# Apprendetorium, a Web Space for Standardized Test Preparation

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**Table of Content**

Table of Content ..... 4

1. Introduction ..... 6

2. Justification ..... 8

3. Objectives ..... 11

3.1. General Objective ..... 11

3.2. Specific objectives ..... 11

4. Theoretical Framework ..... 12

4.1. ICT in Education ..... 12

4.1.1. ICT in English Language Learning. ..... 18

4.1.2. Social Media as an Educational Tool. ..... 23

4.2. Moodle ..... 23

4.2.1. What is Moodle? ..... 23

4.2.2. Moodle´s Functioning ..... 26

4.2.3. Resources and interactive Modules. ..... 28

4.3. Standardized Tests ..... 37

4.3.1 What is a standardized Test?. ..... 37

4.3.2 Kind of Questions. ..... 39

4.3.3 Performance Levels in English Exam. ..... 49

5. Data Analysis ..... 52

5.1. Participants ..... 52

5.2. Methodology ..... 53

5.2.1. Moodle. ..... 58

5.2.2. Hangouts ..... 61

5.3. Sample Analysis ..... 63

References ..... 68

## 1. Introduction

Within the present internship report, the reader could find the digital didactic sequences and the preparatory process that was developed with students throw a web space. In this project, English was used as an additional and mediating tool to engage children with the use of Moodle web space, while learning and practising strategies to achieve satisfactory results in the Saber standardized exams.

Through the following chapters, the reader is going to find the process carried out in this internship as theoretical principles, methodology and findings discussion. This document is the result of this process and its report to show how ICT learning spaces as Moodle makes difference in the preparation process of eighty students in a public school.

In the past years while educational techniques have advanced in different stages for diverse purposes as education in distances, for different necessities, kinds of materials and another different purpose. Preparation programs have had a stanch in terms of techniques to prepare students for standardized exams. At the same time, education has an extended range of resources at its services by the hand of science and pedagogy. Indeed, these advances are expecting to be used for preparation programs as Saber test.

My purpose was to devise a digital material through a pedagogical innovation supported by students to gain some strategies and experience on the Saber standardized exam presentation.

Incoming so, I planned to integrate the new technologies into the school`s curriculum taking into account.

According to Shohamy “the field of language testing is viewed as consisting of two major components: one, focusing on the ‘what’, taken as the tools gave to students in the web space transformed in digital material , referring to the constructs that need to be assessed (also known as ‘the trait’); and the other pertains to the ‘how’ (also known as ‘the method’) which in this case is the way that students are going to develop different activities, which addresses the specific procedures and strategies used for assessing the ‘what’ ” (2013).

Taking into account the motivation and the purpose reviewed in the previous section for me was important to show the elements, which made relevant this project in English language educational field.

## 2. Justification

This area of action and research proposal was approached by three main arguments that compose the following section that can be advanced to support and justify this project.

First, because I noticed in my previews jobs at some different institutions and schools, public and private, that preparation programs for Saber standardized tests used printed materials since these programs appeared in education. According to Garcia Estudillo (2001), "the Information Society it is a concept present since the 70`s and this it is extant in the Post-industrial age from an economic, technological, cultural, occupational and global viewpoint". In addition, according to a report from UNESCO (2010) "un Segundo tema crítico es el uso de las TIC como práctica estándar en la profesión docente. El tema alude a la inclusión de las tecnologías de información y comunicaciones en la formación inicial, al servicio de los maestros. Hoy en día la inversión y uso de TIC en formación inicial y continua de los docentes debe estar en armonía con el hecho que el uso de esas tecnologías es ya una práctica normal en la vida cotidiana de gran parte de la población joven en todos los países.[1]" Here is highlighted that students as teachers have access to ICT at home, schools, libraries and some other different places in their daily life and that

[1] A second critical issue is the use of ICT as a standard practice in the teaching profession. The topic refers to the inclusion of information and communication technologies in initial training, at the service of teachers. Nowadays, the investment and use of ICT in the initial and continuing education of teachers must be in harmony with the fact that the use of these technologies is already a normal practice in the daily life of a large part of the young population in all countries.

makes a mandatory and important component to teach and learn in a better way inside and outside classroom-focused in Saber Standardized Test.

Social media it is an important part in ICT's implementation to new techniques and studies in English teaching today, as Do Carmo shows us in her article where she deals with five cases of some teachers that use Facebook groups, blogs, and video or audio recording websites. This to enhance some skills from their students with different results; Da Carmo demonstrates that the use of these Facebook groups has greater acceptance than another kind of resources.




| Nivel de agregación | Promedio | Desviación |
|---|---|---|
| Establecimiento educativo (EE) | 55 | 10 |
| Sede 1 | 55 ● | 10 ● |
| Sede 1 / Jornada 1 | 55 ● | 9 ● |
| Sede 1 / Jornada 2 | 56 ● | 10 ● |
| Colombia | 53 ● | 12 ● |
| ETC | 58 ● | 12 ● |
| Oficiales urbanos ETC | 54 ● | 10 ● |
| Oficiales rurales ETC | 51 ● | 10 ● |
| Privados ETC | 63 ▼ | 12 ● |
| GC 1 ETC | 49 ● | 9 ● |
| GC 2 ETC | 50 ● | 9 ● |
| GC 3 ETC | 56 ● | 10 ● |
| GC 4 ETC | 70 ▼ | 11 ● |

Figure 1. Chart of English results 2016-2 from a Public School. Taken from: http://www2.icfesinteractivo.gov.co/resultados-saber2016-web/pages/publicacionResultados/agregados/saber11/agregadosEstablecimiento.jsf#

Some result in different Saber exams from 2016(figure 1), seems to evidence that students may present problems in preparatory courses for this exam. They show that English score in this results show that preparatory courses are as another subject that they do not want to take, in some cases. In other situations, they do not understand at all topics teachers usually explain in these courses. This situation gave me the second reason to choose this topic and create materials to be upload in a web space. This pedagogical innovation is intending to be assisted by tools made for students to studying and preparing for this standardized exam structure contents, anywhere and wherever they want.

As the Justification shows, there are roughly reasons and arguments to establish a chain of relevance that highlights the causes of this intervention and this carries some objectives, a general and some specific ones, that are the following.

## 3. Objectives

### 3.1. General Objective

To analyze the effects of the Moodle web space as an educational tool and digital learning environment for secondary students to present the Saber standardized test.

### 3.2. Specific objectives

- To compare didactic materials used by public schools to prepare secondary students for presenting Saber standardized test.
- To describe a web space for students to demonstrate the influence of ICT in assessment processes.

## 4. Theoretical Framework

Create and design questionnaires in digital environments and web spaces directed to preparatory courses in standardized exams as Saber 11 test require a conscience and knowledge about students' proficiency in English, the methodology of web spaces and the teaching principles behind the school philosophy. These aspects affect the learning process in two ways, even positive or negative.

In this part of the document, the reader will find the theoretical fundaments that guide the project.

### 4.1. ICT in Education

New times carries advances in all kinds of elements used to teach in all fields of education, and the use of ICT in English language Education has increased over the years, as we can evidence in TV advertisement, online private courses are the new wave of innovation for education in English learning. Public Schools can´t be separate public schools from these technological advances available to everyone and everywhere. UNESCO (2010) says "Las inversiones en Tecnologías de Información y Comunicaciones (TIC) para la educación realizadas

en los países de América Latina y el Caribe son crecientes. Solamente en materia de dotación de equipos los países invierten cientos de millones de dólares al año."

It is very important to emphasize that for some teachers, who have talked about this resource in education, the use of ICT in school will not replace books in the classroom. Conversely, it must be a complement and reinforcement inside the preparation process of students enriching, expanding and integrating different materials that stimulate the different learning styles of the students and adapt the knowledge of school to their direct environment (Rossini, 2010). The factor that leads us to a secondary effect of the use of these resources, which would be an increase in the digital inclusion index and development of competencies of the Apprentice of the New Millennium.

The constant efforts from different governmental agencies and statements of the educational system, for example, Icfes Standardized Exams, around this area have bear fruit showing us that these fields are becoming strong allies: Technology and Education. Bringing with themselves enormous results that are the proof of their impact on educational environments. (Rossini, 2010) She describes in *"El Impacto de las Tic en la Educación"*, some figures that dictate a number of 16,000 learning objects, going through more than 1000 textbooks and free courses, with the option of printing on demand and at a very low cost. Too as well as the possibility of doing it in

more than 40 available languages and its usability, the impact is 2,000,000 individual users per month.[2] (Cited in Rossini, 2010).

In this way and with data such as those mentioned above it is pertinent to mention the challenges that were Defourny stated for us as educators, these challenges need new responses from the transition processes between an information society and a knowledge society. For Defourny are relevant the next five points to answer these challenges: first, recognize the need for ICT in education. Second, exercise the ability to search, validate and contrast information. Third, make an effective and ethical use of the ICT contributing likewise to a more effective citizenship; fourth, generate and distribute knowledge not as processors but as builders of it and promoting the creation of a competency framework for teachers to integrate the ICTs to have a better quality of student learning (Cited in Rossini, 2010).

All of the above needs to have governmental support from the education ministry until the directors and education managers inside schools, where teachers and all school parts have to acquire training about ICT elements. This to learn the use to ensure a correct and efficient management of the resources taking advantage of their strengths, recognizing their weaknesses to improve the learning and teaching processes. (Rossini, 2010).

[2] Figures from the Connections Project (http://cnx.org/), founded by Richard Baraniuk which promotes collaboration, learning and teaching through Free Distribution Learning Objects.

Talking about teachers and the use they give to technology, some authors assert about some researches on integrating ICT in classroom gave to them a view of the lack of connection between the uses that teachers give to these technologies in personal and professional life to develop skills and knowledge to examine the educational implications of these new teaching aids (Valverde. Garrido. Fernandez, 2010).

The authors reveal an important part of the problem that ICT integration to education presents in schools although there are many innovations in terms of resources and teaching strategies to achieve better results to accomplish the objectives that ICFES stated for students in final grades. With Colombian students, the above becomes critical added that there is not a complete coverage in schools in terms of ICTs implementation in comparison with some other countries

In Colombia, Digital Blog some statistics are shown about the appropriation of information technologies in education in the world and in Colombia. This web space stated that according to *(FEM, World Economic Forum)* using the NRI (Network Readiness Index) they affirm that "The measurement of NRI and international comparisons are of great interest to the extent that the use of ICT is associated with the strengthening of nations' innovation capacity, productivity and efficiency, across all economic sectors and social" (Orduz, 2012).

The data presented in Figure 3 is very important as it gives us an idea of the place that education has inside the chain of innovation and creation of the society, taking into account education as the base for all of these fields that FME takes into account to make their statistics.

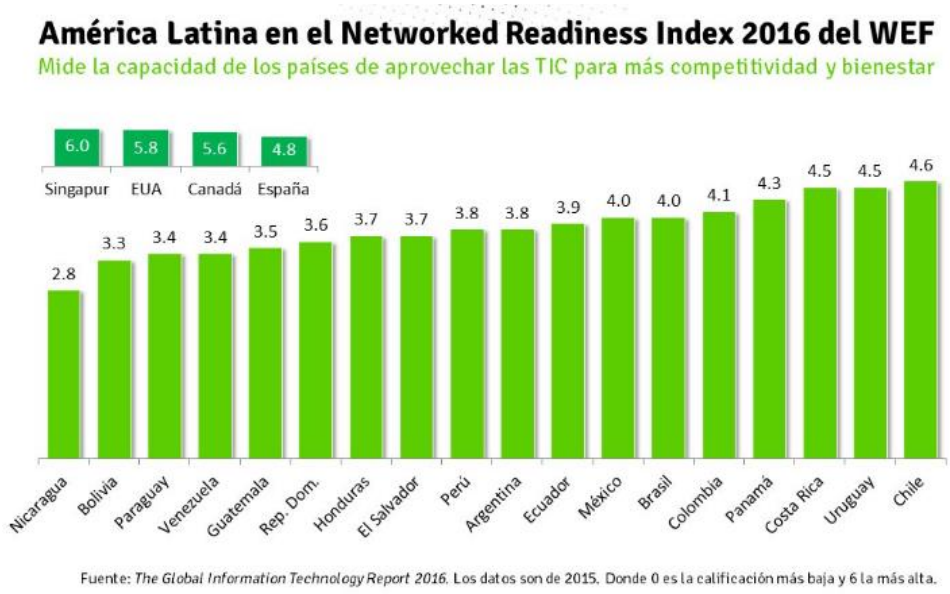



Figure 3. Source: http://telecomunicaciones-peru.blogspot.com.co/2016/11/tic-reporte-global-de-tecnologias-de-la.html

Figure 3 shows NRI percentage in 2016 in all of the Latin American countries compared with the four highest countries in the graphic (Singapore, EEUU, Canada and Spain, this data is valued from 0 as the minimum percentage of ICT presence in the country and 6.0 as the maximum level. Nicaragua shows the minimum level with 2.8 points of NRI in comparison with Chile that has 4.6 points. Colombia presents 4.0 points of NRI that corresponds to a medium level compared to Singapore. Albeit this may make up a point of departure for a country like

Colombia, it remains late in contrast to other countries as in the graph of figure 3.

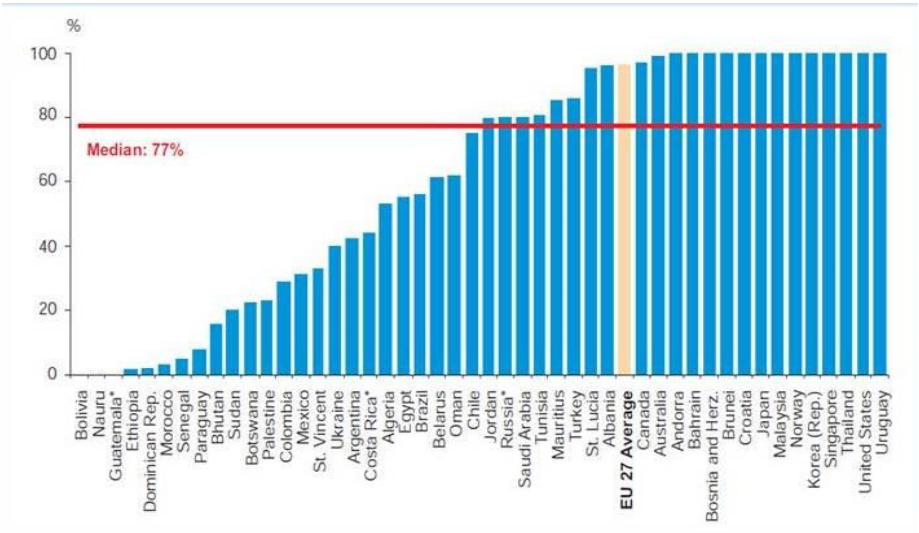



Figure 4. Source: International Telecommunication Union, Monitoring the WSIS Targets, 2010.

http://www.itu.int/ITU-D/ict/publications/wtdr_10/material/WTDR2010_e_v1.pdf

Now in terms of public schools with Internet access the Colombia Digital Blog, Orduz explains that Figure 4 "reflects information about the percentage of public schools with Internet access. In the countries of the European Union (27 in total) connectivity is greater than 90% of establishments. The connectivity in the Uruguayan case stands out, of 100%. In Colombia, there are enormous challenges to the extent that the information corresponding to 2009 indicates that only 30% of the establishments had Internet access (according to ITU). Countries like Chile are located in the average (77% of establishments with Internet) of the nations under consideration." (2012).

Both of the previous contributions of Orduz explains the relevance of ICT in 21st century´s education, ICT presence exposed here the enormously important and give us a bigger idea of the impact that these resources have in preparatory processes. For example, taking into account the relationship it must be treated the relation between ICT and language learning as the transversal axis of this internship.

**4.1.1. ICT in English Language Learning.** Historically it should be highlighted the fact "Computers have been used systematically in the teaching and learning of foreign languages (FLT/FLL) in universities since the 1960s" (Fitzpatrick, 2004, p.13). He also states the instruction of personal computer (PC) as the facilitator of accessibility. The first acronym gave to the use of computers for language learning was CALL, but later was divided into ICT and FLL (Foreign Language Learning)/ FLT (Foreign Language Teaching). This important was reflected in the creation in 1986 of EUROCALL and in 1998 of WovZdCALL, organizations from Europe and worldwide that aim to help nations with lower levels of attention in ICT and FLL/FLT (Fitzpatrick, 2004).

Guided by the importance of ICT in society exposed in the previous section, it is necessary to name the language teaching advances that every day appear to give tools to students and teachers in order to increase the level of preparation to accomplish the goals of educational institutions in Colombia. Stanley (2013) affirms that on one side, ICT has had a tremendous growth in the recent years with 90 per cent of teachers in European Union (EU) as users of this to help their teaching process.

ICT Schools as an investment of these countries included spending on digital learning content, connectivity, professional development, and equipment. Establishing the digital literacy, inclusion, and skills as objectives for each one of these countries (Stanley, 2013).

Now in the other hand, The US case seems to be the same shows that The Office of Educational Technology (OET) developed the "National Educational Technology Plan" for transforming education through the use of technology using tools. In Asia, Africa and Latin America the same is happening but with a limited access (Stanley, 2013).

Stanley (2013) analyses worldwide cases to give us an idea about the development of English Language Learning in a general view according to the most important places on the planet, the focuses his report in the way that ICT is implemented by schools for Teachers´ use form tow perspectives from the study made by another author.

In one study of the effect of ICT implementation in schools, Ilomäki (2008: 67) found two types of 'ICT stories'. The first saw expectations for ICT being overestimated in the majority of cases, with the process of implementation being top-down and 'without a strong commitment to the schools or the teachers'. In some cases, however, success came when the focus was placed on the needs of a specific school and was supported by the internal improvement of that school. The effect of supporting teachers and on training teachers to use ICT can also not be underestimated (cited in Stanley, 2013, p. 46).

This is the tendency in our country, where the institutions which want to implement ICT in their curriculums tries to do it resulting in what was previously discussed by

Stanley. Showing us that this case is not too distant now in relation to the place where the teacher or the institution is located and even more so in our country, in spite of the national projects to implement ICTs in schools that become very difficult if teachers are not well qualified in ICTs educational uses. (2013).

Web-Based Learning is a term that Fitzpatrick introduces in his article "*Information and Communication Technology in Foreign Language Teaching and Learning - an Overview",* He believed since that time that the web learning based in ICT tools was going to be future in the 21$^{St}$ Century.

To accomplish the requirements for a correct use of this kind of learning the author describes three points from such materials. First, web-based Learning could offer more than simple feedback to students on correct incorrect inputs in different activities, as is made in computer-assisted exercises or CD-ROMs, but also allows a communication and interaction medium between users regardless of the direction they take as Fitzpatrick (2004) affirms about the features of the learning environment linking learning in a self-study and tele-cooperative mode in web and real meeting in classroom.

Second, the author was strongly recommending the creation of a platform, as will be exposed Moodle in this document, to offer links in classes and language lessons or materials, also learners shall be provided with a quality guide taking into account the most important points before joining in this kind of courses.

Third, he affirms that the less widely used and taught languages could be throwing and promoted while the development of web resources as platforms with non-language specified promising venture focusing the creation process in a framework for web-based learning.

These requirements go hand in hand with the teachers' qualifications and skills. This means institutions may reinforce teachers' training. Thus, accomplishing these requirements, Fitzpatrick (2004) talks about some prerequisites to complete a successful integration between ICTs and schools. Highlighting here that quality is more important than quantity, in this case, some studies have shown that technology is more effective for students in language classes when:

> There is a real reason for using it. Alternative activities are to hand if problems arise. Training and support are given to learners. The use of technology is integrated and on-going. The activities engaged in are stimulating and worthwhile to the learners. Communication is taking place between learners. Learners are asked to use language in meaningful ways (Fitzpatrick, 2004, p.14).

Here he shows the most important steps to achieve an effective ICT class integration. In addition, on the other hand, Fitzpatrick share the ICT competencies for language teachers in a media-rich environment needs to:

> Recognize the individual learning problems of learners. Make a careful and considered choice concerning the use of the media. Check the truth of information content offered. Develop efficient search techniques and be capable of conducting effective research with the help of the computer. Be able to use standard software

> confidently and competently. Make wise and critical choices of information found (Fitzpatrick, 2004, p. 19).

These competencies are linked to what has become "the new literacy", which according to the author are five kinds of new literacies that are *scientific, digital, critical, linguistic,* and *cultural literacy*. In this case, we are going to be focused on digital, linguistic and cultural literacies, in that respective order *digital literacies* are required using ICT in a "correct and proper way" (Fitzpatrick, 2004, p. 19) principally to the subject in hand in order to obtain de best results and tools to give the best material to students. Also, there is the use of linguistic tools in exercises and quizzes, these *linguistic literacies* are related to the ability to recognize different genres as they develop tracking developments in use and usage of language to adapt materials to teaching so these are authentic or not. Finally, *cultural literacies* to relate the knowledge of observing and recording changes in societies from the target languages with the implications of the language teaching making that such changes could be a convergence from a general nature between native culture to target culture or particular changes to target culture (Fitzpatrick, 2004).

Considering the importance of ICTs in Education abovementioned, these new trends taken by the hand of technology give us the guideline to relate them and create a discourse line based on the general data to achieve the particular, taking some of the most known cases and apps to be applied in this project and been conscious of its importance in 21st

century with new generations which demand more and alternative options to teach and learn. These tools and new trends are going to be part of the next sections.

**4.1.2. Social Media as an Educational Tool.** It is undeniable to recognize the fact that "The increase in popularity of social networking sites such as Facebook and Twitter and increase in a number of social users allow the access to more resources in terms of learning and sharing" (Bicen, Sadıkoglu, G. Sadıkoglu, S. 2015, p. 1046).

**4.2. Moodle**

The School´s web page is hosted this platform in (*http://heladiamejia.edu.co/inicio/aulasvirtuales/*) where students and teachers have a username that use to login to the page and check their respective work. That is a useful way to share knowledge and information between teachers and students outside of the school day as easy as post a homework using five minutes on the website.

**4.2.1. What is Moodle?.** Defined by (Baños, 2013) as "an application to create and manage educational platforms, that is, spaces where an educational centre, institution or company, manages educational resources provided by teachers and organizes access to these resources by students, and also allows the communication among all those involved (students and teachers)."

Moodle is a server where teachers uploaded all subjects´ activities to students in all grades that was the web space used by this project to enhance teenagers from 11 grade in this course. That was the source used to upload and work with the students on the project.

Moodle is the acronym for (modular object-oriented dynamic learning environment); Martin Dougiamas who was a graduate from computer sciences and education created it, his purpose was to examine "the use of open source software to support a social constructionist epistemology of teaching and learning within Internet-based communities of reflective inquiry". The author resumes Moodle as an app to create and lad educational platforms or in other words a space to educational organizations, companies or institutes could manage resources created for teachers and available by students allowing the communication between them in two ways, teacher-student and students-teacher, this with the purpose of increase the use and utility (Baños, 2013).

Being a didactic and dynamic environment, Moodle is used as a tool to share all kind of information, workshops, and evaluations inside school process of learning, the extensive branch of elements contained in the platform gives to the teacher unlimited possibilities to create a different type of questions suitable to teacher´s necessities.

That is the attractiveness of this system and at the same time, the principal reason to use this platform nowadays education, taking in account that the journeys inside schoolday by day increased the demand of time from students and teachers to achieve the best possible results.

***4.2.1.1. Moodle Features.*** Knowing the purpose and uses of Moodle as a web space to get together students and teachers inside a dynamic web space to give them a new space for interaction. Is important to highlight the different features that Moodle has in terms of technology and pedagogy. Baños (2013) describes some of these features like a modular and dynamic learning environment oriented to objects. That it is easy to maintain and update to teachers with a training of ten minutes or reading of a tutorial book. Except for the installation process, it does not need practically "maintenance" by the administrator.

Then except for the installation process, that is so difficult to do, it does not need practically "maintenance" by the administrator. Moodle also has an interface that allows everyone to easily create and manage courses from wherever users want to and while the use any technological device. Taking into account that the project is focused on standardized tests and kinds of questions it is important that in Moodle the resources created in the courses can be reused. At that moment, of the registration and authentication of students, the process is simple, secure, as easy as introducing the name of a student, and register that user to the course.

Now it is very easy to work with it, both for teachers and students and that is possible because the interface and controls in the webpage are easier to understand for its intuitive and modifiable interface. Add to that, behind him there is a great community that improves it day by day with huge discover and new ideas, documents, and supports in the resolution of problems.

Finally, this platform based its principles on constructivist pedagogical: "learning is especially effective when it is done by sharing it with others" (Baños, 2013, p.13). Therefore,

that´s the philosophy of the web space and it is the most important feature in this platform up today. This is because the elements created and introduced in this app is guided to be bound to each of the principles of the previous list, in order to fulfil the mission that is entrusted to them by the creator and likewise giving the users the principles for a hundred per cent use of reliability and usefulness of resources.

All this leads, of course, to a need of understanding several processes unique and exclusive in the operation of the platform that will be named and treated in the following part of the text to give the reader a better understanding of the importance of these within the process developed in this project.

**4.2.2. Moodle´s Functioning.** Talking about this brand of servers and web spaces, like Moodle, in this case, it is important to review that there are some parameters to take into consideration in terms of technology and pedagogy. The participants must have some basic knowledge about web spaces and their way to be used to get the best results from the process. Here will be some requirements to have a correct and optimal functioning of the platform.

Firstly, it is necessary to have Internet access because Moodle works using a URL domain hosted on an Internet browser (Chrome, Opera, Safari, Edge, etc.), each one of the platforms has a specific URL domain that must be known by the user to get access to the information contained inside the course (Baños, 2013).

Baños (2013), also talks about the different spaces that user can use share and add all kind of resources inside the sections and the parts of the course; it is so easy to use the resources inside the course adding all kind of questions to a quiz or questionnaire to apply from teachers to students. There are some parts that are basic in the process to know and use the platform.

It is important to see and know Moodle´s interface to understand how it works and what tools it has available, in this way Baños (2013) also describes the different resources that are available to use in the platform and this gives to the user the facility and the tools that can use. It is important to be familiar with the different parts and functions of the platform to be able to use it, creating all kind of activities that will be helpful for the project carried on the website. Then, there will be described the diverse elements that compose the platform to make easier and manageable the learning process for students.

When you are in the principal page the first element you find it's the panel to introduce username and password, this page has four zones that Baños (2013) describes as the header, which contains the name of the course, the registration information and a link to exit the system. The central column, which contains the elements of the course, in all cases there is a list of the topics and activities that are active in the course and available to check in the course. The left and right columns, in which the blocks that Moodle puts at the disposal of the teachers to check de different options to manage the courses, and the footnote, which shows our username, allows us to exit the system and return to the main page of the site or course.

Baños describes also that there are options that allow to the teacher adjust the content inside the course: the first one is using the button *"active edition mode"*, activating the different icons to adjust the item selected by the teacher. Adding to that you can customize the position of the activities, that teacher upload and put them in the preferred order by himself.

According to this project, one of the most important options in platform´s functioning is *"add activity and resource"*, that button will open a window where will be shown all kind of activities and resources that are offered. The teacher chooses the one which is most suitable for the course and the next step is to put the respective questions or instructions inside the questionnaire to be applied to the students. Finally, the teacher defines the way to evaluate students with some different ways as questionnaires about topics, or maybe using chat or forums.

**4.2.3. Resources and interactive Modules.** As a platform focused in cooperative learning spaces, Moodle is focused here in preparatory courses, in this order of ideas the way that teachers use and apply the different resources present on the web space it is a decisive point in the manner that the course will be managed (Baños, 2013).

This chapter will be a centre in "those activities that focus more on the student than on offering information to the recipients. In some of these modules, the student will have some navigation control over the contents and, depending on this interaction, the system proposes

activities, tracks their actions and provides feedback." (Baños 2013, p. 153).[3] According to the above-mentioned students are able to be conducted by the platform in an intuitive way, they only need to follow the instructions gave by the teacher and the activity will guide the user to complete the quiz, answer the forum, or show to them activities that could be interesting to them. The activities described here are going to be quizzes and forums, which will be explained below.

***4.2.3.1. Quizzes.*** This is the first and most used resource to this project taking into account that students are being trained in standardized tests questions´ resolution, in Moodle the quizzes are very powerful and extremely flexible to allow to the teacher create all kind of quizzes editing the extensive variety evaluation strategies that are present in this resource.

Beginning with initial assessments (which measure the level of students), test type tests (with random question generation and instantaneous evaluation), in level tests in the different curricular competencies, as well as in different self-evaluation possibilities, which facilitate students follow their own performance, and likewise as a reinforcement and revision tool, etc. It is important to stand out that the different quizzes have to be well designed to make them potentially successful (Baños, 2013).

[3] Own translation: "aquellas actividades que se centran más en el estudiante que en ofrecer información a los receptores. En algunos de estos módulos, el alumno/a tendrá un cierto control de navegación sobre los contenidos y, en función de esta interacción, el sistema le propone actividades, lleva un seguimiento de sus acciones y realiza una retroalimentación".

The platform presents so many options and that translates into a variety that can be adjusted to the resource, Baños (2013) proposes some features or characteristics to apply in the quizzes:

First, due to its structure, questionnaires can be created with a great variety of types of questions (multiple choice, true/false, short answer, filling gaps, etc.), that are applicable in the topic that the teacher wishes to take to completion. So knowing the range of questions, which it is possible to use Baños (2013), sticks out that the questions are organized by categories within a question bank and can be reused in the same course or in other courses.

In addition, random questionnaires can be generating from the questions stored in the question bank to make short quizzes or complete final term evaluations. It must be taken into account that the process of creating and entering questions within the course has some steps that cannot be left behind and must be taken into account within this project. Due to the fundamental importance of the questions and assignments in the developed project, treating this topic in another section of the document but leaving it present in the storyline.

HTML questions are an important part of the creation process for Baños (2013) and it is always present as a help and advance for the development of the quizzes, it is necessary to have some little knowledge about this source, multimedia elements can be added too, while the use of an external text file. Besides, the questionnaires may have a time limit from which they will not be available. Furthermore, the teacher can let students to make a number of attempts on a

question or to answer the questionnaire numerous times (with the option that each attempt builds on the previous one).

The author states that the questions and the answers to the questionnaires can be a mix (randomly) to make copies difficult among the students Baños (2013). In addition, one of the most important of the features and the last is that each attempt will be registered and qualified and the teacher can choose if a comment should be a show or the correct answers at the end of the activity.

Finally, it is important to do a summary that explains that the central part of the platform are quizzes. In the case of this project, giving to the teacher the possibility to assesses students in order to have an idea of the progress, strengths, and weaknesses while the use of the different type of quizzes that this resource offers to us as teachers. Then through the treatment and recognition of the elements, which characterize quizzes, can be understood that this resource is very simple to use and when the user interiorizes this knowledge learning becomes very dynamic and calm.

This is going to lead the way to understand and give a step to talk about the second resource of the platforms that were used in this project.

***4.2.3.2. Forums.*** According to the author, the forums are asynchronous communication tools inside the platform. They allow the communication between participants from any place where an Internet connection is available regardless of the time of entry (Baños, 2013). As other web forums, here in the platform forums are places where every participant can place their contributions, post small messages or hold public discussions on a topic. News Forum is a stock article present in each course and is in zero section of the central column, it is a place to put announcements of a general nature. Finally, it is interesting to know the last messages published are also present in the News block, functioning as well as a bulletin board (Baños, 2013).

There are more forum types different from the general forum that could be created with some educational possibilities offered by the forums doing exercises to use critical thinking, making the opinions of students based on arguments; this allows to teacher exercise the reflective thinking that it is difficult to do inside the classroom. Linked to the aforementioned point, one side of this resource seeks to stimulate the real participation of the student without limitations of time and space by means of the tools offered by the platform.

In this way a coordination of their teamwork could be achieved through the resolution of problems in a complementary way, all the above mediated by an education in respect for people with different opinions that transversally becomes an addition to the work of the platform thus giving not only academic training but also in values (Baños, 2013).

On the other hand, the teacher saves time answering questions or clarifying doubts that can be general for the rest of the members of the virtual space. In terms of social interaction, this space

also manages to force the student to write and order his or her thinking autonomously with a use of this opinion on topics that are of interest to students and are close to their direct environment making this learning more meaningful. Finally, along with a previously discussed point can enhance learning between people through real-time interaction and without mediation limitations (Baños, 2013).

In the same way, there are some features part of forums and the author describes that some of them are essential in the differentiation of this resource from other existing in the platform. In the beginning, we find that there are different types of forums available: exclusive for teachers, news of the course, unique debate and open to all participants. The discussions can be organized by branch or present the messages from the oldest to the most recent. Each intervention in a forum is registered in the system with the user's name and the date of its contribution, making the following of the conversation is something intuitive and dynamic. In terms of communication, messages can also be view in various ways, including attachments and embedded images (Baños, 2013).

Forums can be structured by some different ways giving the possibility to evaluate each message while the valuation of the different users. Teachers can move the discussion topics between different forums and can force their students to subscribe to a forum or allow each student to choose which forums they want to subscribe to in order to send a copy of the messages via email. RSS feed can be activated and select the number of items to be added. Allows the tracking of messages read or unread in forums (Baños, 2013).

Knowing features and options existent in forums is important to describe the creative process that is the same process to create an activity, activating the button *"active edition mode"* and add this in the section required. Then the configurations needed to use this resource are easier. It consists of giving a name to the forum that can give an idea to students about the topic, as it is shown in figure 2.

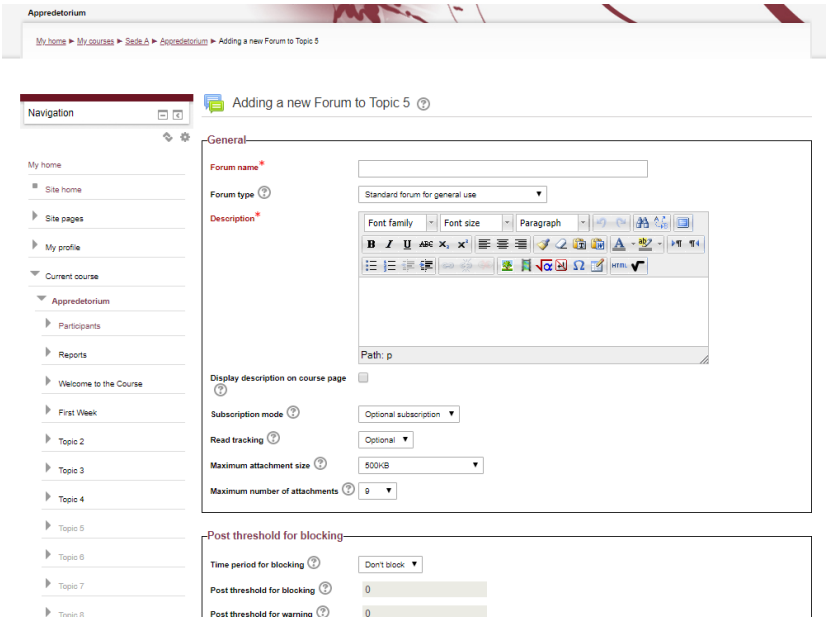



Figure 2. Screenshot of the forum configuration panel. Taken on the Moodle platform of the Heladia Mejia School.

When we want to create a new forum, the first step is the same that is for every new activity, *turn to edit on* must be activated, then the page will let us select the week where we want to create the new activity and then will appear a new chart where all kind of activities will be displayed. After that, the user will find the page showed in figure 2. Finally, the user has to choose the configurations that we want.

So this gives space to select the kind of forum which we want to use in the course, the author tells us about four different types of forums available in the configuration of this resource.

First *A Simple Debate* is an interchange of opinions about a topic and a unique thread of discussion useful for short and concrete debates, it is useful for extracurricular activities where students could talk about topics stated by the teacher or choose by them. Second *Each Person Can Purpose a Debate Topic* but only one an all members can give an answer to it, in this case, the attractiveness of this kind of forum lies in the possibility to establish different topic of discussion and al members can answer the ones which they want to. Third *P&R Forum* that is a forum posted by the teacher in which all students are required to respond but they cannot see what their classmates respond until they post their input and this means that each student has to post an answer so that he can later confirm it with the others. In this way, it is important the point of difference of this with the other forums when students cannot see the other responses and they don't influence their opinions with the opinions of other users. Fourth is *Forum for General Use* which is an open forum where any member can start a new discussion topic at any time, this is

the most common to use by teachers to report important and relevant announcement to users of the course (Baños, 2013).

Baños (2013) describes the diverse process as easier as he can, all the stuff need to use Moodle in all educational stages that every teacher would imagine and need, as the operational base of this project in terms of organization and functioning. Each one of the elements described previously are part of a bigger process use in Colombian education to assess students results at the last point of secondary school. This is the case of Standardized Tests, specifically, this applies in Colombia to high schools and that is the objective of the next section.

### 4.3. Standardized Tests

**4.3.1 What is a standardized Test?.** Defined According to the definition developed by the author, this concept is develop in this project guided under Phophan definition, giving us an important concept from which the main idea of this report is forged in these words, "A standardized test is an examination that is administered and scored in a predetermined, standard manner" (Phopham, 1999, p. 1). Guided under two assumptions reported by Gawthrop in his paper, those are "(1) standardized tests are designed objectively, without bias and (2) standardized tests accurately assess a student's academic knowledge" (2014, p. 3).

Comentado [AR1]: Mejore la redaccion

"The ICFES test, now called Saber 11 °, is an evaluation applied by the Ministry of National Education (MEN) with the aim of measuring the skills acquired by students during their basic and secondary education"[4].

In contrast to this definition, Francia & Mackinney describe standardized tests as a recitation of different types of questions equivalent to bricks (2016, p. 80). Taking into account the component of reading comprehension contained along the whole Saber 11 Standardized Test, in Colombian case, as a way to assess the knowledge acquired by the student during the learning process at school, making participants critical and analytical beings.

[4] "La **prueba ICFES**, ahora llamada **Saber 11°**, es una evaluación aplicada por el Ministerio de Educación Nacional (MEN) con el objetivo de medir las destrezas adquiridas por los estudiantes durante su formación básica y media" Translated from: http://www.tupreicfesinteractivo.com/2011/07/que-es-la-prueba-icfes.html

Gawthrop describes the purpose of these tests to asses' students in an academic domain such as maths, sciences, language, etc. Administering the same test to every member of the course who will receive it by measuring them with fairness and objectivity (2014, p. 5).

***4.3.1.1 Saber Standardized Exam.*** ICFES proposes to ICFES proposes the objectives which guides this exam as the next points define them in their content to use it as the same way in order to give us a way to follow during the project complementing the objectives. Established in this project as the following; (1) checking the level of skills developed by students who are finishing their eleventh grade, (2) be able to provide information to high education institutions (IES) in order to give them criteria top select their participants to educational programs (3) and be an input to monitor of the quality of secondary education offered by private and public schools (2018, p. 9).

**Comentado [AR2]:** redaccion

These exam asses' students in eleven grade who are finishing their preparation process in schools to obtain results in order to enter higher education establishments. Too could be presented by people who had finished their bachelor's degree or their bachelor´s validation exam.

Saber 11 test is composed of five (6) tests, each one focused on one ability Critical reading, Maths, Social sciences and citizens, Natural Sciences, English and Socioeconomic questionnaire. It is also important to know that the exam is composed, in terms of material, by a booklet, a question sheet, and an operations sheet.

About the questions contained inside the booklet, it is managed the next structure for them, "The exam uses multiple-choice questions with a single response that are formed by a statement (which presents a situation, image, context, text, etc.), the formulation of an assessment task (what the student is asked to do), and several response options, of which only one is valid to answer the proposed task" (ICFES, 2018, p. 12).

**4.3.2 Kind of Questions.** The Saber 11 Test is divided into four kinds, one for general people and another three exams for the population in a situation of disability. The first exam, for the general population, contains two sessions of four and a half hours, each one has different sections and a specific number of questions per area, this is shown in the next chart:

| Prueba | | Preguntas por prueba | Total de preguntas por sesión | Tiempo por sesión |
|---|---|---|---|---|
| Primera sesión | Matemáticas 1 | 25 | 131 | 4 h y 30 min |
| | Lectura Crítica | 41 | | |
| | Sociales y Ciudadanas 1 | 25 | | |
| | Ciencias Naturales 1 | 29 | | |
| | Cuestionario socioeconómico 1 | 11 | | |
| **Prueba** | | **Preguntas por prueba** | **Total de preguntas por sesión** | **Tiempo por sesión** |
| Segunda sesión | Sociales y Ciudadanas 2 | 25 | 137 | 4 h y 30 min |
| | Matemáticas 2 | 25 | | |
| | Ciencias Naturales 2 | 29 | | |
| | Inglés | 45 | | |
| | Cuestionario socioeconómico 2 | 13 | | |

Figure 3. Application structure for the general population. Taken from ICFES. (2018). Guía de orientación Saber 11° para estudiantes. (primera edición).

In the second group of exams, there is the one applied to a population with a cognitive or visual disability, other to the population in a situation of hearing disability and the third to a population with motor disability. Each one of them has distinctive characteristics, as the number of questions and the way to present it, defined by the circumstances necessaries to present the exam.

This next figure shows the questions structure for cognitive and visual disability participants of the exam, it should be noted that this population is exempt from presenting the English test according to the resolution 457 of 2016.

| Prueba | | Preguntas por prueba | Total de preguntas por sesión | Tiempo por sesión |
|---|---|---|---|---|
| **Primera sesión** | Matemáticas 1 | 18 | 86 | 4 h y 30 min |
| | Lectura Crítica | 28 | | |
| | Sociales y Ciudadanas 1 | 18 | | |
| | Ciencias Naturales 1 | 22 | | |
| **Segunda sesión** | Sociales y Ciudadanas 2 | 16 | 56 | 4 h y 30 min |
| | Matemáticas 2 | 20 | | |
| | Ciencias Naturales 2 | 20 | | |

Figure 4. Application structure for cognitive and visual disability population. Taken from ICFES. (2018). Guía de orientación Saber 11° para estudiantes. (primera edición).

Then, there is the questionnaire structure to hearing disability population which is accompanied and advised by the National Institute for the Deaf[5] (INSOR) adapted to the necessities of this population making a translation to signal language or with the possibility to answer it by PC, this option will be available from the second semester of this year. Figure 5 shows the questionnaire structure for the deaf population.

| Prueba | | Preguntas por prueba | Total de preguntas por sesión | Tiempo por sesión |
|---|---|---|---|---|
| **Primera sesión** | Matemáticas | 40 | 76 | 4 h y 30 min |
| | Sociales y Ciudadanas | 36 | | |
| **Segunda sesión** | Lectura Crítica | 30 | 74 | 4 h y 30 min |
| | Ciencias Naturales | 44 | | |

Figure 5. Application structure for hearing disability population. Taken from ICFES. (2018). Guía de orientación Saber 11° para estudiantes. (primera edición).

Lastly, the population with a motor disability is contained too in these specifications having special conditions to the exam receiving support according to the type of disability presented by the student for the manipulation of the examination material.

[5] Instituto Nacional para Sordos in spanish

***4.3.2.1 Testing Areas.*** The exam assesses six knowledge areas described as in the following: Critical reading, Maths, Social sciences and citizens, Natural Sciences, English Language and Socioeconomic Questionnaire. Each one of them has a structure which is suitable according to the subject and assessing capacity that the exam required of the student. ICFES describes the particularities of each one of these sections of the exam in order to give to participants the tools needed to be prepared before the exam.

*4.3.2.1.1 Critical Reading.* The test evaluates in this part the ability to comprehend, understand and asses texts from casual and academical contexts non-specified. It is expected of students the ability to take critical postures from the texts. While the use of two kinds of texts: continuous and discontinuous texts. The first is read in a sequence containing phrases, paragraphs, sections, chapters, etcetera; the second ones are not read sequentially and has charts, graphics, and tables, etc. (ICFES, 2018, p. 15).

In the following chart (figure 6) will describe the selection of texts used in this part of the test.

| | Literarios | Informativos (descriptivos, expositivos, argumentativos) |
|---|---|---|
| **Continuos** | Novela, cuento, poesía, canción, dramaturgia. | Ensayo, columna de opinión, crónica. |
| **Discontinuos** | Caricatura, cómic. | Etiqueta, infografía, tabla, diagrama, aviso publicitario, manual, reglamento. |

Figure 6. Distribution of texts in a critical reading section of Saber 11 Test. Taken from ICFES. (2018, p. 15). Guía de orientación Saber 11° para estudiantes. (primera edición).

*4.3.2.1.2 Maths*. The maths tests of Saber 11° Test assess the student's competencies to face situations that could be solved while the use of maths tools defined by Basic Standards of Mathematics Competencies of the Ministry of National Education (MEN, 2006). Integrating these contents and competences from different situations and contexts where maths skills and knowledge are an important part to comprehend the situations, the transformation of information, the justification of information and problems solving. (ICFES, 2018, p. 16).

This test assesses three competencies as first *Interpretation and Representation*, second *Formulation and Execution* and third A*rgumentation*. Each one of them is an important part of the test in this section. *Interpretation and Representation* allude to the ability to transform and represent son tables, graphics, data sets, diagrams, etc. extracting information from these sources in order to get information and transform it in maths data establishing relationships, patterns, and tendencies. *The formulation* is about the capacity of the student to pose and design strategies to solve problems from diverse contexts whether from clearly maths or daily life, it is also related with the ability or skill to select and verify the relevance of proposed solutions to problems in different points of view. Then *Argumentation* it is related with the ability to validate or refute

conclusions, strategies, solutions, interpretations, and representations in diverse situations giving reasons of why, how these conclusions were reached using examples and counterexamples.

These elements are divided into this category according to some percentages describes in figure 7.

| Competencia | Porcentaje de preguntas |
|---|---|
| a. Interpretación y representación. | 34 % |
| b. Formulación y ejecución. | 43 % |
| c. Argumentación. | 23 % |

Figure 7. Distribution of competences in Maths section of Saber 11 Test. Taken from ICFES. (2018, p. 21). Guía de orientación Saber 11° para estudiantes. (primera edición).

*4.3.2.1.3 Social Sciences and Citizenship.* This exam assesses the ability of students to analyze their social world from social sciences perspective exercising his civic work. It also evaluates the capability to analyze different events, arguments, positions, concepts, models, dimensions and contexts, as well as their ability to reflect and make critical judgments about them. (ICFES, 2018, p. 24).

Three basic competencies are assessed in this test based on "Estándares Básicos de Competencias en Ciencias Sociales y Competencias Ciudadanas" (Ministry of National Education, 2016).

The competencies contained in this module are *Social Thinking* which is the one that values the capacity to use basic concepts from social sciences that allows comprehension of social, political, economic, cultural and geographical problems and phenomena. So, in one part, the questions from this competence face student to some social situations using basic knowledge from social sciences. Another part of this competence is the students´ knowledge about the Rule of Law, the Citizen constitutional rights and duties; the organization of the State; the functions and scope of the different branches of power and control organisms; and the basic framework that supports citizen participation in Colombia.

*Interpretation and analysis of perspectives* use information that circulates about political, economic and cultural issues to rate arguments and explanations about social problems and to identify diverse interests, opinions and perspectives from diverse actors in society. Also, it makes reference to the students´ ability to think analytically and critically about problematics and social phenomena.

Finally, *Reflective and systemic thinking* is the capacity to comprehend the social reality recognizing different ways to approach problems, to identify relationships, advance inquiry processes flexible and reflective and take critical positions against the use of social sciences. (ICFES, 2018, p. 25).

*4.3.2.1.4 Natural Sciences.* This test assesses the capacity of the student to understand and use notions, concepts and theories of the natural sciences in problem-solving. It also evaluates the ability to explain how some phenomena of nature occur based on observations, patterns and own concepts of scientific knowledge. Taking into account the "Estándares Básicos de Competencias (2006)" highlights the scientific knowledge and science as a social practice. (ICFES, 2018, p. 28).

There are three competencies evaluated in this section based on "Estándares Básicos de Competencias en Ciencias Naturales" published by (Ministry of National Education, 2016). First, *Comprehensive use of scientific knowledge* is conceived as the capacity to comprehend and use notions, concepts and theories from the natural sciences in problem-solving stabilizing relationships between concepts and knowledge acquired, and phenomenon frequently observed. Second, there is the *Explanation of phenomena* which is defined as the capacity to build explanations comprehending arguments and models that give reason to phenomenon related to a scientific problem. Finally is *Inquiry* attaches student to modify the knowledge to train scientifically literate citizens and this competence covers the 40 per cent of questions to comprehend that from scientific research we build descriptions about the natural world (ICFES, 2018, p. 29).

*4.3.2.1.5 English Language*. The English language test assesses the ability of the student to communicate them effectively in this language aligned with **"**Common European Framework of Reference**"** (CEFR), this classifies the student in five (5) levels: A-, A1, A2, B+, B2. According to the language proficiency in Colombia, ICFES established minimum levels of language as A- to the lower levels than A1 and also B+ to the students whose are upper that the B1 level. The tests are looking to demonstrate the communicative skills in reading and language use (ICFES, 2018, p. 32).

The test has seven (7) parts, each part evaluates a specific ability and is associated with a number of questions.

| Parte | Porcentaje de preguntas |
|---|---|
| 1 | 11 % |
| 2 | 11 % |
| 3 | 11 % |
| 4 | 18 % |
| 5 | 16 % |
| 6 | 11 % |
| 7 | 22 % |

Figure 8. Distribution of Questions in English Test of Saber 11 Test. Taken from ICFES. (2018, p. 33). Guía de orientación Saber 11° para estudiantes. (primera edición).

In part one, the students have to recognize the communicative purpose of an advertisement, five (5) advertisements are presented to the students and they have to decide where would be able to find them. Part two evaluates the lexicon from students, they have to understand a list of descriptions to be related than with a list of words. On one side students find eight (8) words and the student have to look for the relationship between the words and the descriptions presented on the other side of the list named with letter fon (A – H), there are more words than the ones that students need. (ICFES, 2018, p. 32).

Part three assesses the communicative skills of the student choosing the most suitable answer to some five (5) conversations in particular situations related to the language relevance present in short conversations. Part four uses a text to evaluate the grammatical knowledge of students choosing words to complete some spaces in the text selecting between (A, B, C) with the correct word. Fifth Part is about a reading comprehension exercises selecting the appropriate paraphrases from the text and chooses the correct option, between three possible (A, B, C) in the answers sheet. (ICFES, 2018, p. 34).

Sixth Part is based on a text where student have to make an inferential reading, are posted some questions about the author´s intention and general and particular aspects of the text and the student have to choose an option between four possible options (A, B, C, D) for each question in the answers sheet. Finally, Seventh Part assesses the grammatical and lexical knowledge from the student, the exercise consists in choose the correct word from the options (A, B, C, D) present for each question. (ICFES, 2018, p. 34).

**4.3.3 Performance Levels in English Exam.** The performance levels were established with the aim of complementing the numerical score given to the students in the exam. (ICFES, 2018, p. 35). These levels group the students according to their performance in each test (Critical Reading, Maths, Social Sciences and citizenship, and Natural Sciences). The English Language test is aligned with the Common European Framework of Reference (CEFR) classifying examinees in five (5) performance levels: -A, A1, A2, B1 and B+.

Comentado [AR3]: porque esto en negrilla

The next chart describes the competencies required to classify students in the mentioned levels according to the (CEFR).

| PERFORMANCE LEVELS | SCORE IN THE TEST | DESCRIPTION |
|---|---|---|
| **-A** | 0 to 47 | • The student classified at this level does not pass the less complex questions of the test. |
| **A1** | 48 to 57 | • The student is able to comprehend and use the everyday expression of frequent use, as well as simple phrases intended to satisfy immediate needs.<br>• The student can present himself and others, ask for and give basic personal information about your home, your belongings and the people you know.<br>• The student can interact in an elementary way with your interlocutor as long as he speaks slowly and clearly and is willing to cooperate. |
| **A2** | 58 to 67 | • The student is able to understand phrases and expressions of frequent use related to areas of experience that are especially relevant to him (basic information about himself and his family, purchases, places of interest, occupations, etc.).<br>• The student knows how to communicate when carrying out simple and daily tasks that do not require more than simple and direct exchanges of information on issues that are known or usual.<br>• The student knows how to describe in simple terms |

| | | |
|---|---|---|
| | | aspects of his past and his surroundings, as well as questions related to his immediate needs. |
| **B1** | 68 to 78 | • The student is able to understand the main points of clear texts and in the standard language, if they deal with issues that are known to him, whether in work, study or leisure situations.<br>• Knows how to handle most of the situations that may arise during a trip through areas where the language is used.<br>• He is able to produce simple and coherent texts on topics that are familiar to him or in which he has a personal interest.<br>• He can describe experiences, events, desires and aspirations, as well as briefly justify his opinions or explain his plans. |
| **B+** | 79 to 100 | • The average student classified in this level overcomes the most complex questions of the test. |

Figure 9. Performance Levels in English Test of Saber 11 Test. Taken from ICFES. (2018, p. 44 - 45). Guía de orientación Saber 11° para estudiantes. (primera edición).

Each performance level contains a qualitative description of the abilities according to the level and the ability and knowledge developed in the test, those skills are in the right column and manage the classification of the students to give them a level by the use of their English skills in the test. These levels perform the ICFES test and the project is based on the European Common Framework (CERF) and to this document is relevant in the performance levels for English Language Test.

The classificatory levels are –A, where students´ are not able to answer simple questions; A1 is for the students who have the Basic English concepts about grammar and reading giving as result an elementary way to perform and use their English language knowledge.

Then, A2 contains the students that are able to express their likes and dislikes adding to these their opinions, their daily routine including simple task and duties and also their past, surroundings or familiar places and their direct needs.

B1 has the ability to understand a text with the principal and most important information from this with situations of direct and real use of the language and real facts or plans for their future desires and aspirations. Finally, There is B+, the space where are involved the students overcome and answer most difficult and challenging questions in the test.

## 5. Data Analysis

In order to carry out a proper use of the data collected in the period used to apply the project, the participants were informed while a meeting in English class space. They got all the information about the work that they develop during the course as chronogram, activities that were developed in the platform, purposes, and objectives of the project and agreements were agreed on the working methodology in certain points as schedule and communication apps and percentage of incidence in English class final grade. They agreed with both teachers and there was a band of questions and doubts about this project. This same process was developed with the students´ parents in a meeting.

### 5.1. Participants

The principal purpose of this project was to describe the influence of preparatory programs while the use of Moodle. In this case, the focus group was defined by the kind of exam that was applied to the students. For the purpose of creating and collect information for the study, the groups of participants are located inside the following conditions.

The internship was applied at a public school located in Bogota, Colombia. This school is located in a dangerous zone of the city where students come to school in varied situations. Classrooms were small and there were many students according to space, digital resources as computers did not totally implement in the school for different reasons.

The place selected for this study is a public school, located in the south part of Bogotá. The school is situated in a stratum three neighbourhood near to a university and some other educational institutions. The school has two venues, A and B venue, B is dedicated to primary and A is for secondary students counting on the days of morning and afternoon in both venues.

The “A venue” has from sixth grade to eleven, each grade has English classes in their curriculum during the week with a duration of two hours per session. Apart from their schedule inside the school, they have extracurricular activities and web space use by teachers to assign activities to do at home.

The Moodle platform is host in a school’s web space, where students had courses related to every subject taught in school. Apprendetorium web space was created there grouping eighty students from 1101 and 1102 from the morning schedule in two groups from 40 students. The participants received activities in Facebook and Hangouts, which will be explained in posterior sections of this document.

**5.2. Methodology**

This chapter will explain the procedures and methodology applied in this internship according to the necessities of the institution. The project was developed in person at the "A" headquarters of the school and virtually through the Moodle platform administered by the school. The resources used for the purpose of this project were the schools´ Moodle platform to upload and grade the questionnaires, the English classroom of the school to have meeting and classes with

the students, a group on Facebook to share information by posts, Hangouts Mobile app on students´s cell phones to have conversational clubs with participant of the project and finally the basic suite of programs contained in every computer as Microsoft Office, default internet browsers (Google Chrome - Mozilla Firefox) and Internet connection at students houses or school.

The following chronogram is presented as the first stage of the process, containing the activities and practices that were developed during the internship. The dates and hours proposed were modified depending on how the internship took place, and if there were any events or situations during it.

The dates were a divide into two different: hours spent in work inside the school and creating the Moodle space out of school; and hours spent creating the written report. All of these dates are specified in the following chart, giving us as result three hundred eighty-four (384) hours spent.

| DATE | DESCRIPTION | | | HOURS SPEND |
|---|---|---|---|---|
| | **TEACHER´S ROLE** | | **STUDENTS' ROLE** | |
| | **PEDAGOGICAL** | **RESEARCHER** | | |
| **Week 1** | Observer | Design of observation´s rubric | Develop classes as always | 12 |
| **Week 2** | | Observe the specific grades where the web space will be applied to identify the different roles inside the classroom | | 12 |
| **Week 3** | | Analysis of data collected | | 12 |
| **Week** | | Observe the English | | 12 |

| | | | | |
|---|---|---|---|---|
| **4** | | classes in some grades to compare the topics developed by teachers with the level required by ICFES standards for each exam. | | |
| **Week 5** | Web Designer | Design and creation of the blog | Students are going to learn how to use the blog | 25 |
| **Week 6** | | Design and creation of spaces for each grade | Create a profile and login in their specific group inside the web space. | 25 |
| **Week 7** | | Design and creation of materials | Exploration of new materials | 25 |
| **Week 8** | Line based test application | Analyze the Line Based Test results | Develop lined based test | 25 |
| **Week 9** | Review and 1st topic workshop about previews knowledge | Analysis of data collected | Develop 1st topic workshop about previews knowledge | 13 |
| **Week 10** | 2nd topic workshop | Analyze the 2nd topic workshop | Develop 2nd topic workshop | 13 |
| **Week 11** | 3rd topic workshop | Analyze the 3rd topic workshop | Develop a 3rd topic workshop | 13 |
| **Week 12** | 1st Reinforce workshop about evaluation topics | 1st evaluation analysis of results | 1st evaluation of previews workshops | 13 |
| **Week 13** | 4th topic workshop | Analyze the 4th topic workshop | Develop 4th topic workshop | 13 |
| **Week 14** | 5th topic workshop | Analyze the 5th topic workshop | Analyze the 5th topic workshop | 13 |
| **Week 15** | 2nd evaluation design about previews workshops | 2nd evaluation analysis of results | 2nd evaluation development about previews workshops | 13 |
| **Week 16** | 2nd Reinforce workshop about evaluation topics | 2nd Reinforce Analysis of results | 2nd Reinforce workshop development | 12 |

| | | | | |
|---|---|---|---|---|
| **Week 17** | Application of final evaluation | Final Collection of data | Development of final evaluation | 12 |
| TOTAL HOURS | | | | 263 |
| *HOURS SPENT IN WRITING WORK: | | | | 121 |
| **AVERAGE HOURS SPENT** | | | | 384 |

Figure 10. Chronogram of hours and topics in the project. Own elaboration.

Some observations were developed to saw and took a record of the development that students had in relation to methods, techniques, approaches, perspectives. Some other material related to knowledge, which students needed to know for standardized tests, as soon as the observation part had concluded.

Then, in several face-to-face meetings at the school, students and parents were informed about the rights and duties acquired during the process, creating pacts and concerning important points as, times to upload and answer the questionnaires, days to meet with the teacher at Hangouts and ways to make and solve questions from participants.

The creation of the Questions Bank was the next stage in the process, but the process began with a Lined Based Test designed with elements taken from the B2 level proficiency test, in this test students answered some questions about grammar and reading skills in order to have an idea about the level presented by the students. This test was applied while the use of Google Docs, as an easy way to create questions and gather information.

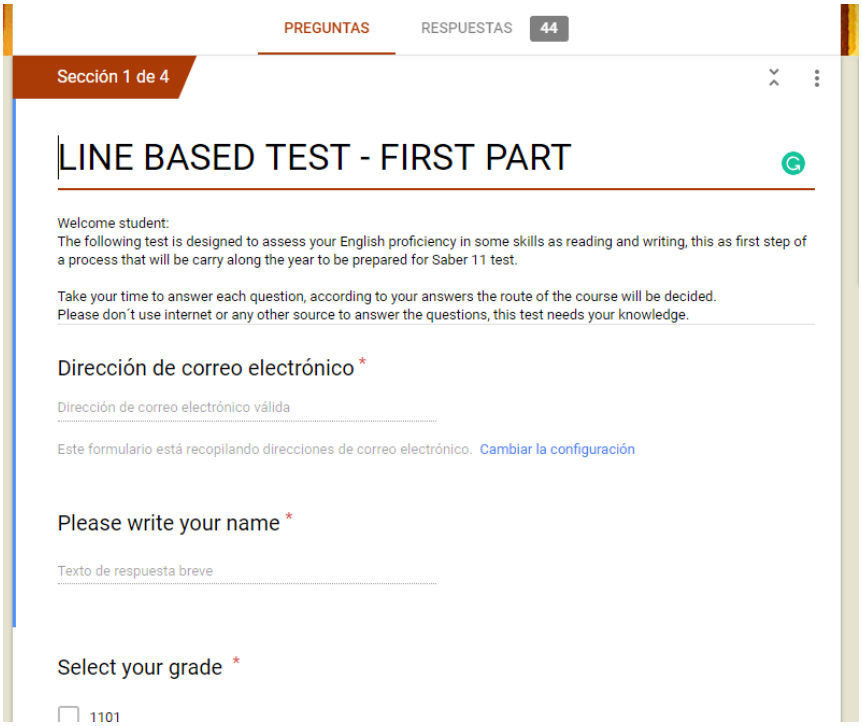



Figure 11. Lined Based Test. Picture took from https://goo.gl/forms/6xJ9a9fKRjclhCW43

Then, students received the link by Facebook, while the use of Facebook groups created by two students and administered by the teacher, in this groups they had all information about the course in order to manage an effective communicative system between teachers and students.

Figure 12 shows the posts related to the project, Inviting students to answer the Lined Based Test.

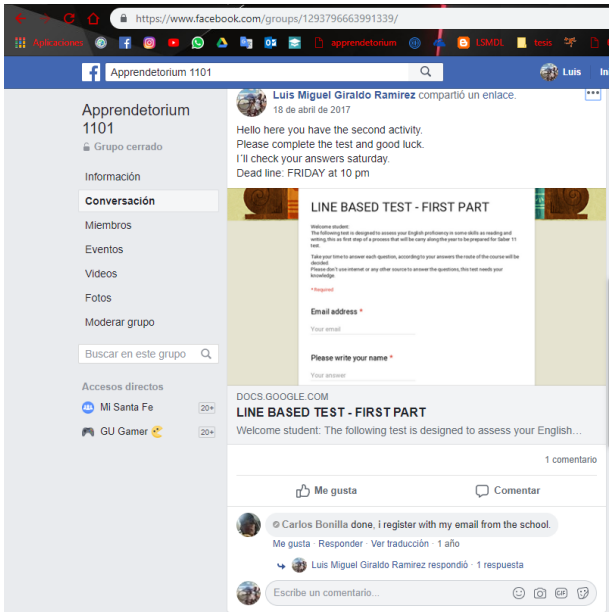



Figure 12. Post from Facebook Group.

**5.2.1. Moodle.** The Moodle platform was inaugurated and the first questionnaire was uploaded, weekly the students received a new questionnaire. To exercise their English proficiency in writing skill while the use of the different tools available on Moodle. It is important to Highlight that each student had a profile and username for the platform assigned by the school and this was used in Apprendetorium.

In figure 13 is presented the Introduction to the course and the links to the workshops.

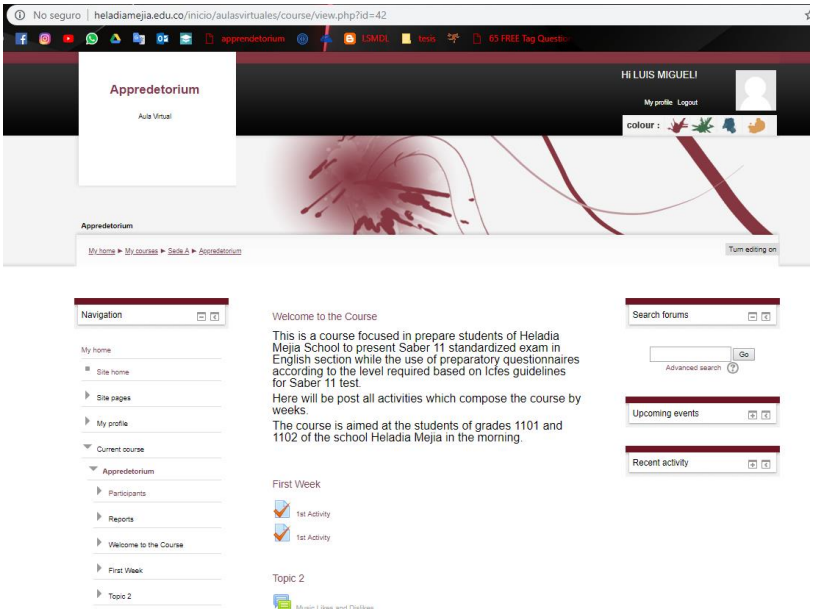



Figure 13. Principal page from Apprendetorium Web Space.

Most of the questionnaires had and structure based on maximum five questions with a component which consisted in writing extract created by the student as a daily routine wrote by the student, then answering some different kinds of questions presented in Saber 11 test preparatory courses to familiarize the student with this kind of material.

In the project was created and designed a web space material, that was digitalized and uploaded to specific places where students were able to found it to be used by them on specific dates. The third part integrated the application of different tests in the web spaces in order to

evaluate the diverse abilities of students; some evaluations of the process were developed in the dates assigned in the chronogram to gather data about advances in terms of formation and results within the range of application, this is showed in figure 14.

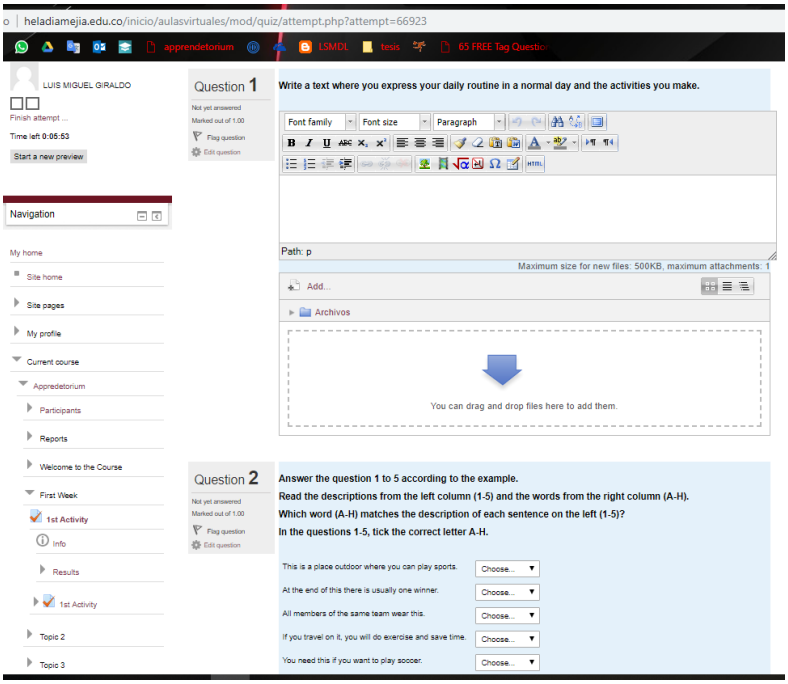



Figure 14. First workshop questions and exercises. Taken from Apprendetorium.

It also contained discussion topics as a way to enrich and promote the use of grammar and the study and correction of mistakes, all of these discussing with teachers and other students about topics of their interest as “music likes and dislikes” as is showed in figure 15.

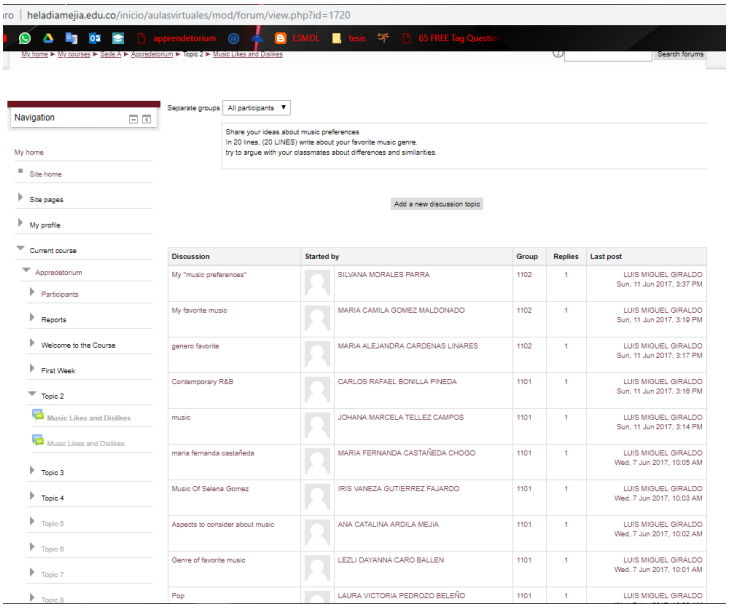



Figure 15. Forum responses in Apprendetorium.

**5.2.2. Hangouts.** Another important part of the project was "Hangouts"**,** this app allowed us to communicate between students and teacher in groups of twelve students discussing and discussing topics stated by teacher and students as a way to manage and practice their oral fluency in speaking skill.

Students created a profile in the app and one day per week they had a session with the teacher in order to develop and share their ideas giving their opinions about the topic in speaking supervised by a teacher. Figure 16 shows the interface of this app and some conversations with students about some topics of discussion in "conversational club".

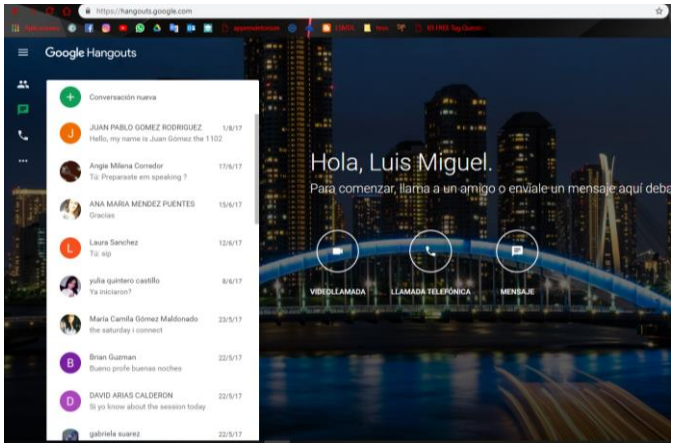



Figure 16. Hangouts profile page.

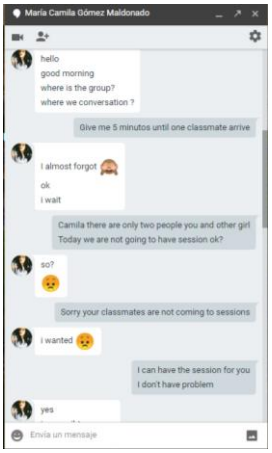



Figure 17. Web conversation with a student in Hangouts.

In terms of pedagogical intervention and the methodology implementation of the project, there are some important aspects which must be specified and detailed in this document. Taking into account the accompaniment of the teacher in the process assisting to the school answering questions and doubts to students.

This process also implied the meetings with teachers and school directives to create agreements and supervise the process while this was developed by the community. Finally, the addition and development of these elements yielded results which must be analyzed and described in depth in this document to evaluate the impact of this project and thus fulfil the general objective of this internship.

### 5.3. Sample Analysis

The kind of work developed in this project has to be described in terms of the kind of research and the importance of theoretical and practical elements inside this project. To fulfil the objectives of this research, it is mandatory to describe and explain from Mixed Research giving a detailed overview of this project.

The first element that guides this intervention, as the objective states in previous chapters, is to analyse the effects of Web Spaces as Moodle as an educational and environmental tool in the preparatory processes for secondary students. This project took into account The Mixed research takes into account "… The principal study results derive from the integration of qualitative and quantitative data during analysis" (Creamer, 2017). Public schools present an important problem

related to the preparatory process that students need to achieve to present better results and web spaces are an innovative and useful resource that could ensure and increase the standards of accomplishment in English proficiency.

Mixed research in this project includes the triangulation of qualitative and quantitative methods according to the different kinds of data gathered in this project to study acceptability, integrity, and effectiveness of intervention methods as both a formative and summative process (as cited in Creamer, 2017). Using the data collected from the different instruments, the information will be based on the proves and real facts product of the researching process.

According to my role as investigator and based on Freeman (1988), the techniques for collecting the data are chosen in relation to the kind of data that participants and activities that data collection techniques proposed by Freeman. This is suitable for the participants and kind of activities in the projects, the aim of this section is to generalize beyond the data and collect information while the use of the next techniques to gather information.

Line Based Test is the first element in data analysis, collecting the results in this test to give an initial guide in terms of methodology inside web space starting from the English proficiency level. Some of the answers obtained from the results in Google Docs, as the acceptability of the project in the first activity, figure 18 and 19 shows the number of students that answered the questionnaire.

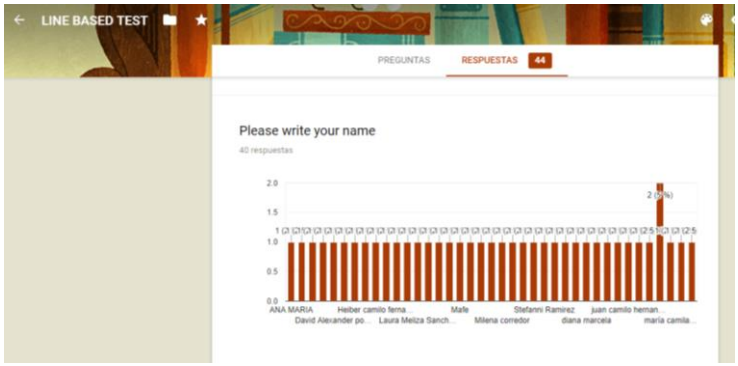



Figure 18. Percentage of attempts realized by students.

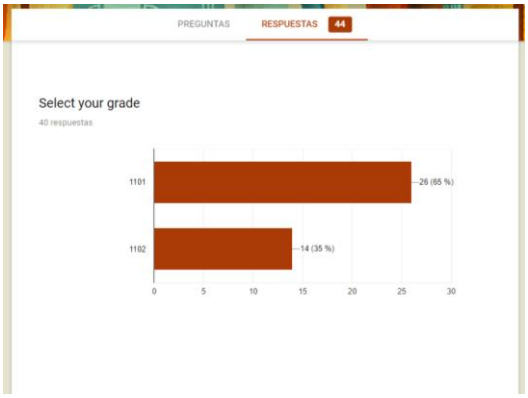



Figure 19. Percentage of students in results according to their grade.

According to the number of students answered the Lined Based Test, Forty-four (44), half of the complete amount of students subscribed to the project, eighty (80). Thirty-six (36) of them

did not check their first workshop. Despite this, the analyzes based on the following results were useful to get an idea about the level in the English language present in the group.

In Figure 20 there are some pie chart

Comentado [AR4]: por favor separe cada una de las gráficas e interprete

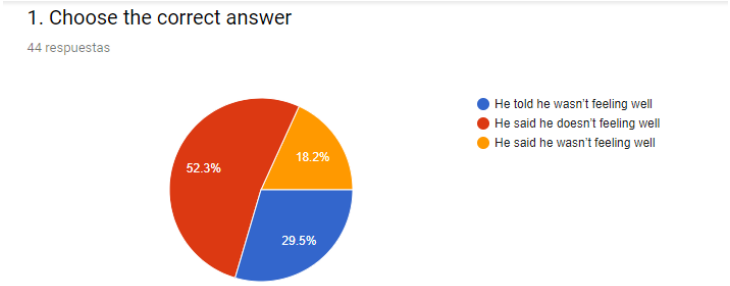



Figure 20. Results obtained in Lined Based Test in the grammar section.

In this figure 20 the students had to choose the correct answer from three possible options where each one of the is the possible correct answer, but only one them is the correct. The results show that the 52.3 % choose the second options as the correct answer and the other two options received the 29.5%, this one incorrect according to the verb told, and the other 16.2% as the correct answer of the question. This show to the teacher the lack of grammar expertise in students.




Figure 21. Results obtained in Lined Based Test in the grammar section.

In Figure 21, the results change different from the first pie chart the 43.2% of students obtained the correct answer. The other two answers obtained 29.5% and 27.3% and those were incorrect answers. Indicating to the teacher that there are some questions that obtained less than the 50% of students, respectively the 56.8% of the students had the incorrect answer.

Those are the percentage of answers obtained in the questionnaire in most of them the percentage of correct answers is half of the participants, suggesting an important lack of grammar awareness according to the competences of a B2 level in CEFR.

The second element in data analysis is the Students Artefacts, taken from the Moodle web space; this is the most important at this stage of the process because the advances in the project will be visible and tangible, in this part students show how much the platform and the material designed are affecting the learning process within the process.

Moodle activities in Apprendetorium showed to us the effectiveness of Web spaces like a valuable and real way to asses students in other contexts and using tools presented to us as distractors. School uses this spaces as a practical way to make final exams and quizzes to students, but there are much more elements and issues that can be used in preparatory classes.

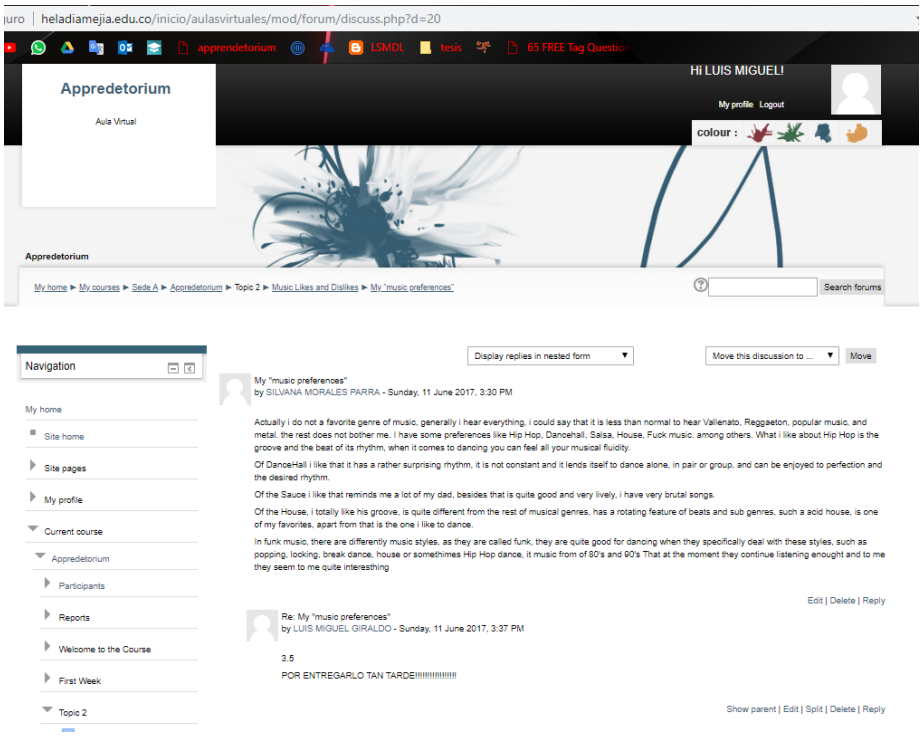



Figure 21. Writing exercise developed in a fórum discussion by a student.

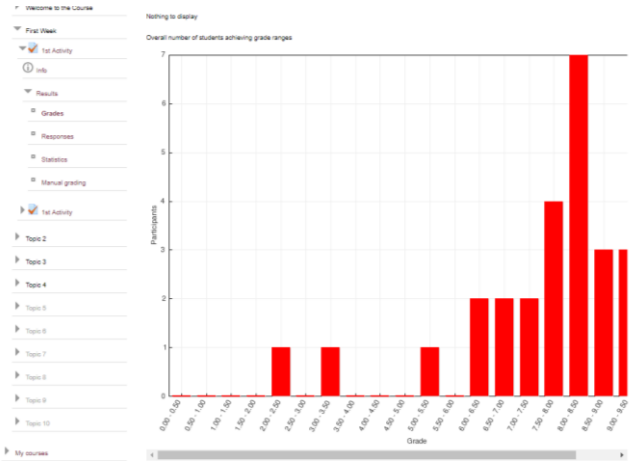



Figure 22. responses of students according to the hour of the day.

Students showed an acceptance to this exercise as a way to express their ideas and manage their English language proficiency while the use of spaces where their answers are secret and just teacher can suggest or congratulate students according to their performance.

This factor gives to the web spaces as Moodle the anonymity as a sign of confidence between both actor inside the process, enhancing students to participate in greater proportion. Also taking into account the repetitive cases where participants of web programs in education give up from their studies because of a lack of motivation and compromise from themselves.

But in this school, there is an advantage supported in teachers that were informed of the process, supporting students and the passant teacher in all the process to ensure the best possible results obtained from this program.

Finally, the most telling proof in terms of results and improvements obtained by the program, are the results of the school in the Saber 11 test. Shown in the next figures, these images show us the incidence and affectation to students while the use of this platform.

**7.2 Porcentaje de estudiantes por niveles de desempeño en Inglés**

| Nivel de agregación | A- | A1 | A2 | B1 | B+ |
|---|---|---|---|---|---|
| Establecimiento educativo (EE) | 22% | 41% | 27% | 9% | 0% |
| Sede 1 | 22% ● | 41% ● | 27% ● | 9% ● | 0% ● |
| Sede 1 / Jornada 1 | 26% ▼ | 39% ▲ | 27% ● | 9% ● | 0% ● |
| Sede 1 / Jornada 2 | 17% ▲ | 46% ▼ | 26% ▲ | 11% ▼ | 0% ● |
| Colombia | 36% ▼ | 33% ▲ | 19% ▲ | 10% ▼ | 2% ▼ |
| ETC | 22% ● | 32% ▲ | 26% ▲ | 17% ▼ | 4% ▼ |
| Oficiales urbanos ETC | 29% ▼ | 39% ▲ | 24% ▲ | 8% ▲ | 1% ▼ |
| Oficiales rurales ETC | 40% ▼ | 36% ▲ | 20% ▲ | 4% ▲ | 0% ● |
| Privados ETC | 12% ▲ | 23% ▲ | 28% ▼ | 29% ▼ | 8% ▼ |
| GC 1 ETC | 42% ▼ | 33% ▲ | 25% ▲ | 0% ▲ | 0% ● |
| GC 2 ETC | 43% ▼ | 39% ▲ | 16% ▲ | 2% ▲ | 0% ● |
| GC 3 ETC | 24% ▼ | 36% ▲ | 27% ● | 12% ▼ | 1% ▼ |
| GC 4 ETC | 4% ▲ | 11% ▲ | 24% ▲ | 44% ▼ | 16% ▼ |

N.D.: no hay información disponible.

Figure 23. Results in Saber 11 test according to the performance levels in English. (2016)

**7.2 Porcentaje de estudiantes por niveles de desempeño en Inglés**

| Nivel de agregación | A- | A1 | A2 | B1 | B+ |
|---|---|---|---|---|---|
| Establecimiento educativo (EE) | 34% | 31% | 22% | 11% | 1% |
| Sede 1 | 34% ● | 31% ● | 22% ● | 11% ● | 1% ● |
| Sede 1 / Jornada 1 | 34% ● | 31% ● | 22% ● | 11% ● | 1% ● |
| Colombia | 44% ▼ | 30% ▲ | 16% ▲ | 8% ▲ | 2% ▼ |
| ETC | 29% ▲ | 32% ▼ | 23% ▼ | 13% ▼ | 4% ▼ |
| Oficiales urbanos ETC | 38% ▼ | 37% ▼ | 19% ▲ | 6% ▲ | 1% ● |
| Oficiales rurales ETC | 52% ▼ | 30% ▲ | 15% ▲ | 3% ▲ | 0% ▲ |
| Privados ETC | 16% ▲ | 25% ▲ | 28% ▼ | 23% ▼ | 8% ▼ |
| GC 2 ETC | 50% ▼ | 34% ▼ | 12% ▲ | 3% ▲ | 0% ▲ |
| GC 3 ETC | 29% ▲ | 35% ▼ | 25% ▼ | 10% ▲ | 1% ● |
| GC 4 ETC | 3% ▲ | 11% ▲ | 27% ▼ | 39% ▼ | 20% ▼ |

N.D.: no hay información disponible.

Figure 24. Results in Saber 11 test according to the performance levels in English. (2017)

Figures 23 and 24 compares the results obtained by the school in 2016 and 2017, showing firstly the absence of B+ students in 2016 and the increase of these in 2017 in 1%; also the increase from 9%, in 2016, to 11% in 2017 in B1 Level. Showing the incidence of these program in the preparation of students with high levels of interest.

It also shows us the increase of –A from 2016 to 2017, given to the researcher a clue about the results of these students who did not participate in the process may be a reason to explain this increase in lower performance levels inside the exam. Contrasted with the increase of students in the A1 level of 10%, from 31% to 41%, showing that the basic level of English is the second highest result in this exam compared with the last year.

The results obtained from this internship are not completely conclusive in order to identify the factors or precise reasons for the performance of students, but they show an improvement in the higher performance levels, giving to this program the compromise to create more materials and better strategies to teach English and prepare students to this standardized tests.

**Comentado [AR5]:** faltan las conclusions personales, profesionales y sobre el trabajo

Personally, this project is a primary step in a long way to create spaces where students can achieve higher levels of performance in Standardized Tests, but only if the students and the schools create spaces to give more importance and utility to these kind of courses,

Professionally, the project carried here was an useful and indispensable tool to assess the processes carried out inside classrooms and preparatory spaces for Saber 11 Tests, especially teachers are the most benefited from this kind of spaces transforming the schools in an entity

capable of prepare students to life inside and outside retroactively for the later use of these same projects in favour of the improvement of education.

Finally, this project show to the reader the power and utility of the preparatory web spaces as Moodle in the learning processes while the use of standardized exams. We create facilities in school to students and teacher managing the time and knowledge according to the needs of the community, all of these supported by an constant accompaniment by the teachers and directives to create support and support links for education, with responsibility and support of all the entities involved, huge results can be achieved.

**Referencies**

Baños, J. (2013). La Plataforma Educativa MOODLE: *Creación de Aulas Virtuales.* Madrid: IES Satafi (Getafe).

Bicen, H. Sadıkoglu, S. Sadıkoglu, G. (2015). THE IMPACT OF SOCIAL NETWORKS ON UNDERGRADUATE STUDENTS LEARNING FOREIGN LANGUAGE. *Procedia - Social and Behavioral Sciences, 186*(1), 1045-1049. Retrieved from http://www.sciencedirect.com/science/article/pii/S1877042815023320

CASTRO, J. (2012). Learning and Teaching Art Through Social Media. *Studies in Art Education, 53*(2), 152-169. Retrieved from http://www.jstor.org.bdigital.udistrital.edu.co:8080/stable/24467884

Creamer, E. G. (2017). An introduction to fully integrated mixed methods research. Thousand Oaks, CA: Sage.

Corporación Colombia Digital. (2012 – 2015). Colombia Digital. Bogotá, Co.: Recuperado de https://colombiadigital.net/opinion/columnistas/los-numeros-de-las-tic/item/1468-educaci%C3%B3n-y-tic-algunas-estad%C3%ADsticas.html

Do Carmo, M. (2015). The Use of Social Media Resources in Advanced Level Classes in Nunan, D. (Ed.), Richards, J. (Ed.). (2015). Language Learning Beyond the Classroom. New York: Routledge.

FRANCIA, L., & MACKINNEY, A. (2016). BACKTALK: Let the teachers who know us, test us. *The Phi Delta Kappan*, *97*(8), 80-80. Retrieved from http://www.jstor.org.bdigital.udistrital.edu.co:8080/stable/24893344

Freire, P. (1998) *Pedagogy of freedom: ethics, democracy, and civic courage Lanham*: Rowman & Littlefield Publishers.

Fritzpatrick, A. (2004). Information and Communication Technology an Overview in Foreign Language Teaching and Learning. Information and Communication Technologies in the Teaching and Learning of Foreign Languages: State-Of-The-Art, Needs, and Perspectives. UNESCO. 10 – 26.

García, Estudillo, J. (2001). Surgimiento de la sociedad de la información. Biblioteca Universitaria Nueva Época. VOL. 4, (No. 2), P. 77-86

Graham, D. (2004). Aspects of Technology Enhanced Language Learning: a UK Perspective. Information and Communication Technologies in the Teaching and Learning of Foreign Languages: State-Of-The-Art, Needs, and Perspectives. UNESCO. 10 – 26.

Gawthrop, J. (2014). Measuring Student Achievement: A Study of Standardized Testing & Its Effect on Student Learning. William Jessup University. North Carolina, EE.UU. Retrieved from: http://my.jessup.edu/publicpolicy/wp-content/uploads/sites/39/2014/04/Gawthrop_Jeremiah_Final.pdf

Inayati, N. (2013). SYSTEMIC ANALYSIS OF TESOL PRACTITIONERS' USE OF SOCIAL MEDIA IN THE HIGHER EDUCATION SECTOR. *International Journal of Innovation in English Language Teaching and Research*, *2*(2), 193-207,242. Retrieved from https://search.proquest.com/docview/1625886305?accountid=34687

ICFES. (2018). Guía de orientación Saber 11° para instituciones educativas. (primera edición).

ICFES. (2018). Guía de orientación Saber 11° para estudiantes. (primera edición).

Kumaravadivelu, B. (2001). *Toward a Postmethod Pedagogy*. Tesol Quarterly. Vol. 35, (No. 4), P. 537 – 560

Motteram, Gary ed (2013). Innovations in learning technology for English language teaching. British Council (London)

Nunan, D. (2004). *Task-Based Language Teaching* (Cambridge Language Teaching Library)

Organización de las Naciones Unidas para la Educación, la Ciencia y la Cultura. (2010). El Impacto de las TIC en la Educación (17). Recuperado de http://unesdoc.unesco.org/images/0019/001905/190555s.pdf

OECD (2016), *Education in Colombia*, Reviews of National Policies for Education, OECD Publishing, Paris, http://dx.doi.org/10.1787/9789264250604-en.

Popham, W.J. (1999). "Why standardized tests don't measure educational quality". *Educational Leadership*. **56** (6): 8–15.

Richards, Jack C., and Rodgers, Theodore S. (2001). *Approaches and Methods in Language Teaching*. Cambridge: Cambridge University

Shohamy, Elena. (2013). Expanding the Construct of Language Testing with Regards to Language Varieties and Multilingualism. International Experiences in Language Testing and Assessment, Selected Papers in Memory of Pavlos Pavlou**.**

Siemens, George; Stephen Downes. (2009). Connectivism and Connective Knowledge. Retrieved.

Stanley, G. (2013). Integrating Technology into Secondary English Language Learning. Innovations in learning technologies for English language teaching. Volume 1 (1), 43 – 66.

Van Horn, R. (1997). Improving Standardized Test Scores. *The Phi Delta Kappan*, *78*(7), 584-585. Retrieved from http://www.jstor.org.bdigital.udistrital.edu.co:8080/stable/20405864

Valverde Berrocoso, J., & Garrido Arroyo, M., & Fernández Sánchez, R. (2010). Enseñar Y Aprender Con Tecnologías: Un Modelo Teórico Para Las Buenas Prácticas Con Tic. Teoría de la Educación. Educación y Cultura en la Sociedad de la Información, 11 (1), 203-229.

Visone, J. (2010). Science or Reading: What is Being Measured by Standardized Tests? *American Secondary Education, 39*(1), 95-112. Retrieved from http://www.jstor.org.bdigital.udistrital.edu.co:8080/stable/41406185