcome of work done in collaboration except as declared and specified in the text; is neither substantially the same as nor contains substantial portions of any similar work submitted or that is being concurrently submitted for any degree or diploma or other qualification at the Universidad de La Sabana or any other university or similar institution except as declared and specified in the text; complies with the word limits and other requirements stipulated by the Research Subcommittee of the Department of Languages and Cultures; has been submitted by or on the required submission date.

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Abstract

This project is a research report, which inquired about the reading comprehension level of tenth and eleventh graders from a public high school. Before that, a needs analysis and a KET (Key English Test) as a diagnostic test were applied.

The objectives of this research were to assess how students recognize explicit information in a text to answer questions with the appropriate response through the use of digital learning objects in a blended environment; and to determine if the use of these DLO contributed to improve students' reading comprehension and the acquisition of new vocabulary. The project was applied in a public school in Bogotá to students of tenth and eleventh grade, due to the low reading comprehension found after applying them a KET test and a needs analysis. This action research used task based methodology in a blended learning environment where thirteen lessons were created based on digital learning objects in a MOODLE platform. These lessons helped students to improve their reading comprehension strategies and to increase their vocabulary. A mixed method analysis allowed researchers to determine that both objectives were effectively met while students enhanced their self-directed learning process.

Key words: Reading comprehension strategies, digital learning objects, blended learning

Resumen

Este proyecto es un informe de investigación que se preguntó por el nivel de comprensión de lectura de los estudiantes de décimo y undécimo grado de un colegio público de secundaria. Antes de eso se aplicaron un análisis de necesidades y un KET (Key English Test) como prueba de diagnóstico.

Los objetivos de esta investigación fueron evaluar cómo los estudiantes reconocen la información explícita en un texto para contestar preguntas con la respuesta adecuada a través del uso de objetos de aprendizaje digitales en un entorno combinado y determinar si el uso de estos DLO contribuyó a mejorar la comprensión lectora de los alumnos y la adquisición de nuevo vocabulario. El proyecto se aplicó en un colegio público de Bogotá a estudiantes de décimo y undécimo grado, debido a la baja comprensión lectora encontrada después de aplicarles una prueba KET y un análisis de necesidades. Esta investigación-acción utilizó metodología basada en tareas en un entorno de aprendizaje combinado donde se crearon trece lecciones basadas en objetos de aprendizaje digital en una plataforma MOODLE. Estas lecciones ayudaron a los estudiantes a mejorar sus estrategias de comprensión de lectura y aumentar el vocabulario. Un análisis de métodos mixtos permitió a los investigadores determinar que ambos objetivos se cumplieron efectivamente mientras que los estudiantes mejoraron su proceso de aprendizaje autodirigido.

Palabras clave: Estrategias de comprensión lectora, Objetos de aprendizaje digital, Aprendizaje semipresencial

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Chapter 1. Introduction

During the last decade, Colombian public schools have undergone a significant change in their targets. Bilingualism is one of the goals that has been sought as there are many aspects that cannot be completely accomplished trying to mirror foreign experiences (MEN, 2002). The Ministry of Education in Colombia has adopted standards from the Common European Framework of Reference for Languages (CEFR) to the ones expected in students' proficiency in language exams like "Prueba SABER". Alongside and following international trends, the Ministerio de Educación Nacional (MEN) has supplied schools with technological tools such as tablets and computers in order to support the teaching and learning processes.

Bearing in mind students are finishing their school studies, they are to take "Pruebas SABER" which in their English part evaluates the academic level of schools and language competences based on CEFR standards suggested by MEN. Afterwards students will go either to college or start working at any place, since English is the worldwide means of communication and a mandatory requirement for out of school life. This research was done with students from the last two grades of school and aimed to develop reading strategies for students to improve their ability to read and select the appropriate response and acquire lexical items.

1.1. Rationale of the Study

There seems to be compelling reasons to argue that teachers must create and adapt their class resources bearing in mind students' needs. Aspects such as methodology, content, classes, and syllabus must be adjusted to what instructors found in their contexts considering students' background. In so doing teachers moved towards students' specific purposes, needs, and goals. Hence, we wanted to focus on tenth and eleventh graders because they should take the "Pruebas Saber" (which evaluates the academic level of schools and language competences based on

CEFR standards suggested by MEN). In this research, digital learning objects (DLOs hereafter) were considered as tools to improve English learners' proficiency level. Likewise, these DLOs were an attempt to overcome students' difficulties when learning the target language especially in reading for appropriate responses and lexical items.

1.2. Statement of the Problem

As English teachers, we find different issues in student's learning process, that is the reason that motivated us to create new strategies which allow students to improve and to strengthen their communicative abilities. In this research, tenth and eleventh graders evidenced a lot of difficulties to learn English in all the communicative skills. English teachers noticed that students could not express simple needs completely, such as short phrases giving them time to think about what they wanted to say. They could not ask basic questions, using who, what, when, and where. We realized there were three aspects which students found problematic: first, the oral interaction in groups, as they felt it is unnatural to talk to their partners in a different language, since they normally do not do it in class. Second, appropriate use of vocabulary and basic structures, and third; listening to and understanding native speakers. Moreover, they faced difficulties in writing when organizing ideas in sentences and creating paragraphs. Based on the needs analysis and observation, the main challenge/concern was that students got problems with reading comprehension, thus had trouble understanding a simple text and the teacher speaking in English. And this problem was the most relevant difficulty because the students were to present the Pruebas Saber soon.

Facing those aspects and taking into account that school time was limited; students only had 2 face-to-face English class hours per week and these were interrupted sometimes due to different school activities. Thereby, considering students at Veintiún Ángeles school were to take

National Exams (Pruebas Saber), whose English part is designed based on the KET test, and bearing in mind reading comprehension is the most important part of such exam, students were asked to answer a KET mock test. The results of that test confirmed that their immediate need was to improve reading skills. Based on the previous information and our first findings, this research intended to analyze to what extent the use of digital learning objects in a blended learning environment helps tenth and eleventh graders to identify appropriate responses and appropriate lexical items in reading comprehension exercises.

1.3. Strategy Selected to address the problem

After analyzing students' needs and the KET results, it was decided to train students in some reading strategies that could help them to improve their reading comprehension to identify appropriate responses in reading comprehension exercises and increase vocabulary which was one of their weaknesses. Therefore, four reading strategies were selected: predicting, skimming, scanning and questioning. However, time was another difficulty; due to many school projects English classes were not always conducted. In order to overcome this challenge, a blended learning environment was designed in a Moodle platform that was the LMS (Learning Management System). This LMS supported this project through the creation of digital learning objects and some face-to-face classes that we could develop.

1.4. Research Question

To what extent does the use of digital learning objects in a blended learning environment help tenth and eleventh graders to identify appropriate responses in reading comprehension exercises?

1.4. Research Objectives

These were the general and specific objectives which guided our research design.

1.4.1. General objectives.

- To assess how students, recognize explicit information in a text to answer questions with the appropriate response through the use of digital learning objects in a blended environment.

- To determine if the use of digital learning objects contributed to the improvement of reading comprehension in terms of identifying suitable responses and putting vocabulary into practice.

1.4.2. Specific objectives.

- To determine how reading comprehension exercises in a blended environment help students improve their reading skills.

- To support students to increase vocabulary about daily life aspects in each reading text.

- To guide and assess students in their process to detect keywords in different texts by the end of the course.

- To provide students with strategies for dealing with comprehension of different texts in each lesson.

Given this contextual overview this research needed a supporting theoretical framework that accounts for the problems encountered in school when constriction of time and the needs for building up reading comprehension appears. The constructs that seemed to be the most outstanding for the aims stated are going to be discussed in the next chapter.

Chapter 2. Literature Review

2.1. Theoretical Framework

This chapter focuses on what reading is and how it works in students from public schools when they use appropriate reading comprehension strategies (predicting, scanning, skimming, questioning) and digital learning objects

2.1.1. Reading.

The main concern in this chapter is to provide a definition of "Reading" that matches the premise that it is a significant means of L2 development in students from public schools in Bogotá. Different authors have defined reading comprehension (RC) evoking compelling words to do that: deciphering written form (Hoover & Gough, 1990), extracting meaning from texts (Snow, 2002) and decoding printed words (Urquhart & Weir as cited in Grabe, 2009). Snow (2002) asserts that reading comprehension is the process of extracting and constructing meaning through interaction and written language.

Although some teachers may assume that reading needs no instruction at all (Denton & Fletcher, 2003) its complexity accounts for different aspects as the type of text, the reader features, what is to be obtained from it and in what context (RAND Reading Study Group, Bursuck & Damer as cited in Sencibaugh & Sencibaugh, 2015). Besides, it is important to consider aspects as the need of establishing clear goals to obtain the most from reading (Serravallo, 2014), like gaining vocabulary through reading practice (Nation, 2014).

Theorists nowadays accept that it is not a passive process but rather an active one (Sencibaugh & Sencibaugh, 2015; Day & Park,2005; Swaffar,1988). Reading involves interaction between the reader and the text to obtain meaning out of it. Procedures like

interpreting, deconstructing and reconstructing understanding are necessary. RC also relates to personal experience, previous and contextual knowledge. This process entails many different actions related one to another that are accomplished simultaneously, in top-down (general understanding) and bottom-up (specific features comprehension) processes (Carrell, P., Devine, J., & Eskey, 1988). Although some researchers have talked about the ability to be transferred from L1 to L2 (Roberts, 1994), studies demonstrate that due to different factors like schema, cultural background and others it needs specific support and instruction to be effectively achieved (Grabe as cited in Singhal,1998).

RC is the paramount feature of the process of reading as asserted by Durkin (1978) because it is important not only to gain academic success in different subjects, but as a part of lifelong learning (Dreyer & Nel, 2003). In such terms RC and its successful attainment are key in this research, as high school students from tenth and eleventh grades are to develop this ability for their near future, either in professional or working situations.

2.1.2. Reading comprehension strategies.

Since RC is a process and participants of this research needed to learn the necessary steps to be successful in it, procedures were to be known and managed. These steps were RC strategies. Singhal (1998) refers to reading strategies as the mental actions a reader does to build up meaning from the text. McNamara (2012) adds that these actions are also attitudes done in specific situations and contexts to improve particular aspects in understanding the text. Researchers have found that skilled readers make use of reading strategies almost automatically and people can be instructed in them to enhance RC processes (Singhal, 1998; Grabe, 2008).

Grabe (2008) recognizes reading strategies as higher order comprehension processes. As RC is a procedure of making and proving hypotheses (Pressley & Afflerbach, 2009);

investigators suggest that readers go through a recurrent process of extracting information from the text, making predictions, confirming or denying them and so forth (Goodman, 1988; Smith, 2004). Readers should not read bit by bit but instead use their background knowledge, and different strategies such as predicting and confirming to comprehend the text.

Some of the first strategies to account for is trying to identify the type of text, what it is about in general terms, and what its purpose is in an overview; this is called prediction (Revell & Sweeney, 1993). Predictions are made on previous knowledge and serve to establish hypotheses, and confirm and/or disconfirm them. Predicting as a pre- reading strategy means looking at the title, subtitle, pictures, graphs and use prior mastery of the topic and themes the text seems to present to prepare for tackling the idea it displays. While reading, prediction helps the reader to go ahead on what is being presented in the text. As a post reading strategy predicting makes the reader summarize the text and prove his understanding of it. Those who predict before, during, and after they read are dynamically committed in the meaning-making process (Moreillon, 2007). Predictions are valuable when identifying unknown vocabulary as they offer valuable contextual clues.

Parallel to making predictions and as part of the strategies to be used when readers encounter a text for the first time are scanning and skimming. Scanning has to do with finding specific information in the text by a quick look through the whole text (Revell & Sweeney, 1993). Textual information is the key for this strategy.

On the other hand, skimming is closely related to scanning but in this strategy the quick look relates to finding general important ideas; this implies to look quickly through the text to note the broad synopsis, disregarding specific elements in it (Clark, 2007). Skimming is used for multiple purposes: determine the general idea of a text, evaluating if a text will provide important

information for a given situation, if the text is difficult to be understood or not and what it is necessary to be wholly comprehended, among others (Grabe, 2009). Brown (1994) asserts that scanning and skimming are the two most important reading strategies.

As part of the hypothesizing process in reading texts, questioning appears as one of the most relevant strategies. Authors like Moreillon (2007) state that children are naturally endowed to ask questions when they enter school but that this ability diminishes and changes to answer teachers' questions. Most of the research highlights the importance of developing questioning as a strategy for enhancing RC (Durkin, 1979; Pressley, et al., 1998) and advocates for using it before, during, and after reading.

Questioning at the beginning of reading is useful, but asking questions while reading is a challenge for students that need to be addressed since it strengthened teaching and learning processes (Moreillon, 2007). When asking information questions students are appealed to elaborate their language, consequently they are actively developing higher-level thinking and their linguistic abilities (Christie, Enz, & Vukelich 2003 as cited in Moirellon). Moreover, questioning helps as a post reading strategy as long as the teacher instructs students to find answers inside the text and from the whole text organization (Grabe, 2014).

The previous reading strategies were selected to support students to have a meaningful experience between the text and their comprehension. The necessity of increasing and enhancing opportunities for school students to get and practice RC and its strategies made researchers look for a convenient methodology.

2.1.3. Blended Learning.

Sharma (2010) recognizes three definitions that will suit specific situations: the first, a combination of face-to-face and online instruction as stated by Oliver and Trigwell (2005, in Sharma 2010) is the most accepted definition. The online part is carried out through synchronous and asynchronous technologies and a Virtual Learning Environment. The second definition is the combination of technologies in virtual instruction, where media and the tutor make the link between learners and tutor. The third conception of blended learning (BL) is the combination of methodological approaches used, so it could have behaviorist methodology and a task-based one (Osguthorpe & Graham, 2003).

According to Heinze and Procter (2004), BL is facilitated through the efficient combination of different methods of delivery, teaching models and learning styles. Students can also take part in face-to-face lessons and communicate with the tutor and classmates using a suite of secure online tools. The idea is to boost learning opportunities with a redefinition of instruction (Downes, 2011). Four requirements are thought to be important for BL: it should be flexible, facilitate interaction, promote students' learning processes, and create an affective learning climate. Flexibility has to do with eliminating constrictions of time, and place. Easing interaction relates to minimize students distance among themselves and with their instructor so as to cope with misunderstandings as soon as possible to facilitate acquisition. Promoting students learning processes entails creating and/or improving learners' self-regulation abilities (Boelens et al., 2017).

Considering the specific needs students in Veintiún Angeles had, (e.g. few hours of English class, a low level of English proficiency, the necessity of understanding written texts) the features described above seemed to correspond to the most suitable solution given the

appropriate means this type of instruction offers. Therefore, a feasible support for increasing hours and strategic means for promoting students learning processes were necessary, DLOs and self-assessment are discussed below in depth.

2.1.4. Digital Learning Objects.

The interactive part of the blended learning instruction is carried out through digital learning objects (DLO). Theorists agree on some features that are common to them: used for educational purposes, technologically enhanced, reusable (McGreal, 2004; Polsani, 2003; Wiley, 2011). DLO are reusable when they are ready to be utilized in different instructional contexts over and over if appropriate.

The educational purpose has to do with learning, training, and/or assessment. To fulfill its aims, the DLO has to be structured, it must have an objective or objectives, a learning activity and an assessment component to demonstrate that objectives have been met (L'Allier in Polsani, 2003). Although few investigations have explored in this specific purpose, researchers suggest that DLOs comply with those features that are suitable for the context and participants they are made for (Gonzalez & Hernández, 2009), and that their instructional objective meets requirements of scope and sequence.

A DLO can be any entity that satisfies the characteristics mentioned above. As they are the minimal part of the educational process, they fulfill the hands-on component of the vision of language acquisition "learning by doing", which makes learners active participants (McGreal, 2004). Lysenko & Abrami (2014) asserted that investigations on the use of DLOs for RC has been restricted to literacy and few research has been found on RC skills promotion. Taking advantage of these DLOs resources and the virtual environment, self-assessments were designed in DLOs. It was necessary to implement these tools where students could develop a self-directed

learning strategy to monitor and reflect about what they were doing and how they were performing on the different tasks.

2.1.5. Self- assessment.

The process that accounts for students monitoring and evaluation of their work and learning is called self-assessment (McMillan, & Hearn, 2008). It is developed through different steps that evolve continually and include constructs like self-monitoring, and self-evaluation (Nicol & McFarlane, 2006). It implies that guidelines are to account for a desired state with some specific characteristics like being external measurements from a set body of knowledge shared by a group of individuals (LeBlanc & Painchaud, 1985). As such these measures guide students in their perception of: 1. what they are doing, 2. if they are improving and 3. what they are still to acquire (McMillan & Hearn, 2008). Self-assessment steps allow learners to find appropriate attitudes and skills to improve. Being a cyclical process, the final step relates with having students' own goals established.

Formative advantages of self-assessment are: it stimulates learning since students who self-assess their work become aware of their own acquisition and tend to improve in their goal orientation. Furthermore, self-assessment as a constant activity strengthens autonomy (Oscarson as cited in Butler & Lee, 2006). This project required from students a considerable amount of autonomy because they would work with means that were to be used and evaluated their progress by themselves. Self-assessment appeared as the best way to do it.

2.2. State of the Art

In this section we will consider some of the most recent studies on reading strategies as a means to improve RC and how this skill helps to build up self-directed learning by reinforcing different constructs like autonomy, and motivation among others.

In the last decade studies have demonstrated how important it is to explicitly teach and motivate students to use reading strategies to gain better RC. This has been done specifically accounting for regional realities which needed improvement in specific areas of reading instruction with a web based component. In Akkakoson's (2013) study, traditional methods were put at stake and it was determined that instruction of reading strategies was beneficial even for more proficient readers. Gersten et al (2001) showed that reading strategies helped students with learning disabilities to overcome their drawbacks in L2 reading comprehension. In these two studies the web based component served as means for developing students' metacognitive awareness and to evaluate the effectiveness of the instruction and reading strategies use. Other studies related to this issue make comparisons between the efficiency of the web instruction against the face-to-face one like in Ghonsooly (2014) and Lopera (2014). In the latter differences in RC performance were not evident, only in the types of communication that can be found. The former focused its attention on students' preferences of reading strategies regarding the mode of instruction, which demonstrates no relevant variations; however, its findings proved no improvement in reading test results for students receiving online instruction.

Other studies not only helped students to improve understanding of texts in specific contexts but assisted learners to develop self-directed learning strategies by having them be active creators of the interactive platforms where reading comprehension takes place. Levy, Dickersonn and Teague (2011), for example, explored the development of strategic reading and engaged students in their learning process by involving them in the construction of the e-tool. Similar works that have to do with the blended learning in relation to reading strategies instruction evaluate the appropriateness and effectiveness of the modes of implementation and its correlation with RC achievement. For example, in Yang's study (2011) a blended course allowed

learners to evaluate their reading processes by extensively read and use appropriate strategies outside the classroom to complement what they had done inside.

Studies in national context deepen our vision on these aspects, as in Arismendi et al (2011) in which both modalities of instruction are contrasted in terms of the reading and language strategies used in each. Findings manifest the importance of explicit instruction, although they also demonstrate that there are some strategies which had not been instructed on but still used by students.

Moreover, few studies have analyzed the relationship between reading strategies and reading comprehension performance in blended environments, just Yang's (2011) that use it as a reinforcement course or, in Colombia the research accomplished by Uribe-Enciso (2015) in which a Moodle course complemented and enhanced students' performance in RC while using reading strategies both in face to face and online instruction.

The research presented above was conducted with college students. Regarding school issues in 2013 two studies were outstanding both related to self-directed learning associated with RC strategies instruction and development: Montalvo (2013) conducted a quantitative study of the appropriateness of explicit RC strategies instruction by evaluating three types of test scores applied to eleventh and tenth grade students from a public institution in Sincelejo. Results and analysis of the different data collected demonstrated that both the use of technology and explicit teaching of RC strategies instruction were beneficial in the sense that they shed light on which problems students faced at applying different strategies. Explicit instruction made them aware of the type of activities that suit better their learning style, as well as what teacher hints assisted them for a better understanding. Montalvo's study was planned as a proposal to fulfill requirements in PRUEBAS SABER but its conclusions included that implementing reading

strategies can transform reading as an opportunity to go into a deeper knowledge of the world and other cultures. Something to go deeper after this research is to find out if students apply different learning strategies reviewed.

On the other hand, in Developing Reading Strategies to Foster Autonomy, Correa (2013) tried to determine how the application of reading strategies might influence the development of students' autonomy. This project was tested at a private-bilingual school in Bogotá, Colombia with a group of nineteen students between 15 and 16 years old, who belong to 9th grade. The researcher applied three different reading strategies in order to help students become autonomous learners, considering these strategies as a positive influence on students' academic processes. The study concluded that the learning and development of reading strategies generated high levels of motivation as students realized how, by using them, can be more autonomous.

The present research tries to fill a gap in national and international studies in implementation of a blended learning methodology to teach reading strategies to enhance text comprehension in EFL. Thus, this research complements Montalvo's work which was done with blogs and Uribe-Enciso (2015) who suggests that a study should be done with a different group of students.

Chapter 3. Research Design

From our standpoint, this research project was an action research as it is the most frequent method to improve and make a difference in teacher's pedagogical practice (Johnson, 2005). The research design is summarized in the following chart.

Table 1

Research Design Framework

Type of study	Action Research
Context	Veintiún Ángeles IED a public school located in Suba, Bogotá
Participants	74 students from tenth and eleventh grade with A2 proficiency English level.
Data collection instruments	Needs analysis questionnaire, Pre- reading test, Production Tasks (pre-reading tasks, vocabulary questionnaires, reading comprehension questionnaires), Self-assessment checklists, Post-reading test, End of the project survey, and Reading Strategies Inventory.

3.1. Type of Study

The present research study had a mixed method nature, results in this project intended to be descriptive as the features of the different variables are collected, outlined and measured to characterize to what extent the use of digital learning objects in a blended environment helps tenth and eleventh graders to identify appropriate responses in reading comprehension exercises. Based on the action research approach, it was a practitioner-research, where two researchers were involved in an AR (Action Research).

Ellis (2012) stated that a practitioner-research aims to make a direct connection between research and practice, focused on a group of learners. He confirmed Nunan, D & Bailey, K (2009) who indicated that the cyclical process in AR aims to improve teacher's practice, solve problems and satisfy curiosity.

Action research is a form of collective self-reflective enquiry undertaken by participants in social situations to improve the rationality and justice of their own social or educational practices, as well as their understanding of these practices and the situations in which these practices are carried out. Kemmis & McTaggart (1988, p.5)

It means that AR is considered as an educative path which implies teachers' reflection regarding thousands of opportunities provided in the scholar laboratory. Their view concedes a closer look at the cycle of data research proposed by Van Lier (1994, p.34) who indicated that, the action is to join theory and practice to find practical problems and improve that action. He also declared that, research must be broad and flexible with a methodological rigor, which must show a real collaborative social change. In conclusion, these authors' view let as the premise that we should see the AR cycle as a social change which take us to the constant improvement of education.

Bearing in mind Van Lier's (1994) proposal, this research opted to follow the outline of Kemmis & McTaggart (1988).

3.2. Stages of the Study

Kemmis & McTaggart (1988) proposed four steps which are justified in a spiral design evidencing, a planning, acting, observation, and reflection process.

3.2.1. Planning.

The first step was to think in a plan to improve a difficult situation that teachers and students were facing. In this step, a needs analysis questionnaire was administered to students to check which were their interests and their knowledge on using virtual platforms, computers, internet as media tool to be used in this research proposal. Once the results of the analysis were ready, students completed a pretest. The pretest was a KET sample test to check their proficiency level; this type of exam assessed proficiency for students of A2 level. As far as researchers observed most of the students were at this level and below, and few were in higher levels.

3.2.2. Acting.

In this step the researchers carried out the proposal. The idea was to provide a face-to-face and online instruction using a virtual tool, in this case DLO in Moodle which were used as our online platform.

3.2.3. Observation.

Every week students' performance was observed in the Moodle platform, to describe what happened in every situation or proposed activity that students should develop in implementing the different RC strategies. In addition, students' doubts were clarified in the face-to-face sessions that we could access.

3.2.4. Reflecting.

Students answered a survey based on their perceptions of the project and a reading strategies inventory designed by us to get data about their improvement and acquisition of the four reading strategies proposed in this research. In this step researchers analyzed data to consider the responses and identify possible issues which can be treated with a new research project.

3.3. Context

Veintiún Ángeles is a public school located in Suba Tuna Alta. It is one of the "Mega schools" from "Secretaría de Educación de Bogotá D.C". It offers different educational levels, such as: Pre-school, elementary, basic secondary and high school. Students belong to 0, 1, 2 and 3 economical statuses and 70% of students in a classroom come from different regions of Colombia. In eleventh grade, there were three groups and in tenth grade too. The one described here was a group of 74 high school students between 15 and 20-years-old.

3.4. Participants

The participants in this study were students from one group in tenth grade and students from another group in eleventh grade. Based on our observations, most of them were qualified to be in A2 level according to the CEFR. Each of the groups was composed by 37 students between 15 and 20 years old.

3.5. Researcher's Role

AR denotes the intervention to solve a problem allowing researchers to access data immediately to reflect, make continuous adjustments and undertake changes to the current research (Johnson, 2005). One of the most relevant features in here was to debate the role that two researchers had during this AR. By virtue of the different stages AR follows, the researchers did not have one single role, they took different roles while they were researching and implementing different ways of solving the problem identified.

These were the researcher's roles identified during the implementation of the strategy:

Leaders: with a strong team working sense to direct the project considering different ideas from the co-researchers and students to make appropriate changes.

Planners: with the ability to make decisions and structure all the lessons considering each step to develop DLO designed for improving students' reading comprehension.

Teachers and facilitators: to teach, orient, explain and get students involved on the five strategies worked on and how to develop each activity in each digital lesson provided.

Designers: probably this was the hardest role that researchers assumed in this process due to the lack of knowledge on many digital aspects that should be considered to get students attention. The appropriate tools of Moodle, the organization of DLOs, web 2.0 tools, colors, pictures, games, the different kind of texts and questionnaires that students should answer after reading each article were a total challenge for researchers to approach the purpose of this study. Researchers decided upon some sort of tools based on an artistic and motivational virtual environment to catch students' attention and create the final product.

Observers: this was the most important role to assume, researchers were observers and participants at the same time while implementing the strategy. It was totally necessary to observe what was going on, students' attitudes facing the new virtual environment in English language, their understanding of the reading strategies to apply them on the reading articles provided, their use of new web 2.0 tools, and their development and improvement on the RC process by checking the scores on each questionnaire. In addition, researchers were participants at the same time of observing; participating and commenting in the forums created for students to share their work or opinions on different topics related to the reading articles provided.

Reporters: this role was the one in charge of getting the other roles in a unique role due to the importance of its function. Researchers were the people who gathered data, searched and interpreted information, observed the individuals, conducted surveys, wrote and erased several

times to get the current information provided.

It seems reasonable to assume that the researchers' main role implied to nurture the field of RC strategies by providing more findings which could be taken into account as starting points to carry on new investigations on the topic.

3.6 Ethical considerations

To start this study there were some ethical considerations taken into account in order to follow the legal process. At the beginning of the project, an institutional approval was required to begin the research in the school Veintiún Ángeles, it was asked through a consent letter [Appendix A] approved by the principal of the school. Then, a parents' informed consent [Appendix B] was required to have their permission to do the research with their children. After that, students were given a consent letter [Appendix C] to get their permission to conduct this research and clarify their voluntary participation. All consents were taken under the assumption that observations, data gathered and findings were going to be kept confidential and anonymous.

3.7. Instruments and procedures

According to Nunan, D. & Bailey, K. (2009) elicitation refers to the ways the researchers try to gather data directly from informants, these instruments vary in terms of scope and purpose. A closer look at the problem stated for this research suggested the following elicitation instruments to collect data.

3.7.1 Needs analysis questionnaire.

A needs analysis questionnaire helped us to focus on an appropriate content and students BL practices in order to improve one of their English communicative skills, in this case, Reading. It was administered in L1 Spanish due to their low proficiency level in English class. Questions

were of two types: Likert scale and open-ended to round up ideas about the needs analysis. After applying the needs questionnaire [Appendix D], results showed that the most difficulties students hold were with vocabulary and RC, and what they wanted to improve was especially the use of new vocabulary to understand when reading and understanding structures to answer reading comprehension questions appropriately.

3.7.2 Pre-test (Pruebas SABER - KET).

Bearing the needs analysis in mind, a decision for applying them an English test based on KET structure - reading part [Appendix E] was made in order to know which exactly their difficulty in reading was. Students had the opportunity to answer the test until part 7 due to its nature assessing reading and vocabulary. The highest difficulty they showed was in part 3, answering with appropriate responses after reading a short article. Unconsciously, they evidenced their major difficulty found in the needs analysis questionnaire in the KET test results.

Having this in mind, an opportunity to adapt their curriculum to a short reading course for them to improve vocabulary knowledge and RC was presented. It was decided to implement eight (8) DLOs in Moodle platform.

3.7.3 Production Tasks

According to Nunan, D. and Bailey, K. (2009), these techniques are used to obtain samples of learner language in order to study processes and stages of development that learners face when they develop their second language proficiency. Eight DLO in Moodle platform were administered during eight (8) weeks, each week was composed by one unit with a different text to read and a specific reading strategy to be applied. Each unit consisted of three parts: Pre-reading, while- reading and Post- reading. Students were required to develop some activities applying the strategy proposed for each week and they also had to get a grade in the post reading

stage [Appendix F]. A self-assessment questionnaire was applied each week to know students' perception of the strategy worked and how well students' performance of tasks proposed in each unit was.

3.7.4 Post- test (Pruebas Saber KET).

After applying the strategy, students were administered a final test. They took the same KET test administered at the beginning of the process in order to know their progress and determine the validity of the instrument and the process.

Nunan, D. & Bailey, K. (2009), said that if we wanted to understand what people do, we should know what they think. Then, it was necessary to know researchers and students' insights in order to identify feelings, motives, mental states and reasoning process. Hence, there were some introspective methods used to collect data and understand the observations that students and teachers should report in this study.

3.7.5 Self-Assessment Checklist [Appendix G].

Black and William (1998) suggested that the self–assessment is an essential component of the formative evaluation since it allows learners to experiment autonomy during their learning processes as to review what they have learned and what confusions they still face. For the current research, it was key to understand students. Their answers about their learning process and the strategies they used each week were a valuable feedback to check our planning, make changes and check their advances on each unit.

3.7.6 Reading strategies inventory.

At the end of the implementation, students answered an inventory of actions related to the reading strategies worked [Appendix H] that they did while acquiring the RC strategies proposed in the current research.

3.7.7 End of the project Survey.

Finally, students answered a questionnaire [Appendix I] with six (6) open questions about the development of the project and the skills they acquired through the process.

3.8. Validation Process

Brown, J. D. (2005) asserts that validity is the degree to which a test measures what it claims, or purports to be measuring. The following chart summarizes the data collected to apply triangulation.

Table 2

Triangulation Matrix

Research Question	Research objectives	Source 1	Source 2	Source 3	Source 4	Source 5	Source 6	Source 7
To what extent does the use of digital learning objects in a blended learning environment help tenth and eleventh graders to identify appropriate responses in reading comprehension exercises?	To learn how to recognize explicit information in a text to answer questions with the appropriate response through the use of digital learning objects in a blended environment. To establish if the use of digital learning objects could help to improve reading comprehension in terms of identifying suitable responses and vocabulary in practice and if so to what extent.	Needs analysis questionnaire	Pre-reading test	Production Tasks (pre-reading tasks, vocabulary questionnaires, reading comprehension questionnaires)	Self-assessment checklists	Post-reading test	End of the project survey	Reading Strategies Inventory

The foregoing discussion implied that different sources to collect data were applied in order to provide valid and reliable information. Since triangulation fosters reliability; triangulation was applied to validate data instruments recognizing that the data collection instruments must be valid before being reliable. Hence, four elicitation instruments (Needs analysis questionnaire, Pre-test (Pruebas SABER - KET), Production Tasks, and Post- test (Pruebas Saber KET)) were analyzed quantitatively and three introspection instruments (Self-Assessment Checklist, reading strategies inventory and End of the project Survey) were analyzed qualitatively. Some of them with statistical analysis through frequency polygons, standard deviation as well as correlation coefficients to get reliability; the consistency of measurement.

Chapter 4. Pedagogical Intervention and Implementation

This section aims to provide a detailed description of the pedagogical intervention done in order to achieve the main objectives of this research. First, the current study attempted to incorporate RC strategies into the curriculum in order to help students recognize explicit information in a text and to answer questions with the appropriate response. Second, it examined whether the use of digital learning objects could help to improve reading comprehension in terms of identifying suitable responses and vocabulary in practice. Finally, it evaluated the implementation of the strategy proposed to know how helpful the use of digital learning objects and blended learning was for students' RC.

4.1. Vision of language, learning and curriculum

This research considered a creative and challenging vision of students' needs in order to design the correct strategy to support students to develop RC skills. Thereby, it was very important to clarify this research vision on language, learning and curriculum as will be described next.

4.1.1 Vision of language.

Tudor (2001) and Kumaravadivelu (2011) recognized language as a concept with different aspects to account for: as a linguistic system, as a self-expression, as culture and ideology, and in its functional perspective. Although all of them are to be considered as important, this research focused its attention in language as doing things. It has to do with Hymes' theory of communicative competence, and the social role of language, which leads to a speech community and a framework of structures that are meaningful for a group of speakers, considering the context of the L2 learner and what he/she wants to learn.

4.1.2 Vision of learning.

Accordingly, with the vision of learning the current research was structured around the task-based foundation. Ellis (2003) specified some characteristics for task to be a learning unit that centers its attention on contextual meaning, it has a 'gap'. Prabhu in Ellis, (2003) described three main types: information gap, reasoning gap, and opinion gap. As such the activities of this research provide learners to comply with these gaps to gain communicative competence, specifically improving reading skills. Most of the sessions implemented included the types of tasks as information gap, and reasoning gap.

4.1.3 Vision of curriculum.

Richards (2013) considered three types of curriculum development depending which part of the teaching-learning process the emphasis is on: the input (forward design), the methods (central design) or the outcome (backward design). As a task-based learning development places its attention on the methodology, the curriculum of this study took a central design. This design refers to the planning of a sequence of activities and techniques that could be adapted to the necessary content and outcome expected from students and that could develop critical thinking abilities students might need. In such a way this research curriculum design was student-driven and learner-centered because, as it has been explained before the design goes by sessions with different tasks.

Table 3
Research Timeline

Pre- stage		
Date	Objectives	Data collection Instruments
February	To get information about students' needs	Needs Questionnaire (Appendix)
February	To get permission from the headmaster of the	Consent letters (Appendix)

	school, students and parents	
March	To identify students' reading comprehension level	Pre - test KET (Original Icfes booklet)
March	To analyze students' answers from the needs questionnaire and the KET results.	Needs questionnaire and KET comparison
April	To find the appropriate tool to work with students in a blended environment and plan the activities to run the project.	Lesson Plans
May	To get familiar with the platform, train students in the use of the virtual environment and digital learning objects.	Screenshot of the first session.

<div align="center">Pre- stage. Training</div>

Date	Objectives	Data collection Instruments
May 11th - 18th	To introduce themselves in the platform	Screenshot of the forum
May 19th - 25th	Training Session 1. THE CIRCUS. To learn how to identify key vocabulary and implicit information in a text to answer questions with the appropriate response.	Screenshots of the virtual session
Jun 23th - 30th	Training Session 2. PEOPLE. To learn how to identify key vocabulary and implicit information in a text to answer questions with the appropriate response.	Screenshots of the virtual session
Jun 30th - July 6th	Training session 3. ZODIAC SIGNS. To learn how to identify key vocabulary and implicit information in a text to answer questions with the appropriate response.	Screenshots of the virtual session
July 7th - 13th	Training session 4. CHEATING IN EXAMS. To learn how to identify key vocabulary and implicit information in a text to answer questions with the appropriate response	Screenshots of the virtual session

July 14th - 20th	Training session 5. SPARTANS AND ATHENS. To learn how to identify key vocabulary and implicit information in a text to answer questions with the appropriate response.	Screenshots of the virtual session
While stage		
Sept 15 - 21	Session 1. BULLIED. To develop the reading strategy of making predictions out of explicit information from a text.	Pre- reading data Reading questionnaire results Self-assessment checklist
Sept 22 - 28	Session 2. STREET ART. To Develop the reading strategy of scanning out of explicit information from a text.	Pre- reading data Reading questionnaire results Self-assessment checklist
Sept 29- Oct 5	Session 3. A GENERATION OF COUCH POTATOES. To develop the reading strategy of skimming out of explicit information from a text.	Pre- reading data Reading questionnaire results Self-assessment checklist
Oct 6 - Oct 12	Session 4. BODY PIERCINGS AND TATTOOS. To develop the reading strategy of questioning out of explicit information from a text.	Pre- reading data Reading questionnaire results Self-assessment checklist
Oct 13 - Oct 19	Session 5. VIDEO GAMES ARE GOOD FOR YOU. To develop the reading strategy of making predictions out of explicit information from a text.	Pre- reading data Reading questionnaire results Self-assessment checklist
Oct 20 - Oct 26	Session 6. STAGES OF ADOLESCENCE. To develop the reading strategy of scanning out of explicit information from a text.	Pre- reading data Reading questionnaire results Self-assessment checklist
Oct 27 - Nov 2	Session 7. THE ORIGINS OF HIP HOP. To develop the reading strategy of skimming out	Pre- reading data Reading questionnaire results

	of explicit information from a text.	Self-assessment checklist
Nov 3 - Nov 9	Session 8. HOW SMOKING AFFECTS YOUR HEALTH.	Pre- reading data
		Reading questionnaire results
	To develop the reading strategy of questioning out of explicit information from a text.	Self-assessment checklist
Post stage		
Nov 10 - Nov 13	To analyze students' progress	Post - test KET (Original Icfes booklet)
Nov 17	To analyze students' use of reading strategies	Reading strategies inventory
Nov 18	To analyze students' perceptions of the project	End of the Project Survey

4.2. Materials and Resources

In order to carry out the implementation of the strategy, it was decided to open a virtual course in the Moodle platform supplied by "Portal Educativo Red Académica Bogotá" to public schools. It is provided to develop virtual training courses using the BL methodology and bringing students to use and improve their technological abilities. One of the requirements was to organize the course to be implemented in didactic learning units (i.e. in DLOs), a plan of the whole course for students to have a general vision of the course and all the information for them to self-regulate their learning process, their time management, their goals and the way they would be evaluated. This platform was the main resource selected to be the virtual classroom of students thanks to its facilities and the additional online resources provided.

The needs analysis questionnaire designed in Google forms was provided to students through an online link. The pre-test and post-test were the same KET physical test designed by the ICFES, learners were provided with the same booklet at the beginning and the end. Students were also provided with a "virtual reading strategies inventory" and with "the end of the project survey", both designed in Google formats as shown in the next three figures.
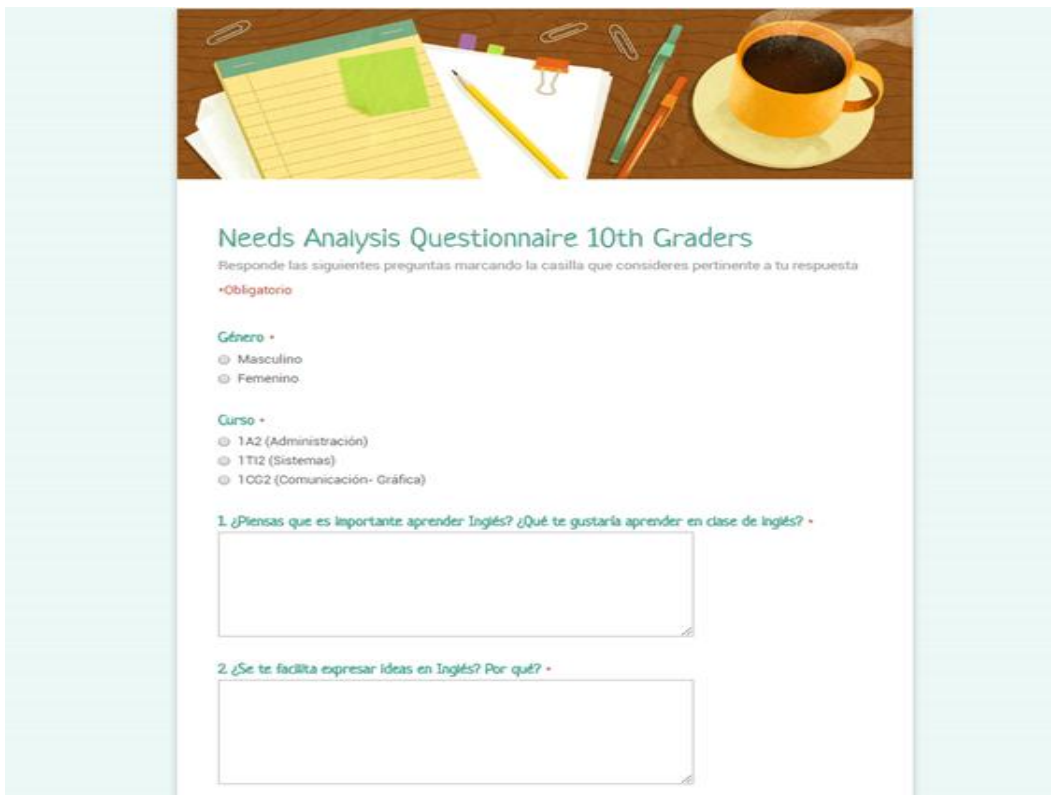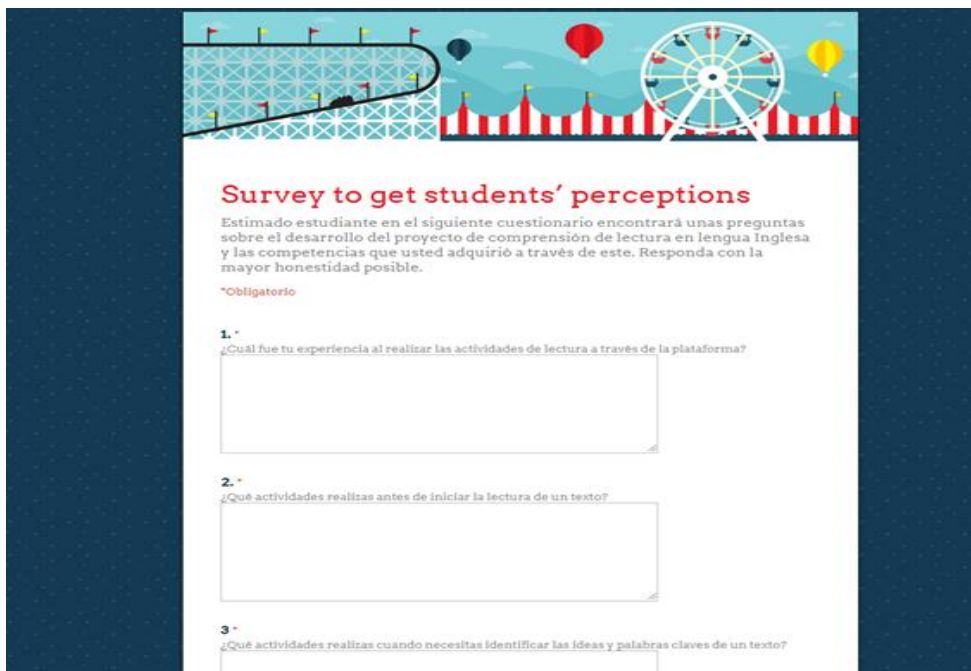
Figure 1. Screenshot of needs analysis.

Figure 2. Screenshot of the End of the project survey.

Figure 3. Screenshot of the Reading Strategies Inventory.

Since students received only 2 hours of English class per week which are sometimes

missed because of many activities from the school and Secretaría de Educación, we found

Moodle as the alternative to work with them and enrich their technological abilities to improve

their RC through some reading strategies. In this LMS students and teachers can hold discussions

through the forums, upload reading texts, show videos related to different topics, carry out

learning activities, such as: questionnaires, forums, diagrams, embedded activities from different

web 2.0 tools, make different announcements, upload different learning resources, grade

students' work and conduct self-assessment. This was the link of the course in the platform

http://formacionvirtual.redp.edu.co/course/view.php?id=496

Figure 4. Screenshot of the platform.

Thirteen lessons were designed to apply the strategy in this research project: five training sessions, to train students on the use of the platform and some web 2.0 tools. These sessions were divided into face-to-face sessions and the corresponding work on the platform. Additionally, eight sessions were created to apply the four different reading strategies, two sessions per reading strategy. During the face-to-face training sessions, the material used was the English book, some pieces of paper with exercises and students' notebooks. During the online training sessions there were web 2.0 tools used in the LMS Moodle such as videos from "YouTube" to present each session. These videos were used to present and teach each reading strategy due to their audiovisual impact on students learning. This is an example https://www.youtube.com/watch?v=YOHCWSadPx0.

To help students to become more autonomous, strategic and responsible by giving them some tools to look of the meaning of different words and some others to develop the predicting reading strategy.

Figure 14. Screenshot of the videos.

After the online platform and reading strategies training, the researchers decided to design 8 sessions with different tasks in order to support students to develop the four RC strategies proposed. Each session was divided into five parts:

First, a presentation to introduce the session to students for them to get a general idea about the session and the corresponding information about the reading strategy that they worked on. In this part of the lesson the researchers were information providers. Thus, students were provided with a short introduction of the unit, the class objective, the language goal, the learning to learn goal and an explanation of the reading strategy enriched with pictures or videos, see figures 5, 6, and 7 below.

Figure 5. Screenshot of the Presentation Session 1.

Figure 6. Screenshot 2 of the Presentation Session 1.

Figure 7. Screenshot 3 of the Presentation Session 1.

Second, an Introductory Task to have students prepare for the text they were to read: vocabulary was presented and students had to develop some activities related to vocabulary acquisition, see figure 8 below.
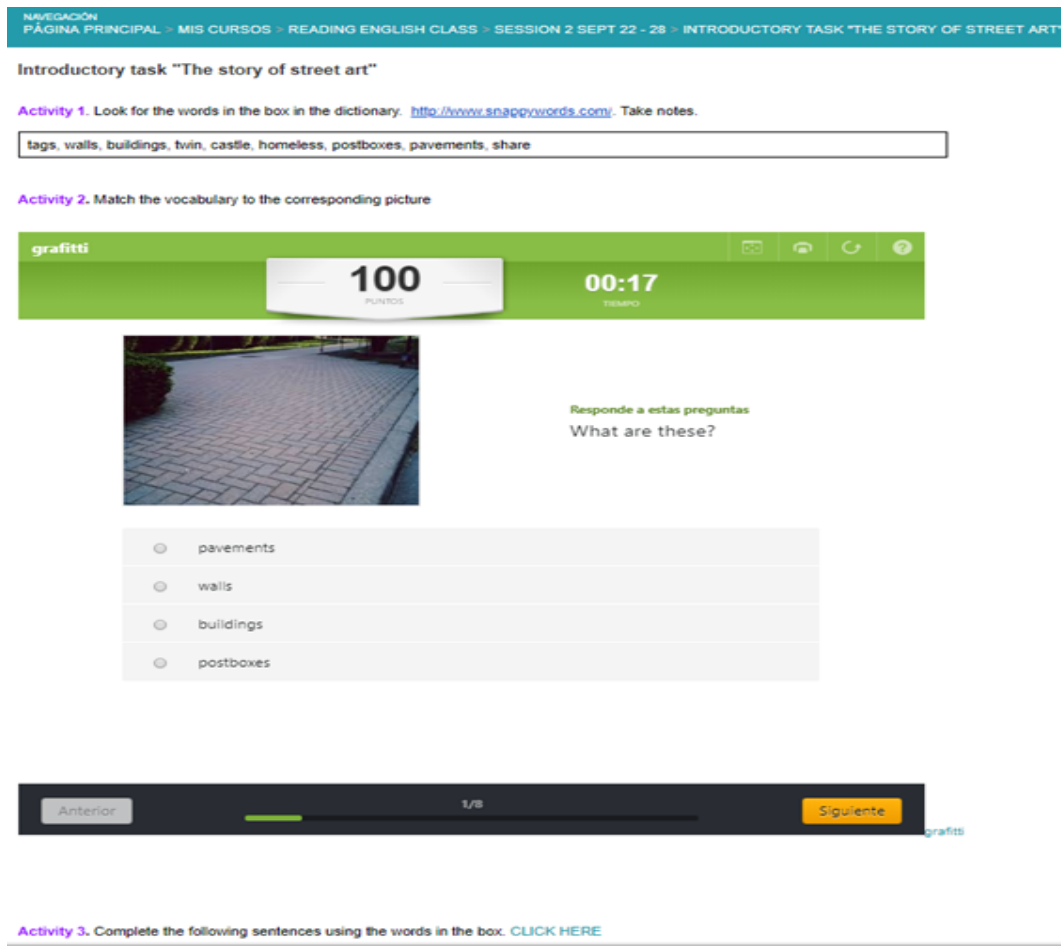
Figure 8. Screenshot of Introductory Task Session 2.

Third, an Intermediate Task consisting of two parts, which were the pre-reading stage designed to anticipate ideas about the text to activate schemata and understand the text better, see figures 9 and 10 below.
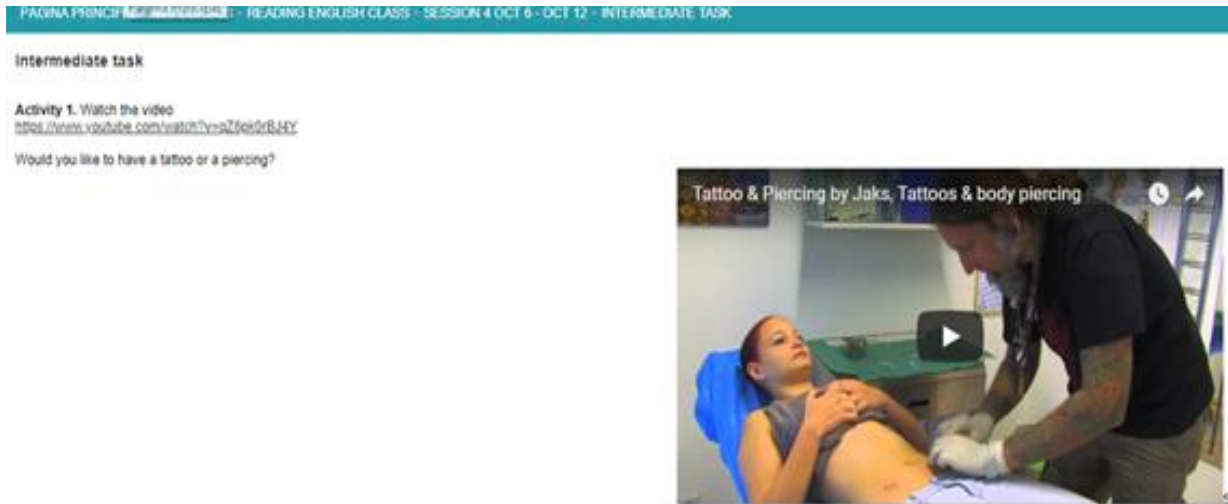
Figure 9. Screenshot 1 of Intermediate Task Session 4.
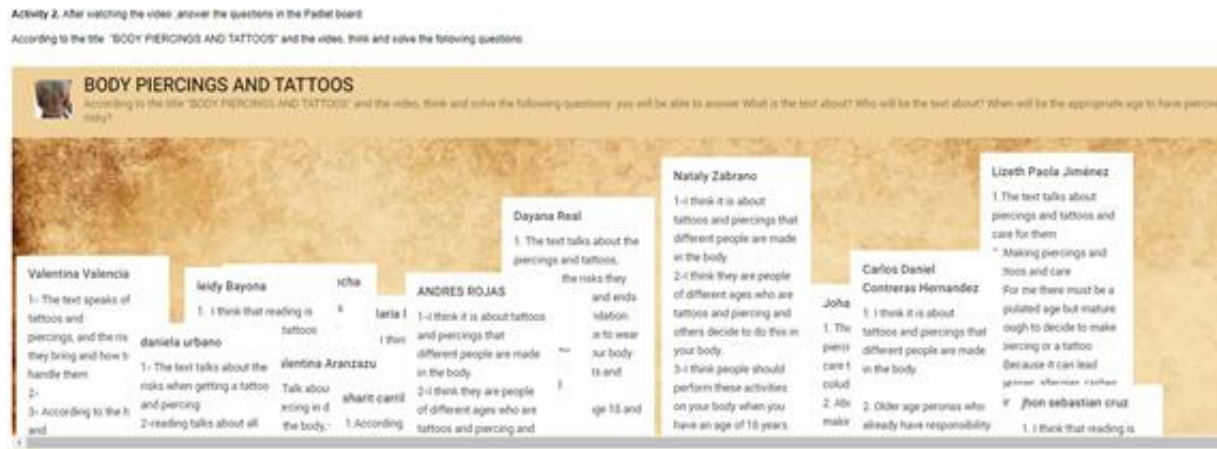
Figure 10. Screenshot 2 of Intermediate Task Session 3.

and the while reading section designed to have students read the text and start developing the reading strategy proposed per session. Every session enclosed the reading text topic focused on students' social context and the reading strategies proposed; Predicting, Scanning, Skimming, and Questioning, see figure 11 below.

Figure 11. Screenshot 3 of Intermediate Task Session 4.

Fourth, the Final Task consisting of the post- reading stage to evaluate students understanding of the text and use of the reading strategy. This part included a game created by the researchers in a free web 2.0 tool to understand the text or practice RC and a questionnaire designed in the Moodle platform to get data of their reading comprehension, see figure 12.

Fifth, a self- assessment where students were asked to evaluate their achievement in each virtual session. It was also used for researchers to find out how useful the tool was, see figure 13.
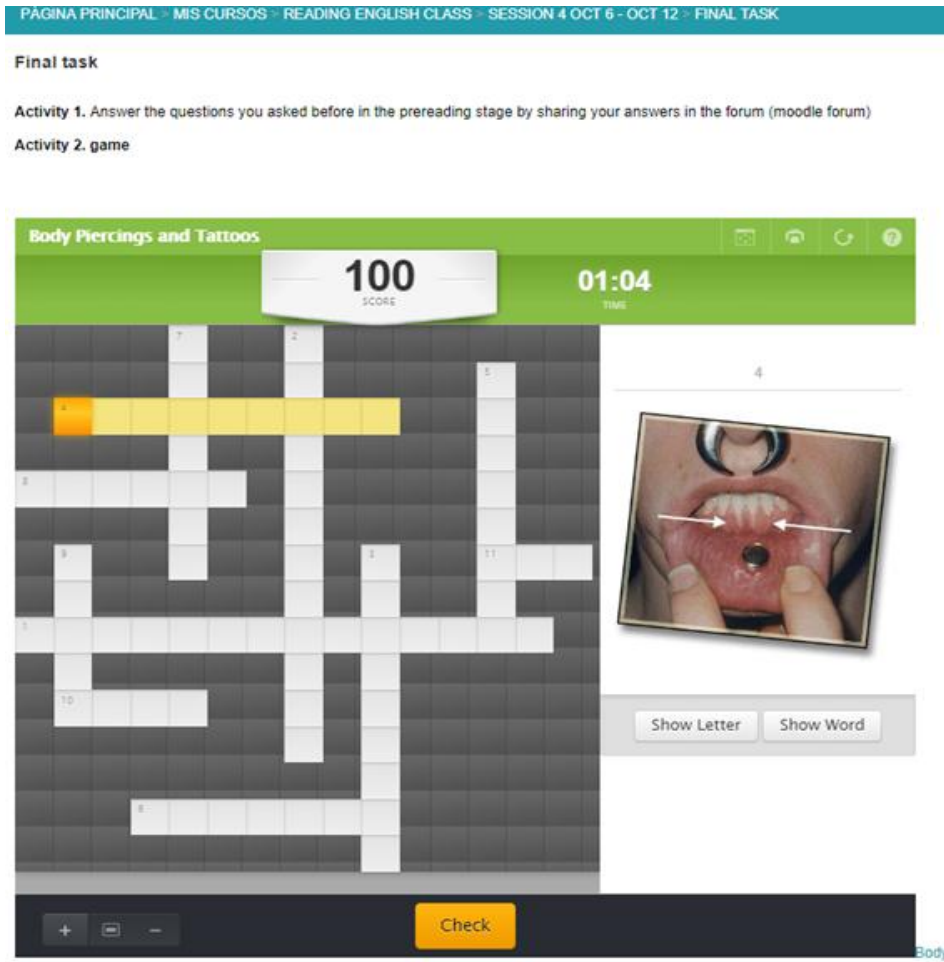
Figure 12. Screenshot 1 of Final Task Session 3.
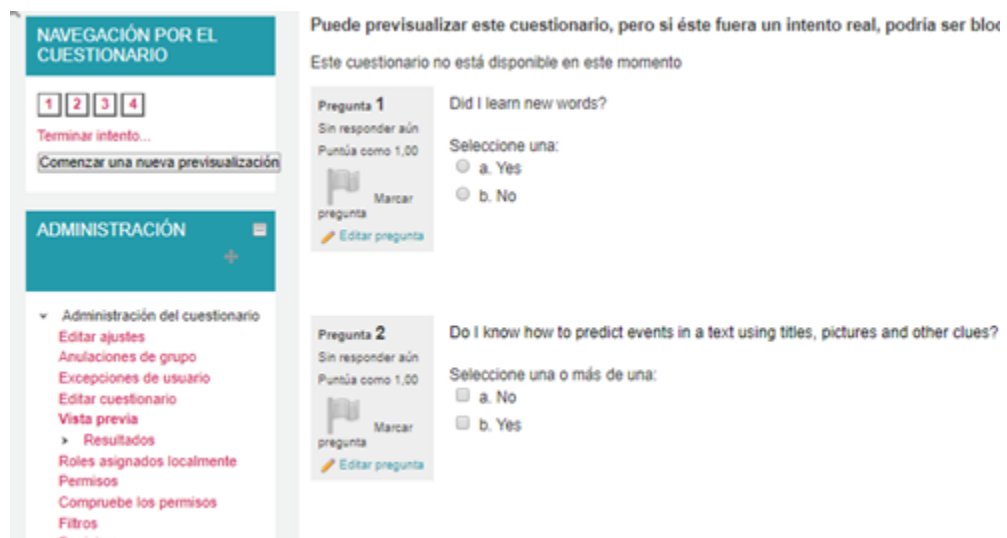
Figure 13. Screenshot 1 of Self-Assessment Session 1.

Each session included six main digital resources into the virtual platform that formed the DLOs: 1) an online dictionary that helped students to make relationship into vocabulary learning. 2) Online questionnaires designed by the researchers to contextualize new structures and/or vocabulary and evaluate students' achievement. They were also a faster and more flexible way to use for students due to their attractive design while it helped researchers to evaluate as these questionnaires saved time and their data was simple to analyze. These questionnaires included the students' self-assessment. 3) An online virtual board, a collaborative tool designed by the researchers for brainstorming and sharing ideas with others. 4) An online crossword, a virtual object designed by the researchers to practice and train students' knowledge on the vocabulary studied in the introductory session. 5) Online videos used as tools to give a context to students and activate schemata. 6) Online games designed by the researchers using different free web 2.0 tools to get students to comprehend the text in a fun, attractive and interactive way. Below are some examples:

A Padlet Board https://es.padlet.com/ with vocabulary and questions that asked students to share their opinions about the topics addressed.

Figure 15. Sample of Padlet boards.

Some crosswords were also designed in Educaplay to help student to expand their vocabulary

related to the topics addressed.

http://en.educaplay.com/en/learningresources/1856835/circus_vocabulary.htm

Figure 16. Crosswords.

Burger diagrams were designed to think, remember and reconstruct the reading text after

reading comprehension took place. http://www.classtools.net/education-games-php/burger
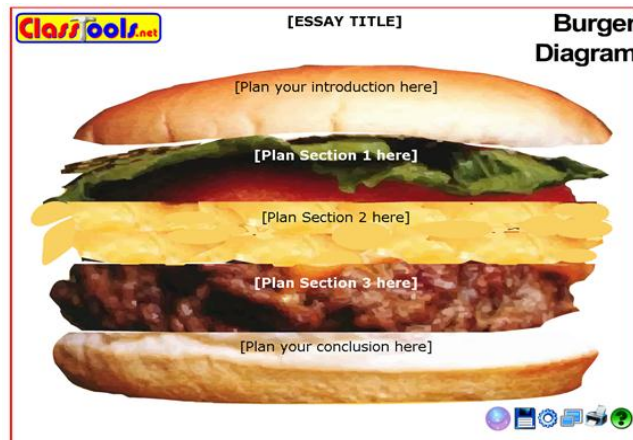
Figure 17. Burger Diagram.

and a self-evaluation at the end of each unit. Games created by the researchers using

Educaplay in different links such as the following to increase students' vocabulary

http://en.educaplay.com/en/learningresources/1871508/getting_people_information_.htm
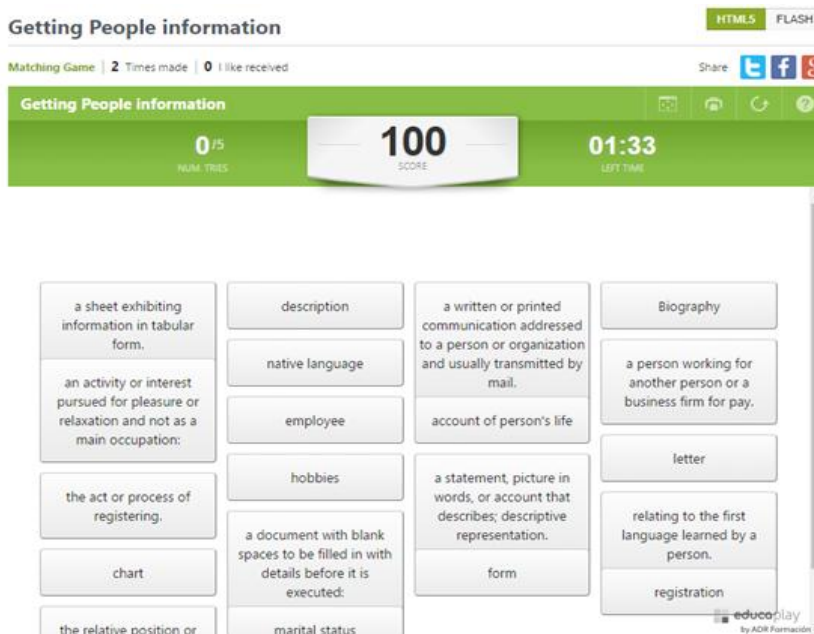
Figure 18. Games in Educaplay.

There were also online dictionaries http://www.snappywords.com/ used to look for the

meaning of words
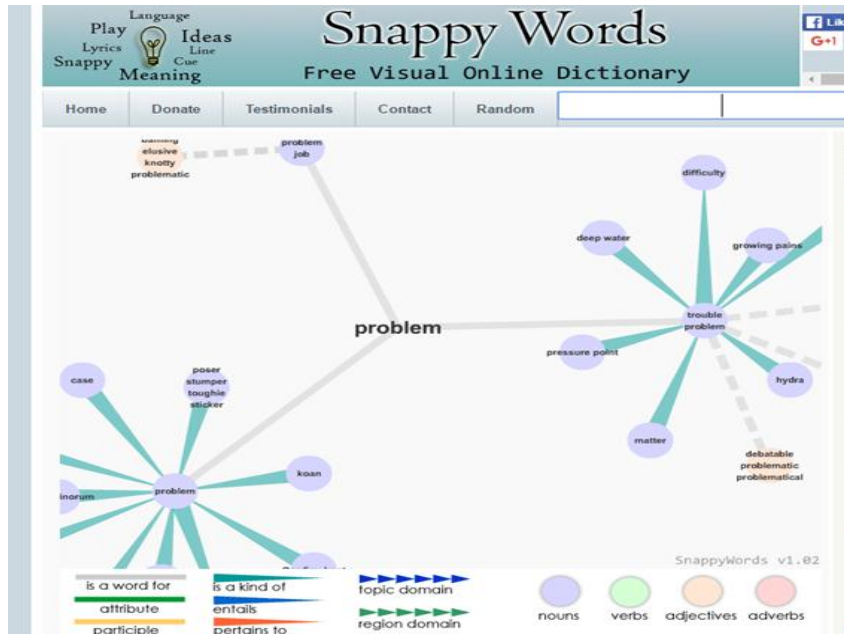
Figure 19. Snappy words.

and Games created in Superteacher tools and Classtools by the researchers to practice vocabulary.

https://www.superteachertools.net/speedmatch/speedmatch.php?gamefile=1431322990#.VVBIZY5_Okp, http://www.classtools.net/widgets/lights_out_2/LAOg7.htm
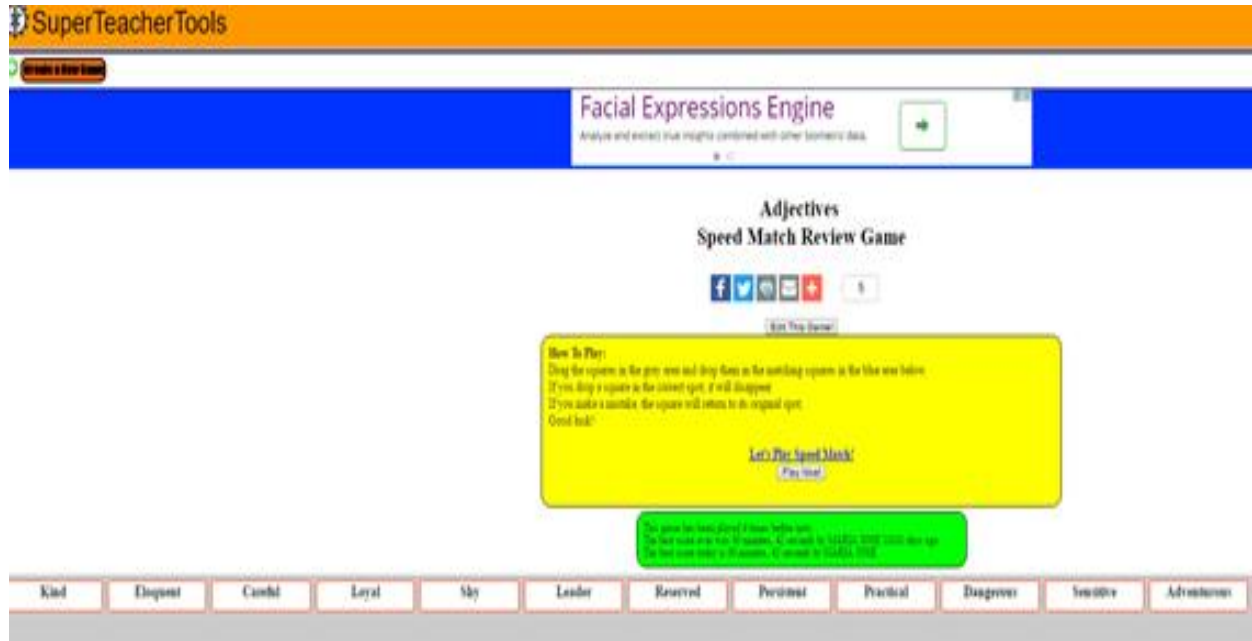
Figure 20. Superteacher game sample.

Chapter 5. Results and Data Analysis

This section describes the focal point of this research study. In this chapter quantitative and qualitative data are considered as to account for the way that all data was collected, analyzed and how they came together to get results in response to the problem exposed in this research. Besides, it reports the emerging categories after data was analyzed. With the description of the findings it is intended to answer the research question that guided this study: to what extent does the use of digital learning objects in a blended learning environment help tenth and eleventh graders to identify appropriate responses in reading comprehension exercises?

5.1. Data management procedures

Data collected in this research were digitized and electronic files were kept organized according to students' names and the way they were developed during the process of implementation and data collection. First the needs analysis survey and pre-test results (KET sample test reading part) served as a decision-making material to plan and execute the implementation. The post-test results were relevant to observe and demonstrate the effectiveness or ineffectiveness of the action plan. Post-test results were written down in the same file in front of pretest results, to make a comparison.

Second, in different files there were eight pre-reading exercises and their corresponding memo analysis, one by one; also, an end of the project survey with its memo, as well as a reading strategy inventory survey and its analysis. Third, data from the self-assessment checklists of the eight digital sessions were collected together in a file to facilitate coding process. Since validation in this research is sustained by the triangulation of the data collected each data set was analyzed separately and finally compared to get valid results. Researchers checked the consistency of the findings by displaying, analyzing and contrasting them. This procedure

supported the identification of common patterns and the correlation of the results found in learners, instruments and coding process.

The following table summarizes data collection instruments, the type of data and the data analysis methods used for this research.

Table 4
Data Collection Instruments

Data Collection Instruments	Participants	Nature of Data	Data Analysis Methods
Needs analysis questionnaire	students	quantitative	Inferential statistics
Pre- reading test	students	quantitative	Inferential statistics
Production Tasks (pre-reading tasks)	students	qualitative	Grounded theory
Production Tasks (vocabulary questionnaires)	students	quantitative	Descriptive statistics
Production Tasks (reading comprehension questionnaires)	students	quantitative	Descriptive statistics
Self-assessment checklists	students	quantitative	Descriptive statistics
Post-reading test	students	quantitative	Inferential statistics
End of the project survey	students	qualitative	Grounded theory
Reading Strategies Inventory	students	quantitative	Descriptive statistics

5.1.1 Data analysis methodology.

According to Johnson, Onwuegbuzie and Turner (2007) qualitative and quantitative research are important and useful since many combinations of questions have been answered by applying mixed research solutions. Thus, the resulting mixture of methods supplement strengths and non-overlap weaknesses of the research, that is how authors proposed the fundamental principle of mixed methods.

Qualitative data in this research was analyzed implementing Grounded theory. This methodology and its methods have proved to be the most effective and systematic for social sciences, since it guides researchers to interpret data by following procedures which end up with

theory (Glaser & Strauss, 1967). Furthermore, one of its statements is that data help the investigator to generate concepts if he/she is able to interpret and find commonalities in the data he/she collects, as well as to code the empirical facts he/she is finding through his research endeavor. In the current study coding started by coloring patterns and finding relations between them to reduce data and generate categories that allowed us to interpret students' answers and get valid results.

On the other hand, quantitative data; the Pre- reading test, Production Tasks (vocabulary questionnaires, reading comprehension questionnaires), Self-assessment checklists, and the Post-reading test, were analyzed by applying descriptive statistics in order to get measures of central tendency, dispersion and express the numerical findings of this study.

5.1.2 Validation (triangulation).

As asserted before, quantitative data was analyzed in the light of grounded theory. Coding emerged from two phases: initial and focused coding. Initial coding is an analytical procedure that requires researchers to find commonalities and relationships between the different data collected. Sometimes participants' terms are taken as in vivo codes. Then, focused coding implies choosing the most suitable codes from the initial process. This entails going back and forth comparing data with data and data with codes (Charmaz, 2006). Triangulation and piloting allowed research material to be valid and consequently reliable.

5.2. Categories

Following the question framing this research study and considering its objectives, three

subcategories emerged as well as one core category which covered the research as in the figure

below.

5.2.1 Overall category mapping.
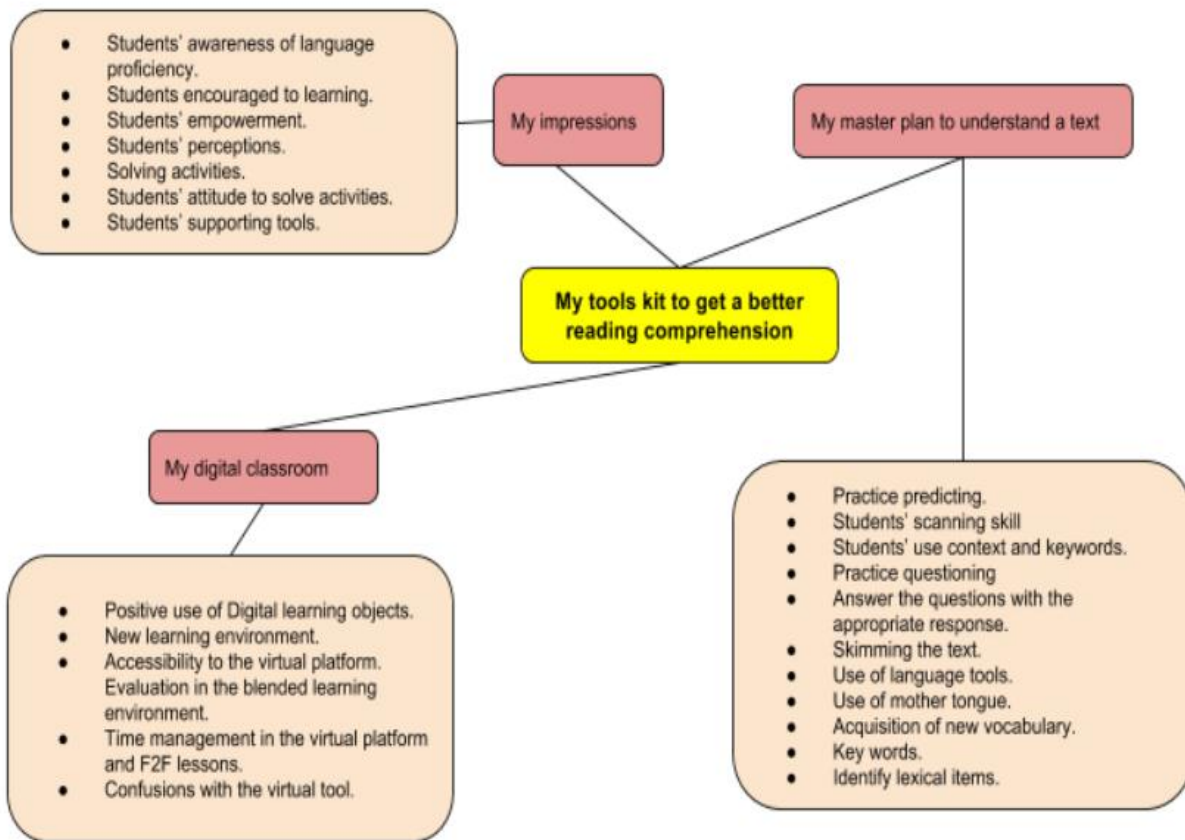
Figure 21. Core category and sub/categories emerged from data analysis.

5.2.2 Discussion of categories.

Data yielded in this study provided a core category and three subcategories considering

qualitative data using open, focused and axial coding. Table 5 contains a summary of the aspects

that emerged after the analysis summary.

Table 5

Research Question, core category and sub-categories

Research Question	Core Category	Sub-Categories	Examined aspects
To what extent does the use of digital learning objects in a blended learning environment help tenth and eleventh graders to identify appropriate responses in reading comprehension exercises?	My tools kit to get a better reading comprehension	My impressions	• Students' awareness of language proficiency. • Students encouraged to learning. • Students' empowerment. • Students' perceptions. • Solving activities. • Students' attitude to solve activities. • Students' supporting tools.
		My digital classroom	• Positive use of Digital learning objects. • New learning environment. • Accessibility to the virtual platform. • Evaluation in the blended learning environment. • Time management in the virtual platform and F2F lessons. • Confusions with the virtual tool.
		My master plan to understand a text	• Practice predicting. • Students' scanning skill • Students' use context and keywords. • Practice questioning • Answer the questions with the appropriate response. • Acquisition of new vocabulary. • Key words. • Identify lexical items. • Skimming the text. • Use of language tools. • Use of mother tongue.

5.2.2.1 Sub-category 1. My Impressions

Theorists agree on the idea that students' self-reflections can be one of the most reliable source for measuring instruction impact (Zimmerman & Schunk, 2001). Besides students' reflections help to lead their efforts to what they needed to improve on and to observe how far they had got. In this research students' self-reflections resulted in some aspects learners were able to recognize during the whole process, like: students' empowerment and language proficiency awareness.

Learner centeredness has to do with helping students assume their learning process and manage the procedures to be successful in it. This considers and comes around different processes like learners' empowerment (Novak,2002). When a student is empowered, wish to learn and advance emerges from within. Students participating in this research started to feel empowered when they asserted that they needed to learn a second language like English. Besides participants were able to say what they expected from the process they were about to start.

Las respuestas más comunes fueron:	si: 100% Es importante	
Es importante aprender Inglés 100%.		
	Para conseguir un buen trabajo (10%)	Es importante aprender inglés.
• Importante para cualquier carrera.	Es una lengua universal (21%)	Para poder comunicarse .
• Para salir a otros países y poder comunicarse.	Abre puertas en todos los aspectos (31%)	Para el trabajo.
• Buen desempeño en el futuro.	No dieron una razón(36%)	
• Abre puertas laborales.		
Lo que les gustaría aprender:	Le gustaría aprender:	desean aprender: Vocabulario.
• Hablar fluidamente.		conversaciones y mejorar
• Conversar con buena pronunciación.	Vocabulario (5%)	pronunciacion.
• Más vocabulario y gramática.	Hablar con fluidez/conversar (21%)	
• Rutinas diarias en lugares cotidianos.	Pronunciación (5%)	
• Temas interesantes.	No sugirieron nada (63%)	
• Leer y escribir con mayor facilidad.		
• Conjugación de verbos y pronunciacion.		

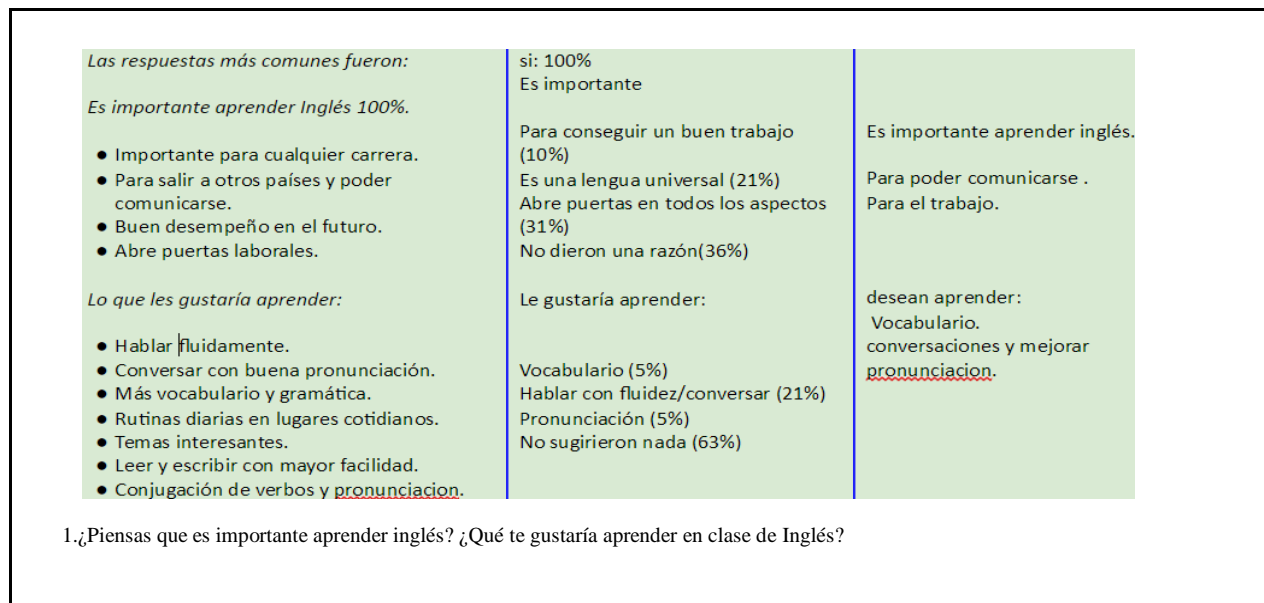1.¿Piensas que es importante aprender inglés? ¿Qué te gustaría aprender en clase de Inglés?

Figure 22. Needs analysis questionnaire findings excerpt question 1.

According to the statements above, students were able to set goals connected with their realities and social context, so they wanted to learn a second language for keeping up with academic processes, for travelling, and for working opportunities. Likewise, the part that asked for students' expectations called students attention to set learning objectives they could measure. It is informative to see that the group that did not suggest anything in this part of question 1 (63%) is the one whose score was the lowest in the pre-test.

Language proficiency awareness also appeared in this part of the process. To start the implementation participants were asked about their perceptions on their commandment of the four communicative abilities and vocabulary attainment perception. Researchers focused their attention on reading and vocabulary part because they were the main skills of this research.

How do you perceived your reading comprehension (now) What do you want to improve?
1= bad / 2= aceptable / 3= good / 4= very good / 5= excellent

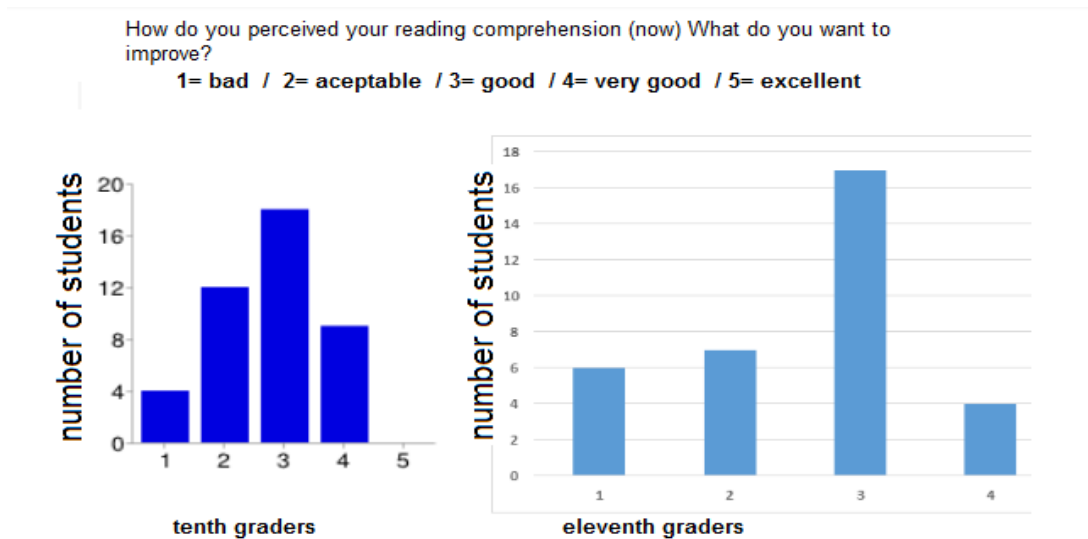tenth graders   eleventh graders

Figure 23. Needs analysis excerpt question 11 answer a.

Here it is observable that for the reading part they asserted they felt average. Half the number of students said that they felt good and none of them felt excellent. In their remarks to this question they said they want to improve so as to feel excellent and that one of their shortcomings was lack of vocabulary.

Zimmerman (1990) have considered the different aspects that learners' empowerment entangles and define it like recognized control in intellectual, personality and motivational terms. This control is obtained through experiences that lead students to understand which skills are necessary for different and specific tasks and how and when to use them.

2. ¿Se te facilita expresar ideas en Inglés? Por qué?	*Sí: 4 estudiantes* *Las respuestas más comunes fueron:* ● Porque conocen variedad de vocabulario. ● Traducen muchas canciones en inglés y jugaban juegos con subtitulos. ● Tienen buenas bases.	si: 16% porque: Usa subtitulos en peliculas y juegos. Escucha canciones.	si: cuando usan subtitulos en canciones, peliculas y/o juegos. La mayoria no Falta vocabulario No sabe como armar frases Se confunde con la pronunciación.
	No: 39 estudiantes *Las respuestas más comunes fueron:* ● Confunden pronunciación. ● Les cuesta entender cuando se distraen. ● No lo dominan. ● Un persona ha cambiado mucho de colegio y no ha entendido ningún tema. ● Falta de vocabulario. ● Falta de dominio en la organización de las frases para decirlas. ● No comprenden el uso de los auxiliares.	No: 55% porque Se confunde con cómo escribirlo y el orden de las palabras Falta pronunciación y vocabulario No se esfuerza Un poco: 27%	

Figure 24. Needs analysis findings question 2.

This is evident in students' answers to question 2 ("Is it easy for you to express ideas in English? Why?") in the needs analysis. They realized they had used some learning means that they found successful like listening to songs and playing games using subtitles. They found them suitable for acquiring the abilities they thought necessary, mainly acquiring lexicon.

Implementation enhanced empowerment concept when students began using the predicting strategy because they perceived they could anticipate the main ideas of the texts before reading them. This idea was strengthened when they answered the self-assessment checklist at the end of each session and recognized if they were improving or not and in what aspects.
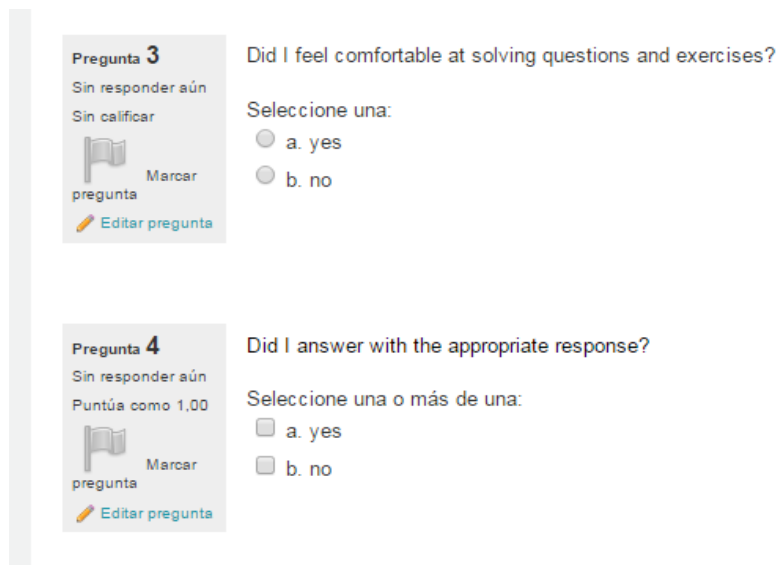
Figure 25. Self-evaluation checklist screenshot session 1.

Figure 25 displays the questions that guided learners to observe their performance. Questions 3 (Did I feel comfortable at solving questions?) and 4 (Did I answer with the appropriate response?) asked students to self-evaluate their attitude and academic attainment which in most of the cases were positive.

Initial/Open coding	Focused Coding	Axial Coding
- Improvement in English proficiency evidenced	- Students' awareness of language proficiency	Students' self reflections.
- A new great experience (16) - A not good experience (2)	- Students encouraged to learning	Vocabulary acquisition
- Easy activities to solve(6)	- Vocabulary acquisition	Virtual learning environment
- Activities sometimes were non understandable (1	- Students' interest on reading texts	
- New vocabulary acquisition(13)	- Digital learning object	
- Learn to think on the appropriate response at the moment of solving activities(1)	- New learning environment	
- New good, interesting texts easy to understand and interesting to delve into them. There was an improvement in reading comprehension process.(14)	- Students' empowerment	
- Learning through a nice virtual technological tool but sometimes it was difficult to work and learn through it.		
- A new dynamic and different way to learn English. (13)		
- Feeling of comfort to do the reading comprehension (1)		
- Improvement to understand and answer the questions.(1)		
- Learn to understand the texts(1)		
- Easy way to practice in any place (1)		
- Development of skills that did not. (1)		
- Comfort feeling to do a good analysis of each		

Figure 26. End of the project survey Qualitative data analysis Question 1.

The end of the project survey shed a greater light on this idea of students' empowerment by this process, see figure 26. To question 1 in the end of the project survey students declared feeling comfort with the RC exercises, as they understood and answered the questions. They also became aware of getting abilities they had not had before, even though they named them in other questions. Alongside, students claimed they felt progress in language performance with statements that indicated awareness of language proficiency and success in the endeavor they went through.

As discussed above, for students to feel empowered they needed to perceive they handle the situation and the different variables that affected the accomplishment of any task and the factors that made them successful. This was only possible if learners reflected on the procedures they had to do to obtain their learning goals. This made them responsible of their learning process, enhanced their critical thinking abilities and directed their learning efforts.

In question 5 answers learners claim the achievement of skills that were promoted during the process namely, reading strategies. It is observable that most students felt they advanced at their ability to face with texts in English. 40% of students felt good or average at reading texts in English. Only 5% of students said that they didn't feel good at it. Besides a 27% could classify the types of the texts they could read in comparison to an 8% that cannot.

Initial coding	Focused Coding	Axial Coding
- Almost sure to answer the whole questions with the appropriate response(1)	- Answer the questions with the appropriate response	Reading comprehension strategies
- Yes, (26)	- Confusions with the virtual tool.	Virtual learning environment
- Sometimes because there were some confusions(9)	- Students' encouraged to try	Students' self reflections.
- Difficult at the beginning, there were confusions or words bad written (3)	- Students' use context and keywords.	
- Try again when there were not understandable facts	- Students' strategies to check understanding	
- Answers were easy to detect in the text using context and keywords (6)		
- It was a matter of use logic and analyse the information to understand better.(2)		

Figure 27. End of the project Survey question 6.

For question 6 (Did you answer the questionnaires with the appropriate answers according to each suggested text and considering that the general context will help you find the correct answer?) almost all the students were sure to answer the overall questions with the appropriate response; however, they found some exercises had closed answers which did not accept words without capital letters or spaces.

Q5 ¿Cómo percibes tus habilidades de lectura en este momento? Describe con cuál te sientes más cómodo o en cuáles encuentras más facilidad

Initial Coding	Focused Coding	Axial Coding
Good (9)	Acquisition of new vocabulary	Students' self reflections
Not good (2)	Students' motivation	Vocabulary acquisition.
So so (5)	Students' perceptions	
They feel they develop reading abilities like finding key words, and acquiring vocabulary (13)		
Interesting readings, not that long and from familiar themes (6)		
Cannot classify the texts he/she can handle(3)		
Lack of vocabulary was an impediment (3)		

Figure 28. End of the project survey. Q 5.

Finally, students recognized that they had improved in reading by gaining vocabulary and thanked to the use of strategies to confront texts. But their impressions went further as to be able to recognize the types of texts they could read.

To question 5 "How do you perceive your RC skills now?" most of the students answered they felt good. Besides they claimed they developed strategies that eased successful RC like finding keywords. They also acknowledged they could read texts they find interesting, not long and from familiar themes. This indicates that students used self-assessment successfully.

5.2.2.2 Sub-category 2. Blended learning environment Interaction.

According to McCarthy (2010), in an online teaching-learning environment, students can communicate at their own pace and consider comments and responses, rather than being 'put on the spot' in the physical classroom. One of the new aspects for students in this project was the interaction with DLO in a virtual platform together with face-to-face lessons as they had not had this experience before. DLOs were a new tool for teachers and students to learn and take advantage of the influence that technology evolution has on education.

The Blended Learning was the methodology which enabled us to work with students and gave them an opportunity to learn and communicate their advances in a different and digital way. Hence the LMS (Learning Management System) Moodle which is provided in the web page of Red Académica was selected as the host site to carry out this study. In the needs analysis questionnaire, we could see some details which helped us to decide about the BL environment as you can see in the following excerpt (see figure 29). Even though the questionnaire was administered in Spanish, it was translated into English for the readers of this research.

Questions	10° 1A2	11° 2TI2
6. Do you have internet at home or know how to surf the Internet?	Yes 39 students 91% No 4 students 9%	Yes 100% No
7. Do you have experience with online courses to learn English? How was that experience?	No 37 students 86% Yes 6 students 14% To improve pronunciation and learn new words. Through Skype. Very difficult at SENA. Very repetitive Rosetta Stones.	No 83% Yes 16% On one hand it was unclear and students did not continue. Others are using Duolingo and are happy.
8. Have you done English exercises online (internet)?	No 28 students 65% Yes 15 students 35%	No 72% Yes 26%
9. Have you joined a social network lately? Which?	Yes 30 students 70% No 2 students 5% Didn't answer 13 students Facebook, Messenger, WhatsApp, Twitter, Instagram, Ask, Youtube, Tumblr, snapchat, Vine, Hotmail, Gmail, taringa, myspace, skype, line. The most used are: Facebook, Twitter y whatsapp.	Yes 72% No 26% The most used are Facebook, twitter, whatsapp and instagram
k. 10. How long do you connect with social networks? You can answer more than one if they match your habits. l. I do not connect m. 1h to 2h n. 3h to 5h o. 5h to 10h p. All day q. Weekends r. At night s. Everyday t. In the morning u. Other, Which?	Every day 30% 1h to 2h 26% 3h to 5h 14% 5h to 10h 7% All day 5% In the morning 2% At Night 2% I do not connect 2% Weekends 0% Other 2%	Every day 26% 1h to 2h 11% 3h to 5h 5% 5h to 10h 5% Every day 26% At night 38% Weekends 5%

Figure 29. Excerpt of needs analysis, questions 6,7,8,9 and 10.

Wiley, D. A. (2000) described a learning object as "any digital resource that can be reused to support learning" (p. 6). This research looked for a resource that suits students' needs in order to scaffold their learning process and use a new way to learn to be reused and adapted with the next generations, that way it is possible to continue in the cycle as AR suggests.

It was observed that 95% of students had access to Internet at home, had used social networks, had solved English exercises online, but the most relevant aspect for us was their

connectivity to internet almost every day and during long periods of time. Nevertheless, they had

not had the experience to interact in a blended learning environment or at least in a virtual

platform.

Then, a closer look at the data gathered from the end of project survey (Figure 30) show

that students felt comfortable learning through DLO because it was new for them.

Figure 30. End of the survey Project Q 1. Experience through the platform.

Most of students from both groups also commented that there were some problems in the

platform such as accessibility, time limit for activities and some reading comprehension

questionnaires that took some answers as wrong and others not, even if they were right. In

addition, the most important aspect to begin with this kind of instruction at Veintiún Angeles

school was that students could learn from themselves to control their pace organizing their times

according to the content provided to work in the virtual platform.

Initial/Open Coding	Initial coding	Focused Coding	Axial Coding
- Le gustó la plataforma porque le permitía evaluar conocimientos - Sugiere que la plataforma tenga facilidad de acceso	The platform helped to evaluate knowledge so it was a nice way to learn (7)	- Accessibility to the blended learning environment	Blended learning environment
- no	No (19)	- Evaluation in the blended learning environment	
- Evitar la exactitud en los cuestionarios pues cuando exigía mayúsculas aunque estuvieran bien aparecían como mal	Accessibility problems (2)	- Time management	
- no	More time for doing activities (2)		
- Ordenar las actividades			
- Las actividades estuvieron divertidas - Informaban sobre aspectos cotidianos - Fue un buen aprendizaje			
- los cuestinarios fueran mas didacticos			
- Cambiar plataforma - Prolemas de acceso			
- no			
- Le agradó las actividades de la plataforma			

Figure 31. End of the project survey analysis. Any other comments or suggestions?

Finally, students expressed that using the BL environment was not easy at the beginning of the implementation because it was necessary to change completely the way they were used to learn at the public school. However, they recognized that it was possible to adapt to other ways to learn, to build up their autonomy and considering their low English proficiency level. As a matter of fact, they could do most of the activities with success.

In addition, teachers got some difficulties at the beginning of managing the Moodle platform due to the lack of mastery with this LMS. Thus, it was necessary to look for information and video tutorials in different web pages in order to learn how to manage Moodle. It was also necessary to ask for suggestions to engineers from Sabana university, Secretaría de Educación, and Veintiún Ángeles school teachers from technology, to understand the management and creation of questionnaires and different resources in Moodle. Students were not

the only ones who benefitted from this research, teachers recognized that it was a very

challenging way to practice their self-directed learning.

5.2.2.3 Sub-category 3. Reading comprehension strategies.

The third sub-category which involves all the strategies and examined aspects considered

to develop RC in students was "Reading comprehension Strategies". Basically, four strategies

were examined: Predicting, questioning, skimming and scanning. The data gathered to support

this category emerged from the needs analysis where it was appreciated from the first time that

students did not have a good RC and most of them wanted to achieve an excellent performance

in this skill because it was the most important tool for them to have access when answering the

Pruebas Saber.

5.2.2.3.1 Predicting.

It is necessary to highlight that every session held was composed of activities to develop

the four different skills proposed. However, each session was focused on just one skill for

students to know which skill they were working on. Following are the results that students got in

the final reading comprehension tasks on sessions 1 and 5, which centered specifically in

evaluating the predicting skill.

Table 6

Quantitative analysis predicting skill. Sessions 1 & 5

Statistics	Mean	Median	Mode	Standard Deviation
Session 1	3,3	4	4	1,65
Session 5	4,1	5	5	1,16

Improvement from one session to the other is evident as mean scores increased which indicates that the group of students improved their performance; mode goes along with these results as it raised from 4 to 5, that is the highest possible. Besides standard deviation scores support this progress as dispersion diminish; there was not much variability in session 5 grades as it was in session 1.

Half of the sessions made use of this strategy and as a pre- reading activity. 90% of students used it appropriately, as it is visible in the next excerpt of an intermediate task in session 2.

Figure 32. Session 2 qualitative data analysis intermediate task activity 2 question 1 screenshot

When students finished the session, they made a self-assessment evaluation. Students' perception on their mastery of this strategy increased from a 76% to a 93% as it is illustrated in the following figure.
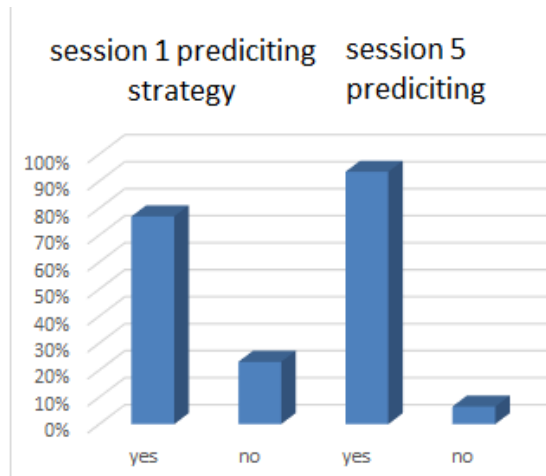
Figure 33. Sessions 1 & 5 Self-Assessment analysis.

These results are supported by the outcomes in the reading inventory at the end of the

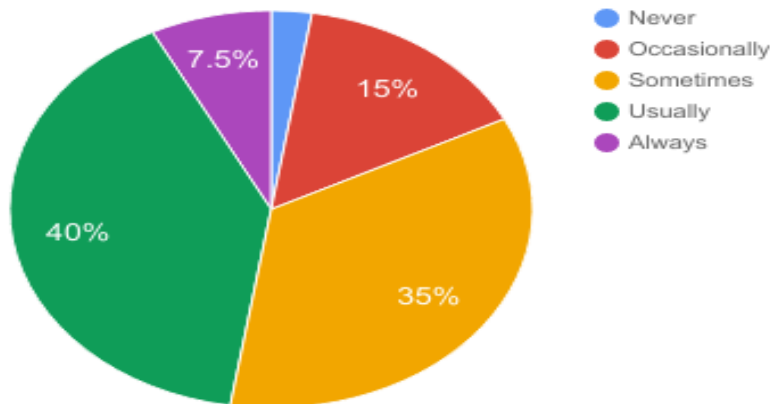project which will be shown below:

Figure 34. Reading inventory Q1.

With regard to statement 1 "I predict what comes afterwards in a text based on the

context and what I already know to better understand the text" three quarter of students felt like

using the strategy for RC success as a pre- reading one.

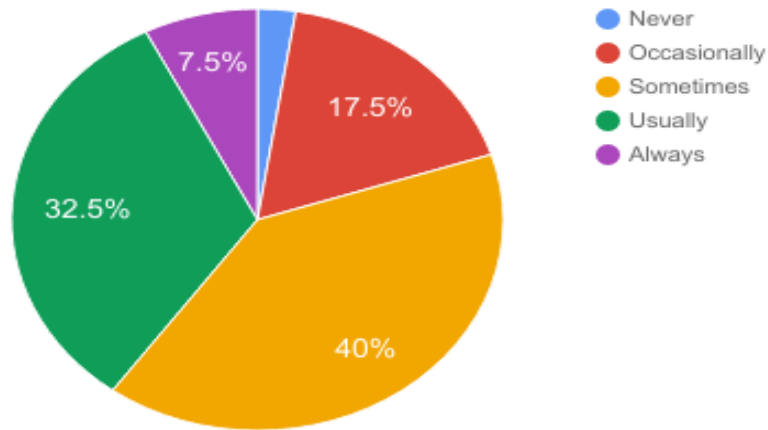Q2. Me detengo periódicamente y modifico mis predicciones basadas en el texto.

Figure 35. Reading Inventory Q2.

With regard to statement 2 "I stop periodically and change my predictions based on the text" results show something similar to the previous one, it seems that students felt like predicting is a good strategy for while reading stage. However, next question showed more certainty of its appropriacy to make expectations about what could happen next in the texts.

Q3. Busco evidencia en el texto para confirmar o descartar mis predicciones.
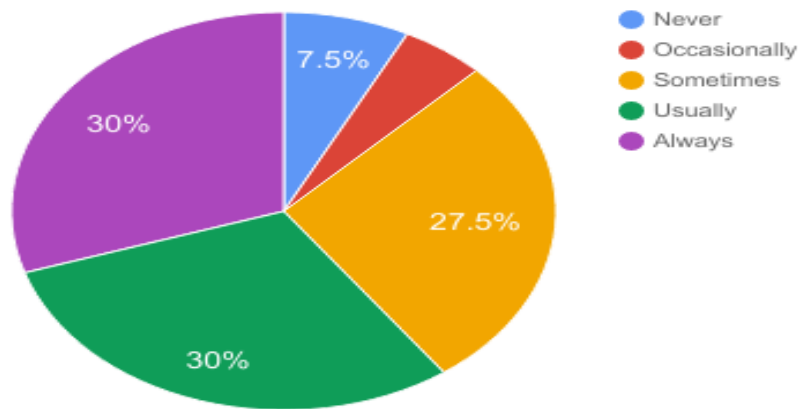
Figure 36. Reading Inventory Q3.

In statement 3 "I look for evidence in the text to confirm or discard my predictions" 30% of students went back to the text and looked for key information to support what they had thought and asserted. It is outstanding that a third part of students recognized they always used predicting as a strategy that endorses what they had answered, with proofs from the text which go along with their certainty that they solved questions with an appropriate response. Other results like 'often' and 'usually' which represents the same percentage of students as the ones who answered 'always' implied that students felt predicting is a confirmatory strategy.

Figure 37. End of the project Survey Q2.

The answers to end of the project survey question 2 confirmed the idea that students used predicting supporting their ideas with what they could read in the text; pictures, dates information of the text.

5.2.2.3.2 Identifying lexical items.

83% of students did not feel confident enough with the vocabulary. More interesting, 74% affirmed to wish to achieve an excellent proficiency in this ability, thus, students were conscious of their lack of vocabulary and wished to increase it.

4. ¿Entiendes estas instrucciones? señala las que si	Write	81%		Download	88%
	Open the link	81%		Watch the video	85%
	Download	77%		Write	83%
a. Paste	Make groups	74%		Open the link	83%
b. Download	Watch the video	67%		Work individually	78%
c. Upload	Work individually	67%		Make groups	73%
d. Choose	Choose	60%		Choose	65%
e. Write	Comment your partner's ideas	58%		Paste	60%
f. Check				Upload	58%
g. Comment your partner's ideas	Paste	49%		Comment your partner's ideas	55%
	Work by pairs	42%		Work by pairs	55%
h. Exchange ideas	Check	37%		Exchange ideas	45%
i. Open the link	Exchange ideas	37%		Check	40%
j. Fill in the chart, diagram, blanks	Upload	35%		Fill in the chart, diagram, blanks	
	Fill in the chart, diagram, blanks	13%			
k. Watch the video	21%				
l. Make groups					
m. Work by pairs					
n. Work individually					

Figure 38. Needs analysis Q4.

Answers to question 4 showed that students recognized some vocabulary items but needed reinforcement for other lexicon. The idea of vocabulary assistance was backed up by the results in the KET pre-test which will be shown later in comparison to the post test results.

In the KET test, part 2 was composed of questions 6 to 10 which corresponded to reading and identifying appropriate vocabulary. Students were tested on their knowledge of vocabulary

Q4 ¿Qué actividades realizas cuando no sabes el significado de una palabra en Inglés?

Initial coding	Focused Coding	Axial Coding
- Look for the meaning of the words in the dictionary or notebook(12)	- Practice questioning	- Reading Comprehension Strategies
- Look for a translator as the last resource to understand the words.(24)	- Identify lexical items	
- Divide the words in parts (1)	- Use of mother tongue	
- Read the whole text or paragraph by paragraph and Infer meaning through context (8)	- Skimming the text	
- Solve the questionnaires(1)		
- Look for synonyms to relate words (3)		
- Finish the reading of the text (1)		

about one topic by using the overall context to help themselves to find the correct answer. Only two of the items have more than 50% students answering right and the total score of this item

was not average. On the other hand, part 6 of the test had questions from 31 to 35 which called

the ability to read and identify appropriate lexical items, and spelling. Students were asked to

produce five words well spelled. Students asserted that one of the benefits they got from this

project was to increase their vocabulary. It was supported by the enhancement in identifying

lexical items, noticeable in the statements in the end of the project survey. Students expressed

strategies they used when they did not know a word like looking for the vocabulary in their

notebooks, dividing the words in parts, and looking for related words like synonyms.

Figure 39. End of the project Survey question 4.

These strategies showed that students became strategic and that it eased their efforts at

recognizing new lexicon. Improvement in this part is demonstrated by results in the post test.

Table 7
Pre- and Post-test. Part 2 and 6

Part 2	Pre- test	Post test
Reading and Identify **appropriate vocabulary**	6. [Key A] 48.5% 7. [Key C] 62.1% 8. [Key G] 77.3% 9. [Key H] 22.7% 10.[Key D] 31.8%	6. [Key A] 67.2% 7. [Key C] 68.7% 8. [Key G] 77.6% 9. [Key H] 37.3% 10.[Key D] 49.3%
	—————————— Average 48.48%	—————————— Average 60.02%
Part 6	31. [Key D] 30.3% 32. [Key C] 36.4%	31. [Key D] 38.8% 32. [Key C] 43.3%
Reading and identify **appropriate lexical items and** **spelling**	33. [Key A] 27.3% 34. [Key B] 43.9% 35. [Key C] 39.4%	33. [Key A] 31.3% 34. [Key B] 41.8% 35. [Key C] 47.8%
	—————————— Average 35.46%	—————————— Average 40.6%

In the first set of questions, just two items were lower than average and 80% of them

were high, and in general comparing these with the pre-test it displays a real advancement (about

12% more). In the second set (questions 31 to 35) improvement is not as outstanding but indeed

there is progress (5% more). This is possibly because these items are prepositions and pronouns, something that is more difficult to deal with, as collocations happen more frequently with them.

5.2.2.3.3 Vocabulary acquisition Awareness.

From the beginning of this research students' first concern was about their lack of vocabulary that leads consequently to comprehension and foreign language proficiency issues as it is showed in figures 40 and 41.

Figure 40. Excerpt of needs analysis Q1. Importance of learning English.

Figure 41. Excerpt of needs analysis Q2.

Lack of vocabulary was confirmed by results of the pre-test in which the average of students' performance was not even a fifty percent and few of the singular items have more than that percentage (items 7 and 8). The average percentage was 48.48% for part 2 and 35.46 % for part 6. Sentences 7 and 8 need more common verbs (stay and took) than recognizing when to use nouns or adjectives like the ones in sentences 9 (back-corner). Problems also happened when choosing the appropriate preposition in questions 31 to 35 as it has been explained before.

Consequently, one of the objectives of this research was to increase students' vocabulary while reading. Chamot (2005) among others (Rubin, 1981; Flavell, 1987; Hacker, 1998; Wenden, 1991) suggests the importance of metacognition in the learning process, as a strategic way to the successful achievement of educational goals. One of the key ideas in metacognition is thinking and learning processes' awareness (Marton & Booth, 2013). Students in this research noticed they acquired vocabulary while developing the activities in the platform and it was evident by their own statements in the end of the project survey.

Figure 42. Excerpt of the End of the project survey.

5.2.2.3.4 New vocabulary acquisition

Nakata (as cited in Mehring, 2015) recognized that students acquire vocabulary through regular repetition for its effectiveness. Mehring (2015) asserted that procedures recommended to include learners spend time frequently to memorize and manipulate vocabulary so as to be learnt. This research proposed three basic steps: looking for vocabulary in digital dictionaries, playing games for reinforcing that vocabulary, and taking a final test in Moodle to consolidate it. These exercises were a previous step to start reading the texts. The first step was settled as a strategy for vocabulary development and it proved to be effective as students asserted in the end of the project survey. They realized the importance and necessity of using material of reference such as translators, dictionaries and even their notebooks for enhancing their learning process and as a way to overcome reading challenges.

Figure 43. Excerpt from end of the project survey. Q4.

In the second step, practicing with the vocabulary in context, games with the lexicon was a means to employ the words that were new and that they looked for previously in the dictionary use part. Some of those games gave scores to the students so they could realize how well they did.

Figure 44. Scores from vocabulary games.

The third step, vocabulary evaluation was a Moodle questionnaire. Results illustrate the evolution of the process during implementation. In the first session grades exemplify students' attainment which was outstanding for the first try.

Table 8

Descriptive Statistics Session 1 to 8

Sessions	Mean	Median	Mode	Standard Deviation
1	3.5	5.0	5.0	1.72
2	3.9	4.58	5.0	1.5
3	3.4	4.5	5.0	1.75
4	4.1	5.0	5.0	1.36
5	4.2	5.0	5.0	1.33
6	4.2	5.0	5.0	1.33
7	3.0	4.0	1.0	1.94
8	4.1	5.0	5.0	1.31

As questionnaires were graded from 1 to 5, being one the lowest and five the highest score, mean and mode showed us that students acquired the vocabulary proposed for the session. Mode tells us that students most frequent grade was 5 (the highest possible) and the average score was a passing grade. However standard deviation is an evidence of the great variety of proficiency in the courses. What was expected is that they improved through the implementation. The next sessions exhibit a positive progress, except for session 7: mode maintains its range (the highest) while the average score increases, an evidence of advance, supported by a reduction in the standard deviation results, which indicates much more homogeneity of students' performance.

The third session results display a setback in students' outcomes, which was not as representative but indicated that vocabulary in this session needed to be worked on much further. Improvement tendency reappears in sessions 4 to 6 in which mean and mode were high, and standard deviation diminished.

Results in session six indicated a declining in students' consistent achievement which may be explained by how close this session was to the end of the school year and by the fact that the vocabulary presented was not as common as the previous one. This seemed to be more conclusive in session 7 results as they declined dramatically and not only homogeneity was at stake but the average grade was surprisingly minimum and the mode points out the lowest score as the most frequent in students' performance for this session. Results rose in the final session in which scores got higher again both in terms of mean and mode. It could have happened because students were motivated by researchers after evaluating the session 7, so, they took it seriously again and demonstrated that they were able to improve as session 8 was the last one.

5.2.2.3.4 Identifying keywords

Identifying keywords is important in the sense that it helps learners to recognize textual structure. Students recognized that strategic reading implied finding out the words or sentences that carry the main or most outstanding idea of the text. This went along with the concept of using contextual clues and other supporting tools (e.g. reading strategies) to facilitate understanding and successful RC. Becoming aware of this was evident in the end of the project survey where students asserted that looking for keywords and making use of the contexts and synonyms were their strategy to deal with matters like understanding the whole text and coping with unknown vocabulary.

Figure 45. Excerpt of the End of the project survey Q2.

In question 2 "what activities do you do before starting to read a text?" about 25% of the students thought of finding key words and understanding unknown vocabulary, so for them this was a necessary pre- reading task which meant they did not face the readings straightforward without planning how to do that.

Initial/Open Coding	Initial coding	Focused Coding	Axial Coding
- Uso de material de consulta como diccionarios, libros e internet (general) - Identificación de **palabras claves** (verbos) para encontrar **tema textual**	Translate (7) Identify key words like verbs or relevant ideas for the theme of the text (3) Check the activity to be done (3)	Students' supporting tools Students' check for understanding Students' scanning and predicting skill	Students' Self-reflections Reading comprehension strategie Vocabulary acquisition
- Reconocimiento de palabras	Use reading strategies like scanning and predicting from the title (18)	Vocabulary acquisition	
- Uso de traductor	None (1)		
- Crear conexiones entre palabras conocidas	Make relationships between vocabulary and theme or real life(4)		
- Escanear - encontrar lo mas importante			
- Revisar el trabajo a realizar y sacar ideas			
- Traducir palabras desconocidas			
- Mirar y relacionar palabras clave			
- Buscar qué contestar en la actividad (pregunta)			
- traducir			
- Realizar las últimas actividades			
- Buscar las palabras claves necesarias			
- Uso de material de consulta (google)			

Figure 46. Excerpt of the End of the project survey. Q.3

To question 3 "What activities do you do when you need to identify key ideas and words in a text?" nearly 50 % of students asserted they make use of reading strategies. Some others claimed they looked for relevant or known vocabulary which informed us about the success in identifying keywords. Recognizing keywords served to learners as a while reading strategy as well.

5.2.2.3.5 Skimming.

Other strategies that showed positive results were the abilities to scan and skim the text, which they were supposed to be the most difficult abilities for students to follow. In this specific case students affirmed at the beginning of the needs analysis survey they wanted to achieve a better RC performance. In the pre-test applied to students, parts 1 and 4 they tested students' ability to understand main ideas and details in longer texts. Table 9 shows a comparison between the details regarding the questions asked and the percentage of students who did right in part 4 where they had to apply their skimming skill.

Table 9

Pre- and Post-test Parts 1 and 4 Understanding main ideas and details in longer texts

PART 1	Pre- test	Post test
	1. [Key B] 80.3%	1. [Key B] 95.5%
Gist understanding of real-world notices. Reading	2. [Key C] 74.2%	2. [Key C] 89.6%
for main message.	3. [Key A] 78.8%	3. [Key A] 95.5%
	4. [Key C] 63.6%	4. [Key C] 79.1%
	5. [Key C] 54.5%	5. [Key C] 86.5%
	_____	_____
	Average 70.28%	Average 89.24%
PART 4	**Pre- test**	**Post test**
	16.[Key A] 74.2%	16.[Key A] 65.2%
	17.[Key C] 40.9%	17.[Key C]44.8%
Reading for detailed understanding and main	18.[Key B] 71.2%	18.[Key B] 62.7%
idea(s).	19.[Key B] 50%	19.[Key B] 60.6%
	20.[Key B] 31.8%	20.[Key B] 29.9%
	21.[Key A] 45.5%	21.[Key A] 32.8%
	22.[Key C] 62.1%	22.[Key C] 65.7%
	23.[Key C] 27.3%	23.[Key C] 46.3%
	_____	_____
	Average 50.37%	Average 51%

Unfortunately, this strategy did not have as much improvement as the new acquisition of vocabulary or the use of the predicting strategy. Students in general improved just a little but there was one of the groups which had great results on their individual report. In part 1 which showed the results that students got when tested on their ability to understand real-world notices and reading for main messages a big effort was not required because that part of the test was very simple for students' proficiency level; improvement is evidenced as researchers expected it. In

addition, in sessions 3 and 7, where this strategy was highlighted, students effectively activated

schemata and their predictions were right, guessing what the texts themes were about.

The following are the results that students got in the RC final task from sessions 3 and 7

which were designed to develop skimming strategy.

Table 10

Session 3 & 7 Reading Comprehension Final Task Results

Statistics	Mean	Median	Mode	Standard Deviation
Session 3	3,1	3,5	5	1,77
Session 7	3,4	4	5	1,66

Descriptive Statistics in this case confirmed that there was improvement in students'

performance. While in both sessions the most repeated score was the highest (five) the average

grade increased from one session to the other (from 3,1 to 3,4). Even though this data was not

that outstanding, standard deviation demonstrated that dispersion of this performance diminished

(from 1.77 to 1,66) which reinforced the idea that most of the students improved their RC ability.

After implementing these sessions, students answered their regular self-assessment. Students'

perception on their commandment of this strategy increased from a 92.59% to a 100% in the

results of the two sessions self-assessment as it is illustrated in figure 47.
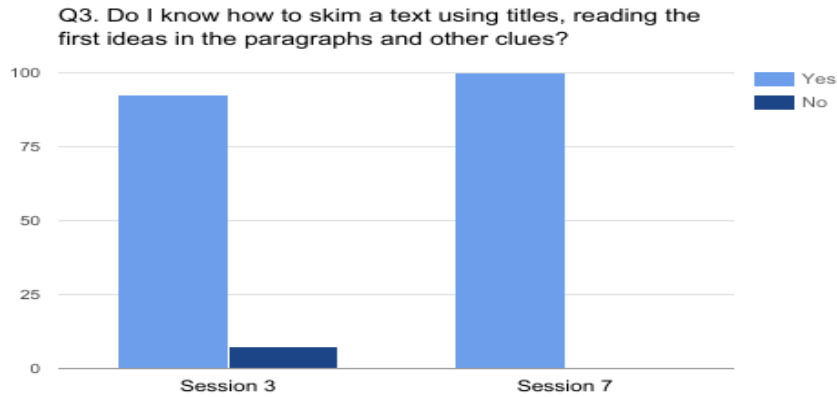
Figure 47. Self -assessment sessions 3 & 7
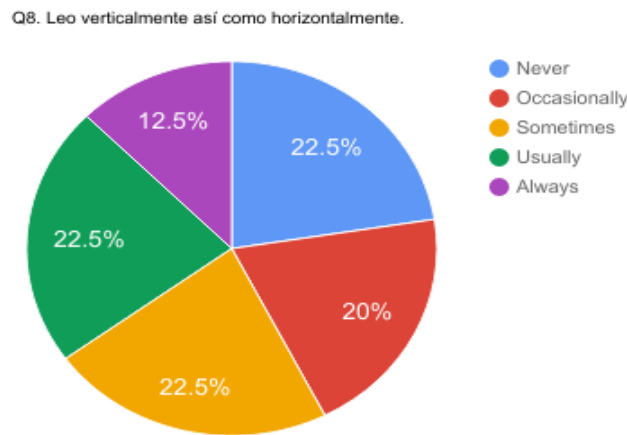
Figure 48. Reading Strategies inventory. Q8. Leo verticalmente así como horizontalmente

Figure 48 shows the percentages of students who read texts down and across, therefore, the options never, sometimes and usually were at the same level as the most answered. There is evidence that supports the post test results regarding skimming skill mentioned before, as percentages are divided almost equally in three options (22.5% =never, 20%=occasionally, 22.5%=sometimes, 22.5%= usually). Results showed that there was no certainty in the use of skimming strategy. This is confirmed by the lowest percentage (12.5%) for "always" option. It suggested that students did not take it as a way to deal with the texts.
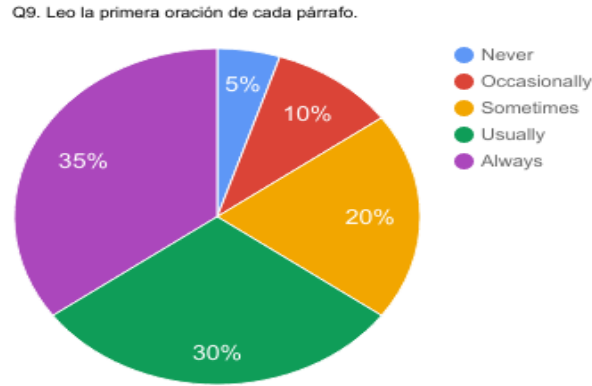
Figure 49. Reading Strategies Inventory. Q9. Leo la primera oración de cada párrafo

Figure 49 shows how often students read the first sentence of each paragraph to understand regarding skimming strategy. It is evidenced that as it is the easiest step, students feel comfortable applying it, in this case, 35% of them always skims the first sentence, 30% usually do it and 20% applied it sometimes. These results were expected from the researchers and they might indicate that students are still in a first step to develop their skimming reading strategy deeper.

Figure 50. Reading Strategies Inventory. Q 10. Not reading complete sentences.

Figure 50 shows the results of question 10 in the reading strategies inventory. A score of 28% in the option "sometimes" and 25.6% in the option "usually" allowed us to see that they applied the strategy, there was just 12,8% of students who never did the action but this was a minimum percentage comparing the rest of the options. Finally, figure 39 End of the project survey. Q4, showed that participants were aware of the different reading strategies learnt. In addition, they used them to meet the comprehension of the texts proposed on each session.

5.2.2.3.6 Scanning the text.

A closer look at the data gathered regarding students' scanning skill showed that it was the most relevant strategy due to the development of new vocabulary at the beginning of each session. In other words, this strategy was the one students could develop the most during the implementation probably because it was linked directly to the vocabulary activities proposed on each session. Figure 51 shows the direct link that students found between getting new vocabulary and scanning skill as well as the predicting skill.

Q3 ¿Qué actividades realizas cuando necesitas identificar las ideas y palabras claves de un texto?

Initial coding	Focused Coding	Axial Coding
Translate (7)	Students' supporting tools	Students' Self-reflections
Identify key words like verbs or relevant ideas for the theme of the text (3)	Students' check for understanding	Reading comprehension strategies
Check the activity to be done (3)	Students' scanning and predicting skill	Vocabulary acquisition
Use reading strategies like scanning and predicting from the title (.18)	Vocabulary acquisition	
None (1)		
Make relationships between vocabulary and theme or real life(4)		

Figure 51. Excerpt of End of the project survey. Q 3

Figure 52 below shows the improvement that students perceived they got with this

strategy. However, the difference between results was minimal compared with other strategies. In session 3, 83% of students comprehended and used the skill while in session 7 the result increased to 100% of students implementing the skill.
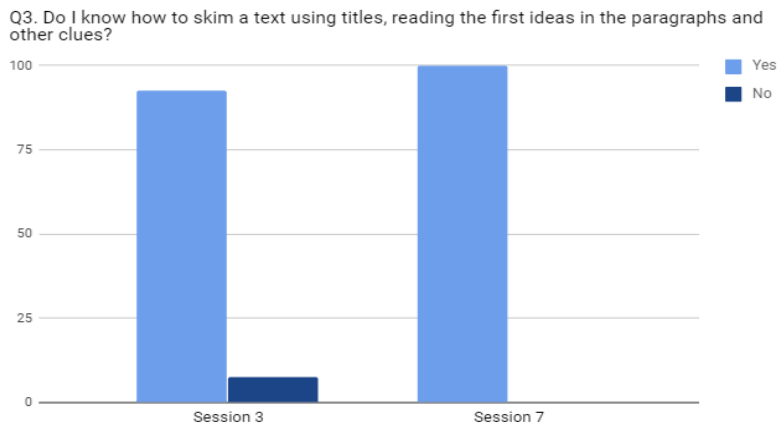
Figure 52. Skimming self-assessment results

Figure 52 shows the little difference between percentages, even though, students improved this skill and this result were explained again due to the important link between skimming and scanning as they are two skills which need to be developed at the same time. Along similar lines the reading strategies inventory bear out the results shown before as follows:
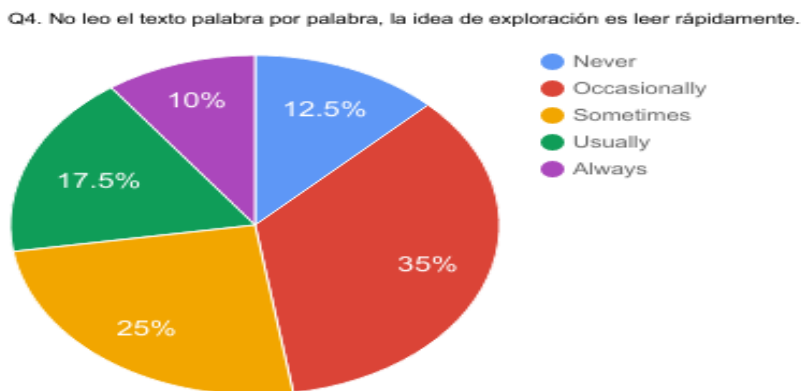
Figure 53. Reading Strategies Inventory Q4. Scanning Strategy

Results from question four shows that the options "occasionally, sometimes and usually were the most used for students, and it was surprising to see that 65% of students were applying the strategy regularly and almost always and just 12.5% never applied it and it was, good to see that 35% of students were trying to keep on exploring the texts as it overcame researchers' expectations.
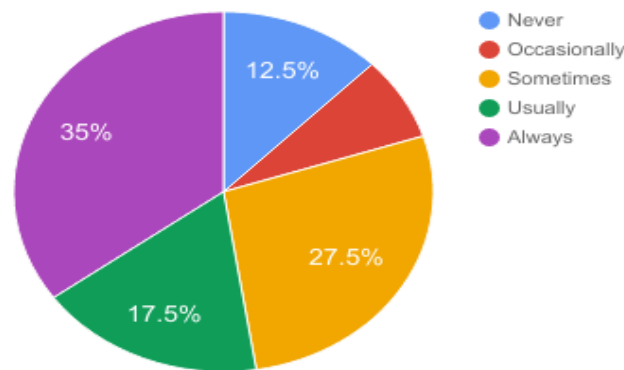
Figure 54. Reading Strategies inventory. Q5. Scanning Strategy

Figure 54 shows that 80% of students applied this strategy just, 12.55% of students did not do it and a little 7.5% did it occasionally. These percentages can be interpreted from the steps expressed in the statement. Results told us that learners recognized what procedure was important to follow in order to read quickly and find specific information in a text.

Q6. Encuentro una palabra en particular, la idea o la información buscando números, símbolos y palabras en un texto.

- Never
- Occasionally
- Sometimes
- Usually
- Always

12.5%
27.5%
50%
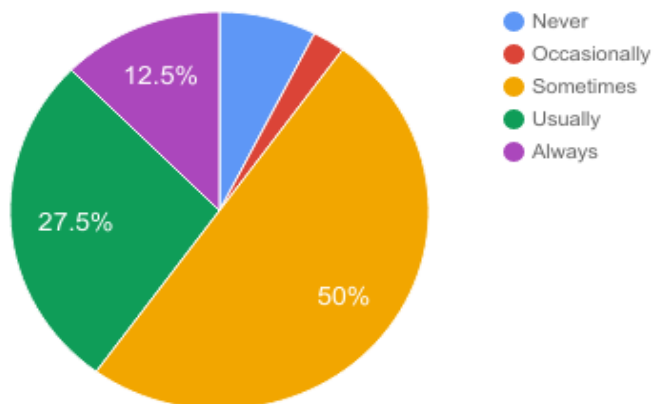
Figure 55. Reading Strategies Inventory. Q 6 Scanning Strategy

Figure 55 above shows us students applied scanning as 90% of students were applying another step to develop scanning, and just 10% of students never applied it or did it occasionally, again, these results corroborate their self-assessment answers.

Q7. Me pregunto qué quiero obtener del texto.

- Never
- Occasionally
- Sometimes
- Usually
- Always

15%
5%
22.5%
30%
27.5%
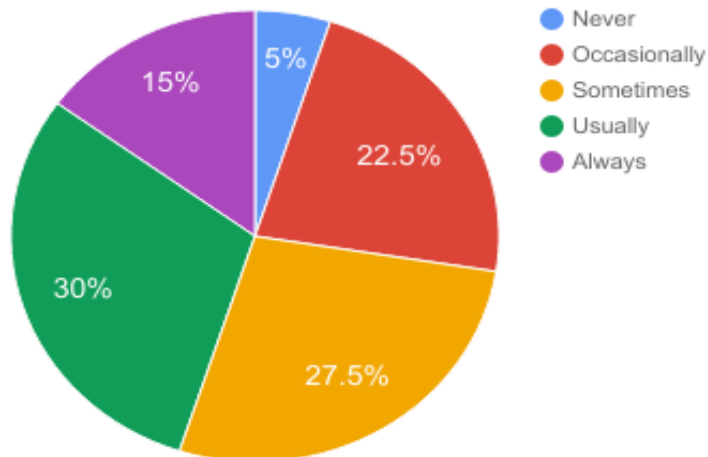
Figure 56. Reading Strategies Inventory. Q7. Scanning Strategy

Finally, Figure 56 above, showed how students could develop the scanning strategy. The statement "I wonder what I want to obtain from reading the text" describes not only that students applied the scanning strategy but also, they linked it with the questioning strategy. Therefore, 72.5% of students applied the strategy while 22.5% of them did it occasionally and just 5% of students did not do it and this last was very minimum percentage figure.

5.2.2.3.7 Practicing questioning and the ability to read and identify appropriate answers.

According to the activities in the platform teachers concentrated on reinforcing students answer with the appropriate response. Consequently, its effectiveness during the sessions will be discussed further in the different sessions responses along with other strategies. This was one of the main parts and challenges to develop with students due to the results they got in the pretest, it was decided to reinforce students' skill to read and identify appropriate responses.

Table 11

Pre- and Post-test. Part 3

PART 3	Pre- test	Post test
	11.[Key C] 51.5%	11.[Key C] 56.1%
Reading and identifying appropriate	12.[Key A] 54.5%	12.[Key A] 46.3%
response.	13.[Key B] 21.2%	13.[Key B] 25.4%
	14.[Key A] 34.8%	14.[Key A] 31.3%
	15.[Key C] 27.3%	15.[Key C] 35.8%
	_____	_____
	Average 37.86%	Average 38.98%

In Part 3 of the test, students were tested on their ability to understand the language of

routines and daily life. The following results will show a comparison between the results students got in the pretest and the post-test considering students' ability to identify appropriate responses.

In the Pre- and post-test. Q11 part 3, the key answer in this question was "C", the results do not show a significant improvement in this aspect between the pretest and posttest, students got an improvement of 4,6%. However, it can be seen that the percentage of students who answered correctly in the post-test increased 24,7% (from 31,8% to 56,1%).

Regarding the pre- and post-test, Q12 part 3, the key answer in this question was "A", the results do not show improvement in this aspect between the pretest and posttest, it can be seen that the percentage of students who answered correctly in the pre-test increased compared to the post test which allowed us to be wondered about their selection in this question. Maybe, students were confused because this question required an inferential level and they are still in the first process of acquiring strategies to understand a text.

Then, in the Pre- and post-test. Q13 part 3, the key answer in this question was "B", the results show improvement in this aspect between the pretest and posttest, it can be seen that the percentage of students who answered correctly in the pre-test increased in the post test however, it was expected to find more students answering correctly as they have already worked in some reading strategies which could help them to understand better a text and answer correctly.

After that, in the pre- and post-test. Q14. Part 3, the key answer in this question was "A", the results do not show improvement in this aspect between the pretest and posttest, it can be seen that the percentage of students who answered correctly in the pre-test was just 34,8% and it went down to 31,3% in the post test, it was expected to find more students answering correctly as

in the implementation of the project the results were different and the process in general showed improvement in the students RC skills.

Regarding the pre- and post-test. Q15. Part 3, the key answer in this question was "C", the results show improvement in this aspect between the pretest and posttest, it can be seen that the percentage of students who answered correctly in the pre-test was just 27,3% and it went down to 35,8% in the post test, it was expected to find more students answering correctly but it also shows the low proficiency level that students had to answer the test.

Then, in table 11, the improvement that students got after applying the post test at the end of the implementation of the project is evidenced. While in the pre-test they identified appropriately just 37.86% of the answers, in the post test they improved and got the 38.98% of answers identified appropriately.

Although, students had the opportunity to interact with questioning every time they went into the platform, there was one session (session 4) designed to tell them what this reading strategy was about for them to develop it.
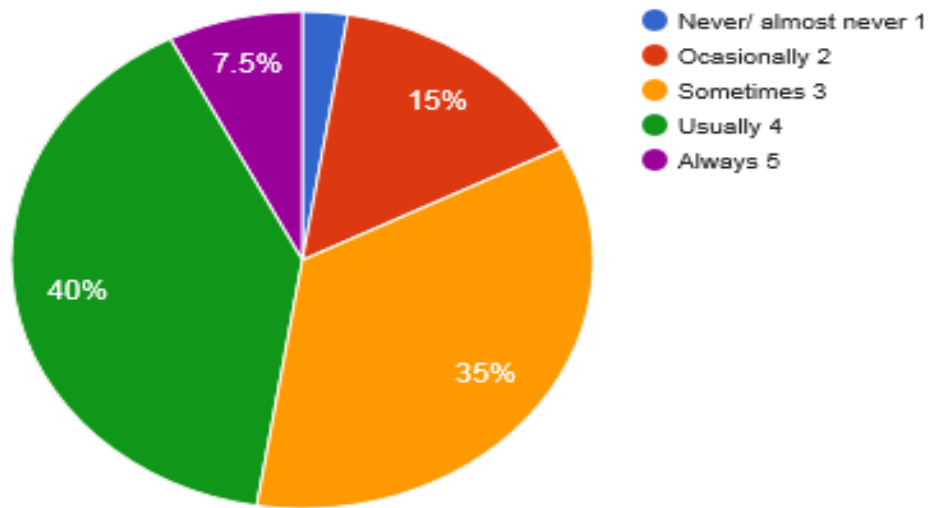
Figure 57. Reading Strategies Inventory Question 11

Figure 57 evidenced that after the implementation of the project students improved their questioning skill. To the statement of the reading strategies inventory "I ask for information before, while and after reading to know a part of the story I do not understand" a 40% of students used it sometimes and a 35 % usually. These results demonstrated that students made use of the asking and answering questions strategy.

Figure 58. Students' answers "End of the project survey". Question 6

Finally, according to the "End of the project" survey, question 6. "Did you answer the questionnaires with the appropriate answers according to each suggested text and taking into account that the general context will help you find the correct answer?" more than 80% of students were sure to answer the overall questions with the appropriate response, there was one student who answered negatively because he presented difficulties to get familiar with the platform and his English level was very low, he was new at the school and the English class was one of the difficulties he had during the whole academic year.

Here it is relevant to inform about some negative aspects of researchers' management of the virtual platform. Students evidenced some confusions when solving the questionnaires created in Moodle because sometimes they knew the words they should answer but the answers were created in Moodle using capital letters at the beginning or with small letters and spaces, so

the platform did not accept any option just one and it was a mistake that researchers faced. These problems probably occurred because researchers were not familiar with all the options to create a questionnaire in Moodle as they were managing this platform for the first time.

On the other hand, students did not give up, they tried again when they did not find understandable facts until they detected the appropriate response. For 80% of students, answers were easy to identify in the texts by making scanning and skimming, for them it was just a matter of using logic and check the overall information provided in the text to understand. Most of the students also used the reading comprehension strategies learned to understand better the text and answer with the correct responses.

And unfortunately, there were some students who used a translator to avoid waste of time and solve quickly the activities just because of their short time at home to solve all subjects' homework and also because this is still the preferred tool used by them.

Q 12. Encuentro las respuestas "allí" en el texto (por ejemplo, detalles, palabras clave, idea principal, concepto de base) con facilidad

- Never/Almost never
- Occasionally
- Sometimes
- Usually
- Always

15%
10%
25%
45%
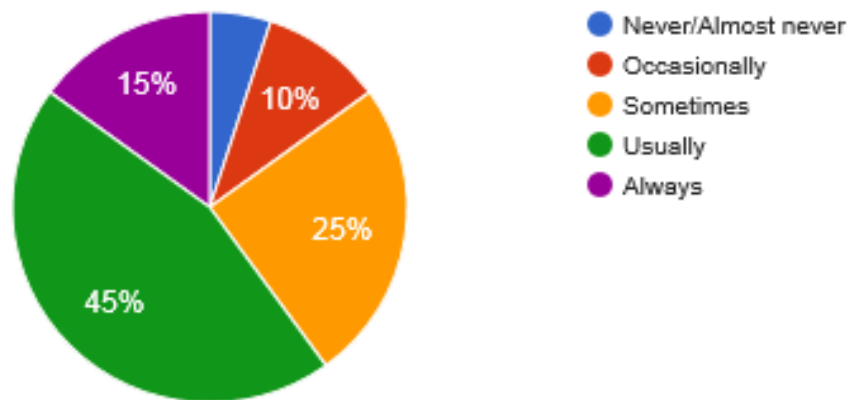
Figure 59. Reading Strategies Inventory Question 12

Along similar lines, the figure 59. Shows us what was expected from students. To question 12 which asked about finding answers in the text easily including details, keywords or

main ideas, just 2 people answered "never". It revealed that most of the students made use of the

strategy. After that, the most relevant point was to see that 45% found the answers usually and

the 15% got them always, that indicated us that students were approaching the skills we proposed

at the beginning of this project.
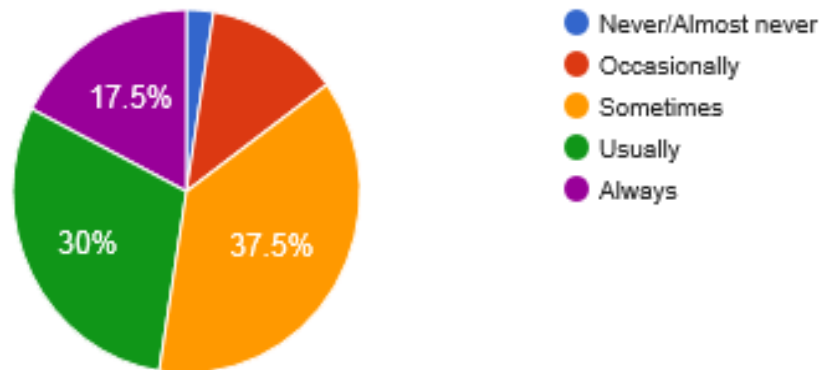
Figure 60. Reading Inventory Question 13

In the figure 60, it is evidenced that students have not gotten familiar with inferring

questions, but they showed some advances on it. It is clear on the figure that they were

sometimes thinking and using context clues to infer what happened on the texts proposed. It was

remarkable for the purposes of this study to see 30% of students who answered that they usually

did it, as well as 37.5% who said that they did it sometimes.
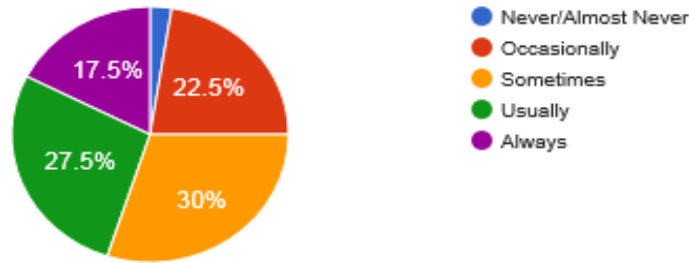
Figure 61. Reading Strategies Inventory. Questioning. Q14

Figure 61, shows how frequently students asked for information using different question words such as what, who, where, when how and why before, during and after reading the texts proposed. As they were in the last two grades at school, and these question words were the ones that students use and teachers use frequently at English classes, it was expected to see better results such as more people answering "Usually" or maybe "Always". However, it was found that students still needed more practice using the mentioned words, with different kinds of texts. Finally, students' answers in the End of the project survey, confirmed that they improved to answer with the appropriate response, however, they still need more practice to develop the four strategies proposed as it could be seen in the figure below.
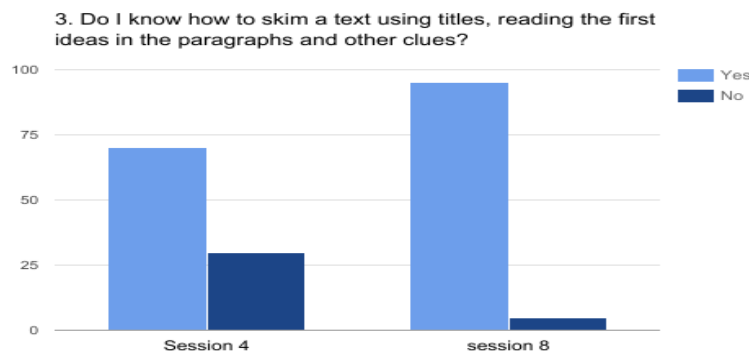
Figure 62. Self-assessment Q3. Questioning strategy

The self-assessment confirmed the evolution they got by using this questioning strategy. While in session 4 just 70% of students declared they used this strategy, in session 8 it increased to 95% of students stating so.

5.2.3 Core category (Development of reading comprehension strategies)

After the results provided on the sub category 4, it was decided to get all together in a core category called "Development of reading comprehension strategies" which allowed to have a detailed vision of students RC process as well as the extent they could identify appropriate responses and appropriate lexical items in the RC exercises provided through the DLOs. Students' development of reading comprehension strategies included some aspects emerged from the results of this research which were joined together in a group called "My tools kit to get a better reading comprehension. Basically, it describes the tools used by students to get a better reading comprehension in English after this experience. Those tools were comprised in three groups related to students' actions which were: My impressions, my digital classroom and my master plan to understand a text.

Chapter 6. Conclusions and Pedagogical Implications

6.1 Introduction

In the following excerpt conclusions are the result of the systematic analysis of different data that has been brought together so as to make a comprehensible and valid corpus of information that will be useful for teachers and students developing self-directed learning abilities. Here, high school students of a public school participated in a blended course for improving RC abilities in English. Outcomes might be valuable for the educational community since they responded to a necessity that is common to many institutions and learners, namely few hours of English classes and a need to improve reading comprehension as a long-life ability.

To do so this section: shows the relationship and comparison of this study results and those from existing literature, exposes the strengths and the importance of this study's results, the limitations the research presented, and possible further issues to be dealt with the facts encountered.

6.2 Comparison with previous studies

The present study reaffirms other research conclusions, namely the necessity of explicit reading strategies instruction to enhance RC in second language (Enciso-Uribe, 2015) and the importance to afford students with opportunities and tasks to develop and reinforce the strategies studied (Montalvo, 2013; Correa, 2013).

Moreover, this study demonstrates that reading comprehension strategies are suitable actions to deal with specific RC issues, in this case identifying appropriate response in reading comprehension tasks. Besides RC strategies ease vocabulary acquisition if learners develop attitudes of self-assessment.

In contrast to other researches' tools used (e.g. Montalvo's blogs, Correa's reading tasks) learners in this investigation worked well with DLOs and the application served to the aim proposed. Students felt stimulated with the tasks in the DLOs from the beginning, and their performance in the surveys (self-assessment checklists, and end of the project survey) as well as tests results demonstrate they improved their reading comprehension performance. They learnt to recognize explicit information in a text, and hence, they could answer questions with the appropriate response on most of the reading comprehension questionnaires. DLOs contributed students to improve their reading comprehension in terms of identifying suitable responses and putting vocabulary into practice.

6.3 Limitations

Given the fact that in this research digital learning objects were developed in Moodle and that manipulating this LMS required some knowledge from the teachers'/researchers' part, it was necessary to learn before, during and after the implementation how to manage the Moodle platform as well as training students to know how it worked.

In addition, some issues were detected during the training sessions and implementation phase: some learners stated that they responded correctly to some exercises but the platform did not accept their answers because the way it was created did not allow to open answers but restrictive ones (e.g. capital letters at the beginning of the words, spaces with multiple word answer and the like). This happened in 2 sessions, however, it was solved and maybe the results of these 2 sessions could be better if researchers had taken into account that technical issue.

Besides, since it is a free version for public schools the platform collapsed sometimes, suffered changes or stopped working, which delayed students' performance on it and made them

feel uncomfortable, so at the end of the course learners suggested that teachers should implement the tool in a different platform and increase time of implementation.

Researchers found the LMS well-suited but thought it should be better to have a paid platform that guarantees few if not any shortcomings. Advantages found include the possibility to incorporate DLOs with different applications like videos, online games, readings, among others which made it more attractive and interactive, while it also has its own affordances like the possibility to build questionnaires.

6.4 Further Research

Further research in the application of the reading strategies proposed in this investigation is necessary, and other reading strategies could be included to reinforce students RC such as paraphrase, summarize, and make graphic organizers. Having a larger time span of implementation would be more productive to observe students' progress in this ability. More sessions would also help students after the training to grasp new strategies and certainly would help them become more autonomous in their learning process.

On the other hand, applying these strategies with a group of younger learners using DLO would also be enlightening because this study fulfilled this question with high school students that had already developed a sense of independent work. It would be useful to analyze how this would help students from middle or even primary school to become self-directed learners and give them tools to face skills they would be starting to work out.

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Appendices

Appendix A. Principal of the school consent letter

DEFINING AND IMPLEMENTING STRATEGIES TO FOSTER SELF-DIRECTED LANGUAGE LEARNING RESEARCH

PROJECT

Bogotá, D. C. Marzo 26 de 2015
Colegio Veintiun Angeles
Sr. Edgar Velasquez
Rector
Apreciado Señor:
Actualmente las docentes XXXXX del área de Humanidades de la jornada tarde estamos realizando una investigación titulada "**Improving second language reading strategies in English classes, in senior high school students through a LMS.**", dirigida a estudiantes de media del colegio Veintiun Angeles, la cual intenta contribuir y enriquecer los procesos de aprendizaje de la lengua extranjera y al mismo tiempo reorientar las prácticas docentes en la materia de inglés de bachillerato.

El objetivo de este estudio es crear espacios donde los estudiantes interactúen utilizando el idioma y de esta manera optimizar los tiempos de clase a la vez que mejoran su nivel en la segunda lengua. Mejorar las estrategias de lectura utilizando herramientas informáticas para el aprendizaje autodirigido. Implementar la metodología basada en el aprendizaje autodirigido que motive a los estudiantes a desarrollar su autoeficacia y establecer metas de aprendizaje en actividades presenciales y blended. Cabe anotar que dicha investigación hace parte de nuestro trabajo de grado de la Maestría en Didáctica del Inglés para el Aprendizaje Auto-Dirigido de la Universidad de La Sabana, estudios que estamos llevando a cabo gracias al apoyo de Secretaría de Educación de Bogotá.

Por lo anterior, comedidamente solicitamos su consentimiento y colaboración para realizar nuestra propuesta de investigación, que se llevará a cabo durante el presente año. Esto implica recolectar datos y analizar los resultados, por lo cual debemos tener acceso a los proyectos escritos de los estudiantes de décimo y once y filmar algunas clases con el fin de conocer y analizar el proceso de lectura académica.
Igualmente, a los participantes se les garantizará el uso de nombres ficticios para mantener su identidad en el anonimato, así como estricta confidencialidad con la información que recolectemos.
 Agradecemos de antemano su valioso aporte para llevar a buen término nuestra investigación y generar cambios positivos en la enseñanza-aprendizaje del Inglés en esta institución.
Atentamente,

XXXXXX   XXXXX

Firma: _____   Firma: _____

Appendix B. Parents' informed consent

DEFINING AND IMPLEMENTING STRATEGIES TO FOSTER SELF-DIRECTED LANGUAGE LEARNING RESEARCH PROJECT

Parents' consent form

Bogotá, Marzo 26 de 2015

Para: _____

Mi nombre es XXXXXXX, soy la docente de inglés de su hijo (a). A lo largo de las últimas clases de Inglés y como sugerencia de los estudiantes, he podido evidenciar la necesidad de reforzar las habilidades comunicativas en Inglés.

Teniendo en cuenta que debido a la globalización y a las necesidades del mundo actual, tenemos en el colegio un gran interés en proporcionar a los estudiantes las herramientas necesarias para que sean capaces de comunicarse efectivamente en inglés.

Para tal fin, tengo pensado implementar desde las clases de inglés y una plataforma virtual, una serie de actividades que promuevan el desarrollo y uso de este segundo idioma. En dichas actividades, que se realizarán tanto en casa como en clase, los estudiantes leerán textos cortos y sencillos y deberán resolver ejercicios que les permitan mejorar sus estrategias de lectura en Inglés.

De igual manera, este material servirá de apoyo para mi proyecto de grado Maestría en Didáctica del Inglés para el Aprendizaje Auto-Dirigido de la Universidad de La Sabana.

Durante las actividades, recogeré información en forma de grabaciones en video, escritos de los estudiantes y notas sobre observaciones de algunas actividades. Me gustaría contar con su aprobación o permiso para utilizar la información recolectada durante estos espacios, en los cuales aparecerá su hijo (a) _____. Al estudiante se le garantizará el uso de nombres ficticios para mantener su identidad en el anonimato.

Cabe anotar, que esta idea ha sido previamente apoyada por el señor Edgar Velásquez, rector y usted podrá tener acceso a mis notas de campo, grabaciones o a su análisis en cualquier momento que lo desee o crea conveniente.

Agradezco su atención y en espera de su autorización para llevar a cabo este proyecto,

Atentamente,

XXXXXXX

Firma: _____

Docente de Inglés

Colegio Veintiun Angeles

Nombre: _____

Autorizo: Si _____ No _____

DEFINING AND IMPLEMENTING STRATEGIES TO FOSTER SELF-DIRECTED LANGUAGE LEARNING RESEARCH PROJECT

Parents' consent form

Bogotá, Marzo 26 de 2015

Para: _____

Mi nombre es XXXXX, soy la docente de inglés de su hijo (a). A lo largo de las últimas clases de Inglés y como sugerencia de los estudiantes, he podido evidenciar la necesidad de reforzar las habilidades comunicativas en Inglés.

Teniendo en cuenta que debido a la globalización y a las necesidades del mundo actual, tenemos en el colegio un gran interés en proporcionar a los estudiantes las herramientas necesarias para que sean capaces de comunicarse efectivamente en inglés.

 Para tal fin, tengo pensado implementar desde las clases de inglés y una plataforma virtual, una serie de actividades que promuevan el desarrollo y uso de este segundo idioma. En dichas actividades, que se realizarán tanto en casa como en clase, los estudiantes leerán textos cortos y sencillos y deberán resolver ejercicios que les permitan mejorar sus estrategias de lectura en Inglés.

 De igual manera, este material servirá de apoyo para mi proyecto de grado Maestría en Didáctica del Inglés para el Aprendizaje Auto-Dirigido de la Universidad de La Sabana.

Durante las actividades, recogeré información en forma de grabaciones en video, escritos de los estudiantes y notas sobre observaciones de algunas actividades. Me gustaría contar con su aprobación o permiso para utilizar la información recolectada durante estos espacios, en los cuales aparecerá su hijo (a) _____. Al estudiante se le garantizará el uso de nombres ficticios para mantener su identidad en el anonimato.

 Cabe anotar, que esta idea ha sido previamente apoyada por el señor Edgar Velásquez, rector y usted podrá tener acceso a mis notas de campo, grabaciones o a su análisis en cualquier momento que lo desee o crea conveniente.

 Agradezco su atención y en espera de su autorización para llevar a cabo este proyecto,

 Atentamente,

XXXXXX

Firma: _____

Docente de Inglés

Colegio Veintiun Angeles

Nombre: _____

Autorizo: Si _____   No _____

Appendix C. Students' consent letter

DEFINING AND IMPLEMENTING STRATEGIES TO FOSTER SELF-DIRECTED LANGUAGE LEARNING RESEARCH

PROJECT

CONSENTIMIENTO INFORMADO PARA PARTICIPAR EN UN ESTUDIO DE INVESTIGACIÓN

Bogotá Marzo 26 de 2015

Colegio Ventiún Ángeles

Media fortalecida

Estudiantes décimo y once

Apreciados estudiantes:

Actualmente las docentes XXXXX y XXXXX del área de Humanidades de la jornada tarde estamos realizando una investigación titulada "**Improving second language reading strategies in English classes, in senior high school students through a LMS.**",Este estudio busca crear espacios donde los estudiantes interactúen utilizando el idioma y de esta manera optimizar los tiempos de clase a la vez que mejoran su nivel en la segunda lengua. Mejorar las estrategias de lectura utilizando herramientas informáticas para el aprendizaje autodirigido. Implementar la metodología basada en el aprendizaje autodirigido que motive a los estudiantes a desarrollar su autoeficacia y establecer metas de aprendizaje en actividades presenciales y blended. Cabe anotar que dicha investigación hace parte de nuestro trabajo de grado de la Maestría en Didáctica del Inglés para el Aprendizaje Auto-Dirigido de la Universidad de La Sabana.

Por lo anterior, comedidamente solicitamos su consentimiento y colaboración como participante de nuestra propuesta de investigación, que se llevará a cabo durante el presente año. Esto implica la planeación e implementación de actividades en clase de inglés, y recolección de datos durante 10 semanas en las cuales ustedes responderán dos pruebas, una de ingreso y otra de salida para evaluar su nivel de Inglés al final de la investigación, los cuales no tendrán incidencia en las notas de clase. Además, tendrán la oportunidad de experimentar unas estrategias nuevas de aprendizaje que les permitirá adaptarse a las nuevas exigencias de nuestra actual sociedad.

Igualmente, se les garantizará el uso de seudónimos para mantener su identidad en el anonimato en todas las publicaciones que la investigación origine. Si usted firma la carta de consentimiento acepta voluntariamente participar del proyecto de investigación. Así mismo, usted puede decidir rehusarse a responder, participar, o abandonar el proyecto. Su participación voluntaria será de gran ayuda para llevar a cabo este proyecto de manera exitosa.

Agradecemos de antemano su valioso aporte para llevar a buen término esta investigación y de esta manera poderle orientar a desarrollar un mejor proceso frente a su aprendizaje del Inglés.

 Acepto participar   Nombre _____

Atentamente,

XXXXXX   XXXXXXX

Firma: _____   Firma: _____

Appendix D. Needs analysis questionnaire

NEEDS ANALYSIS QUESTIONNAIRE 2015

Teachers: XXXXXX

Name: _____ **Grade:** _____

Responde las siguientes preguntas marcando una X en la casilla que consideres pertinente a tu respuesta

Questions	*Yes	*No
1. ¿Piensas que es importante aprender Inglés? ¿Qué te gustaría aprender en clase de inglés? _____		
2. ¿Se te facilita expresar ideas en Inglés? Por qué? _____ _____		
3. ¿Entiendes cuando tu profesor habla en inglés?		
4. ¿Entiendes estas instrucciones? señala las que si a. Paste b. Download c. Upload d. Choose e. Write f. Check g. Comment your partner's ideas h. Exchange ideas i. Open the link j. Fill in the chart, diagram, blanks k. Watch the video l. Make groups m. Work by pairs n. Work individually		
5. ¿Le dedicas tiempo a tu aprendizaje de Inglès afuera del aula?		
6. ¿Tienes conexión a internet en casa o sabes cómo navegar en internet?		
7. ¿ Tienes experiencia con cursos virtuales para aprender inglés? ¿Cómo fue esa experiencia? _____ _____ _____		
8. ¿Has hecho ejercicios de inglés en línea(internet)?		

9. ¿Te has unido a una red social últimamente? ¿Cuál?		

10. ¿Cuanto tiempo te conectas con las redes sociales?Puedes responder más de una si coinciden con tus hábitos.
    a.   No me conecto
    b.   1h a 2h
    c.   3h a 5h
    d.   5h a 10h
    e.   Todo el día
    f.   Fines de semana
    g.   En la noche
    h.   Todos los días
    i.   En la mañana
    j. Otro ¿Cual? _____		

11. Por favor dinos cómo te sientes en cada uno de los siguientes aspectos de tu nivel de inglés en este momento (**ahora**) y qué te gustaría mejorar cuando haya finalizado el año (**futuro**) en una escala del 1 al cinco donde:

          1   2   3   4   5
mal/   aceptable   / bien / bueno /excelente

	ahora	**futuro**
(a) Tu comprensiòn de lectura	....	....
(b) Tu fluidez y seguridad al hablar	....	....
(c) El entender a otros hablantes	....	
(d) Tu precisión cuando escribes	....	....
(e) El vocabulario que has adquirido	....	....

12. Comentarios adicionales

_____

_____

_____

_____

Appendix E. Pruebas Saber (Entrance English test)

Part 4

Questions 21-27

Read the article about a young man and woman who lost a ring.
Are sentences 21-27 'Right' (A) or 'Wrong' (B)?
If there is not enough information to answer 'Right' (A) or 'Wrong' (B), choose 'Doesn't say' (C).

For questions 21-27, mark A, B or C on your answer sheet.

THE RING AND THE FISH

Thomas and Inger, who live in Sweden, are the happiest couple in the world. Two years ago, they were on a boat a few kilometres from the beach. Thomas asked Inger to marry him and he gave her a gold ring. He wanted to put the ring on Inger's finger, but he dropped it and it fell into the sea. They were sure the ring was lost for ever.

That is, until last week, when Mr Carlsson visited them. He has a fish shop and he found the ring in a large fish which he was cutting up for one of his customers. The fish thought the ring was something to eat! Mr Carlsson knew that the ring belonged to Thomas and Inger because inside the ring there were some words. They were, 'To Inger, All my love, Thomas'. And so Mr Carlsson gave the ring back to them.

Inger now has two rings. When they lost the first one, Thomas bought Inger another one. But they think the one the fish ate is the best one.

Example:

0   Thomas and Inger's home is in Sweden.

   A   Right   B   Wrong   C   Doesn't say   *Answer:*

21   Thomas asked Inger to marry him when they were on a boat.

   A   Right   B   Wrong   C   Doesn't say

22   Thomas put the gold ring on Inger's finger.

   A   Right   B   Wrong   C   Doesn't say

23   They returned from their boat trip without the ring.

   A   Right   B   Wrong   C   Doesn't say

24   Mr Carlsson often visited Thomas and Inger.

   A   Right   B   Wrong   C   Doesn't say

25   Mr Carlsson caught the fish.

   A   Right   B   Wrong   C   Doesn't say

26   Mr Carlsson found the ring when he ate the fish.

   A   Right   B   Wrong   C   Doesn't say

27   Thomas and Inger prefer the first ring.

   A   Right   B   Wrong   C   Doesn't say

[Turn over

Questions 1-5

Which notice (A-H) says this (1-5)?

For questions 1-5, mark the correct letter A-H on your answer sheet.

Example:

0   You can eat here in the mornings.   *Answer:*

1   You should not swim here.

2   You must not drive fast here.

3   You can play football here after lessons.

4   It is cheaper to buy things today than tomorrow.

5   You can drive here next week.

A   **SLOW!** DANGEROUS CROSSROADS

B   SWIMMING POOL OPEN AFTERNOONS Adults - £2.50 Children - £1.00

C   HALF PRICE FOOTBALL SHIRTS – SALE MUST END THIS AFTERNOON

D   **POLICE CARS ONLY**

E   **DANGER!** DO NOT GO INTO THE WATER

F   BREAKFAST SERVED 7.00 - 10.00

G   **ROAD CLOSED UNTIL WEEKEND**

H   SCHOOL SPORTS CLUB NOW OPEN IN THE EVENINGS!

Questions 6-10

Read the sentences about going camping.
Choose the best word (A, B or C) for each space.

For questions 6-10, mark A, B or C on your answer sheet.

Example:

0   Adrian and Martin . . . . school last week.

   A   studied   B   went   C   finished   *Answer:*

6   They . . . . to go camping for their holiday.

   A   decided   B   thought   C   felt

7   They wanted to . . . . somewhere near the sea.

   A   stand   B   put   C   stay

8   It . . . . three hours to drive to the camp-site.

   A   had   B   took   C   got

9   They put their tent in a . . . . of the field.

   A   centre   B   corner   C   back

10   They . . . . some postcards to their friends.

   A   bought   B   chose   C   sent

[Turn over

8

Part 5

Questions 28-35

Read the article about a woman called Jahan Begum.
Choose the best word (A, B or C) for each space.

For questions 28-35, mark A, B or C on your answer sheet.

Jahan Begum

Jahan Begum (0) .... born on a farm in the hills. She lived there with her family
(28) .... thirteen years. The family grew their own food and (29) .... animals. But
then one year it didn't rain so they decided to move to (30) .... country.

The journey (31) .... the mountains was long and difficult. (32) .... first home in the
new country was a tent. Then Jahan's brothers made a house with wood and stones so the family
had somewhere better to live.

Now, (33) .... day Jahan makes things like hats and socks out of wool. She sells
(34) .... in the market to get money for food. She is happy with her home and her work,
but she (35) .... hopes to return to her farm in the hills one day.

9

Example:

0	A	is	B	was	C	there	Answer:	0	A B C

28	A	for	B	after	C	since
29	A	keep	B	keeping	C	kept
30	A	any	B	another	C	that
31	A	against	B	through	C	at
32	A	Their	B	Its	C	His
33	A	some	B	each	C	this
34	A	they	B	it	C	them
35	A	yet	B	ever	C	still

[Turn over

10

Part 6

Questions 36-40

Read the descriptions of some jobs.
What is the word for each one?

The first letter is already there. There is one space for each other letter in the word.

For questions 36-40, write the words on your answer sheet.

Example:

0	I help people to learn things.	t _ _ _ _ _ _

		Answer:	0	teacher

36	I show customers the menu and bring them their food.	w _ _ _ _ _
37	People come to my shop to buy medicine.	c _ _ _ _ _ _
38	I will repair your car for you.	m _ _ _ _ _ _
39	If you want to change the colour of your room, I will do it for you.	p _ _ _ _ _ _
40	I help my boss by answering the phone, making appointments and writing letters.	s _ _ _ _ _ _ _ _

11

Part 7

Questions 41-50

Complete this postcard.
Write ONE word for each space.

For questions 41-50, write the words on your answer sheet.

Example: | 0 | on |
|---|---|

Dear Jane,

I'm sitting (0) .... the beach at the moment. Soon, I'm (41) .... to have a swim.
I arrived here three days (42) .... with my family. We (43) .... be on holiday
together here for two weeks. It (44) .... a beautiful place. The beach is very near
(45) .... hotel. The sea isn't cold and (46) .... are many interesting places to
visit. Yesterday we walked (47) .... a village in the mountains. I took lots
(48) .... photographs. It's (49) .... pity that you didn't come (50) .... us.

Love

Peter

[Turn over

Appendix F. Post- reading Stage (Post reading assessment) Excerpt session1

Este cuestionario no esta disponible en este momento

Pregunta 1
Sin responder aún
Puntúa como 1,00
Marcar pregunta
Editar pregunta

Why doesn't Andres like going to school anymore?

Seleccione una:
- a. His best friend does not go there.
- b. He wants to read books at home.
- c. The work is hard.
- d. The kids are mean.

Pregunta 2
Sin responder aún
Puntúa como 1,00
Marcar pregunta
Editar pregunta

Who are the bullies in this story?

Seleccione una:
- a. Andres and Cristian
- b. the bigger boys at Andres's school
- c. the teachers
- d. the gang members at Andres's school

Pregunta 3
Sin responder aún
Puntúa como 1,00
Marcar pregunta
Editar pregunta

What do the mean kids do to Andres?

Seleccione una:
- a. call him names, steal his money, and hide his backpack
- b. call him names

Pregunta 4
Sin responder aún
Puntúa como 1,00
Marcar pregunta
Editar pregunta

Why doesn't Andres tell his mom he is being bullied?

Seleccione una:
- a. She might talk to the teachers at the school.
- b. She will make Andres go to school.
- c. He is scared of what the bullies will do if he tells an adult.
- d. She might hurt the mean kids.

Pregunta 5
Sin responder aún
Puntúa como 1,00
Marcar pregunta
Editar pregunta

What is likely to happen if Andres keeps missing school?

Seleccione una:
- a. Cristian will stop being his friend.
- b. He will get into a fight.
- c. His grades will fall.
- d. The bullies will come to his house.

Appendix G. Self-Assessment Checklist Excerpt session 1

NAVEGACION POR EL CUESTIONARIO

1 2 3 4

Terminar intento...

Comenzar una nueva previsualización

ADMINISTRACIÓN

- Administración del cuestionario
  Editar ajustes
  Anulaciones de grupo
  Excepciones de usuario
  Editar cuestionario
  Vista previa
  › Resultados
  Roles asignados localmente
  Permisos
  Compruebe los permisos
  Filtros
  Registros
  Copia de seguridad
  Restaurar
  › Banco de preguntas

- Administración del curso

AGREGA UN BLOQUE

Agrega...

Puede previsualizar este cuestionario, pero si éste fuera un intento real, podría ser bloqueado debido a:

Este cuestionario no está disponible en este momento

Pregunta 1
Sin responder aún
Puntúa como 1,00
Marcar pregunta
✎ Editar pregunta

Did I learn new words?

Seleccione una:
○ a. Yes
○ b. No

Pregunta 2
Sin responder aún
Puntúa como 1,00
Marcar pregunta
✎ Editar pregunta

Do I know how to predict events in a text using titles, pictures and other clues?

Seleccione una o más de una:
☐ a. Yes
☐ b. No

Pregunta 3
Sin responder aún
Sin calificar
Marcar pregunta
✎ Editar pregunta

Did I feel comfortable at solving questions and exercises?

Seleccione una:
○ a. yes
○ b. no

Pregunta 4
Sin responder aún
Puntúa como 1,00
Marcar pregunta
✎ Editar pregunta

Did I answer with the appropriate response?

Seleccione una o más de una:
☐ a. yes
☐ b. no

Appendix H. Reading Strategies Inventory

Reading Strategies Inventory

En la siguiente lista encontrarás algunos pasos que realizan las personas al leer un texto. Vamos a identificar los pasos que tu realizas.

Despuès de leer cada paso escribe una X en el número (1,2,3,4 o 5) que más te identifique, no hay respuestas correctas ni incorrectas. Cada número significa:

1. Nunca o casi nunca realizas la actividad

2. Ocasionalmente

3. Aveces (50%)

4. Usualmente

5. Siempre

Actividad	1	2	3	4	5
1. PR.Me anticipo a lo que viene después basado en claves de contexto y lo que ya sé para comprender mejor el texto.					
2. PR. Me detengo periódicamente y modifico mis predicciones basadas en el texto.					
3. PR. Busco evidencia en el texto para confirmar o descartar mis predicciones.					
4. SC. No leo el texto palabra por palabra, la idea de exploración es leer rápidamente.					
5. SC. Miro todas las palabras en cursiva, números, palabras en negrita,					

títulos, palabras en mayúscula, números telefónicos, horarios.					
6. SC. Encuentro una palabra en particular, la idea o la información buscando números, símbolos y palabras en un texto.					
7. SC. Me pregunto qué quiero obtener del texto.					
8. SK. Lees verticalmente así como horizontalmente.					
9. SK. Leo la primera oración de cada párrafo.					
10. SK. No leo las oraciones completas Si el inicio de una oración no promete de la frase que me da la información que deseo, paso a la siguiente frase.					
11. QS. Solicito información antes, durante y después de la lectura para conocer una parte de la historia que no entiendo.					
12. QS. Encuentras las respuestas "allí" en el texto (por ejemplo, detalles, palabras clave, idea principal, concepto de base) con facilidad.					
13. QS. Pienso profundamente y uso claves de contexto para mirar más allá de lo que se afirma rotundamente en el texto.					
14. QS. Para identificar la información en el texto pregunto usando palabras de información como: qué, quién, dónde, cuándo, cómo y por qué, antes, durante y después de leer un texto.					

Appendix I. End of the project survey.

Survey to get students' perceptions

Estimado estudiante en el siguiente cuestionario encontrará unas preguntas sobre el desarrollo del proyecto de comprension de lectura en lengua inglesa y las competencias que usted adquirió a través de este. Responda con la mayor honestidad posible.

Pregunta	Respuesta
1. ¿Cuál fue tu experiencia al realizar las actividades de lectura a través de la plataforma?	
2. ¿Qué actividades realizas antes de iniciar la lectura de un texto?	
3. ¿Qué actividades realizas cuando necesitas identificar las ideas y palabras claves de un texto?	
4. ¿Qué actividades realizas cuando no sabes el significado de una palabra en Inglés?	
5. ¿Cómo percibes tus habilidades de lectura en este momento? Describe con cuál te sientes más cómodo o en cuáles encuentras más facilidad	
6. ¿Contestaste los cuestionarios con las respuestas apropiadas de acuerdo a cada texto sugerido y teniendo en cuenta que el contexto general te ayudará a encontrar la respuesta correcta?	