

**PROPOSAL TO STRENGTHEN READING COMPREHENSION SKILLS  
THROUGH METACOGNITIVE STRATEGIES IN ADVANCED STUDENTS  
MAJORING IN MODERN LANGUAGES AT LA GRAN COLOMBIA  
UNIVERSITY**

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*Une Langue Différente est une Vision de la Vie Différente*

*Federico Fellini*

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List of Acronym

CEFR: Common European Framework of Reference for Languages.

EFL: English as a Foreign Language

ESL: English as a Second Language

IETLS: International English Language Testing System

L1: Mother Tongue

L2: Second Language

MEN: Ministerio de Educación Nacional

OECD: Organization for Economic, Co-operation and Development

PISA: Programme for International Student Assessment

SABER PRO: Exámenes de Calidad de Educación Superior

TOEFL: Test of English as a Foreign Language

UNESCO: United Nations Educational, Scientific and Cultural Organization

**Abstract**

The main intention of this document is to relate the process of creating and designing a handbook to strengthen reading comprehension through infographics, as a learning aid; which will be focusing on metacognitive strategies that allows getting a productive learning process in students. This handbook will have the purpose to offer supporting to ESL advanced students, at La Gran Colombia University, who will take any international exam as a bachelor's degree requirement (C1, based on CEFR). This research applies to qualitative research methodology; it is focused on non-experimental design, with an explanatory scope. On the other hand, it is supported by different concepts and two theoretical bases; first it will take as a reference of reading comprehension, skills and strategies in L2 by Jeremy Harmer (2007), the second is regarding the Metacognition and Strategies, Ana Chamot (1999) and John. H, Flavell (1985), it also keeps the book CALLA in mind for this theoretical basis.

**Keywords:** Reading comprehension, infographics, second language, metacognitive strategies and English reading.

### Resumen

La principal intención de este documento es mencionar el proceso de creación y diseño de una cartilla que permitirá fortalecer la comprensión lectora, a través de infografías. Esta será una guía de aprendizaje para el estudiante, que tendrá como contenido estrategias metacognitivas las cuales permitirán obtener un proceso de aprendizaje productivo en estudiantes. Esta cartilla tiene como propósito dar un ofrecer una ayuda a estudiantes de segunda lengua (inglés), nivel avanzado de la Universidad La Gran Colombia, los cuales tendrán que tomar un examen internacional, propuesto por el MEN, como requisito de grado (C1, según el MCER). Esta investigación aplica a la investigación cualitativa; la cual está encaminada al diseño no experimental con un enfoque explicativo. Por otro lado, este proyecto tendrá un apoyo teórico en diferentes conceptos y dos bases teóricas; primero, cómo referencia de comprensión lectora, habilidades y estrategias en segunda lengua tenemos a Jeremy Harmer (2007), acerca de metacognición y estrategias: Ana Chamot (1999) and John. H, Flavell (1985), del mismo modo se tiene en cuenta el libro CALLA para las respectivas bases teóricas.

**Palabras clave:** Comprensión lectora, infografía, segunda lengua, estrategias metacognitivas y lectura en segunda lengua.

## 1. PROBLEM STATEMENT

In the 21st century, the Global Educative System demands the need to work hard on the reading habit, now that it is a skill that few people develop and it has been let up on as a communicative ability. That is why the importance of seeking how to strengthen the teaching practices could promote motivation in all students. On her article “Leer para qué”, Silvia Parra states that reading is not only an act of culture, it is for citizens’ ability, there is no doubt the levels of reading comprehension are related to the different human indicators in social development of a country. A good reader firmly is a good citizen and it is because through reading they obtain information that should lead them to be more productive, participatory persons to generate opinion, discerning and to be better understand of justice (Parra, 2014).

Nevertheless, in this contemporary world, there is an overexposure of information offered in the media, newspapers, magazines, books etc. Therefore, it has different quality and reliability degrees that reason; people must be able to extract the information and to judge it from themselves. Likewise, at the moment to mention the reading importance in the new worldwide paradigms’ context, it is necessary to take into account that the current circumstances are forcing individuals across the planet to reflect on the text content which is connected with the information found and the knowledge obtained from other texts. In that regard readers must evaluate the statements made in the text, facing their own knowledge of the world.

It is mandatory not fail to recall that reading for learning is essential because at the present students must become self-taught for inserting themselves into the system. Without that ability; educational system is generating many students who are entitled to many personal frustrations in social and work integration, therefore, with absence of reading or understanding texts; it is very difficult to progress in any educational areas. Big issues arise from the lack of linguistic reading competences in L1 and these become as a challenge when the learning process occurs in L2.

The aforementioned reasons are fundamental explanations in the reading developmental process of a second language, broaching the Latin America and the Caribbean context, statistics show that more than half of young people in these continents do not reach the proficiency levels which are required in the reading skills by the time they finish their studies. Regarding the difficulties presented in students, it is important to say those concerns start with the learning process from schools to universities. Consequently, it is essential to apply different strategies for achieving a high performance in reading comprehension.

Hence, based on these indicators, UNESCO considers that problems of young people are a dramatic situation now that there are a lot of students who do not have the basic skills when they come to read simple paragraphs and extract information from a text, the experts consider it is a new literacy definition. In today's world this new definition will have a minimum literacy level, no longer could read a short story and write down about the characters and some situations of it, the idea is to develop new ways to comprehend.

UNESCO (n.d.) (quoted by “La Mayoría de Latinoamericanos Culminan la Secundaria sin Saber Leer”, 2017).

Nowadays, the century imperatives and the Globalised world demand from everybody some skills which are related to critical thinking, that are necessary in critical and academic reading. Some educational reports in Latin America, show students concluding their studies without a proficient reading level in their mother tongue, they do not reach the expertise ranges required in this skill. Moreover, they did not possess basic skills; thus, affecting their progress in a second language and probably they would not have any expectations of it (Ocoro, 2016).

The educators know the impact they have in the moment in which they promote and encourage these skills in students, mainly, when read becomes as a skill in which institutions need to work on hard, because it is not only talking about developing this skill in L1 but in L2, now that students should be proficient for this competitive world. As well in educational as professional contexts are being required that the process of reading in L2 could be carried out in different ways depending on the circumstances, aims and motivations. Learning purposes determine reading types and characteristics with which the reader decides to get involved, so in any direction this diverges according to the learning language goals and the proficiency level of students.

When students read second language texts in a classroom, they work on different kind of books, they tend to carry out many activities and look for achieve the objectives proposed, despite the attainment points are subjected to precision they have and the

strategies they decide to put into practice; however, it should not be overlooked that most of those developed strategies are part of traditional methods which do not have structures focused on metacognitive processes. Students need to recognise the reading scope in order to understand the text methodology, due to the role of teachers in this progression is central, just like the way they apply learning strategies for having an efficient reading comprehension development (Grabe & Stoller, 2002).

In other words, if people could have the ability to self-control in their comprehend process in L1, probably they might be enabled in applying and regulating their own learning strategies in L2, as well said Flavell (1982)

The cognition includes 3 steps which allow people to be aware of the text comprehension; understanding, memorising and evaluating, so metacognition includes thinking about how the idea is perceived, the way they reflect on the understanding and the method they take the information in examining (p. 106).

It has been shown that metacognitive strategies could improve the learning process in general L2, however, the implementation focuses on the effects of these strategies in order to comprehend a text and how students articulate that with their previous knowledge; which makes reading a text easy. Hence, it is vital for students to realise that the employment of learning strategies as a habit and benefit, could create a connection with activities and objectives which they want to reach. Sometimes, lacks of which educators could present at the moment to teach innovative strategies are related to curriculum

limitations, knowledge absence and teaching techniques. Vieria, 2003. (Quoted by Jimenez, 2013).

In general, the process of comprehending a text in L2 requires the improvement of some skills such as synthesising, interpreting, evaluating, discerning information usage, activities and strategies which could allow students processing the information in an effective and competent method. Lack of reading comprehension in L1 as L2 tends to be a difficulty which does not allow students to be inserted into the society, it also affects all dimensions, now that it is considered as the basic skill and a starting point from other abilities. Additionally, it could be a mischance when the environment in which they are immersed is the learning process of a second language UNESCO (n.d.) (quoted by “La Mayoría de Latinoamericanos Culminan la Secundaria sin Saber Leer”, 2017).

There is no doubt, the learning difficulties in the English language have a tendency to be the same in Spanish speaking countries, but it is necessary to keep in mind that to learn a new language is a slow and long process, it requires a lot of practice and dedication. Some of these difficulties in education are evident in terms of quality time, monotonous, non-interactive classes, lack of consistency, motivation and absence of native English speakers to practice.

Besides, taking into account the Colombian context, reading skill is a big challenge even more when is being developed in L2, which refers to any language learnt by persons after they have acquired their native language. “A second language is studied because it becomes a necessity in any communicative context, cultural, educational and professional”

(Cook & Wei, 2009, p. 2). For that reason, the issue in comprehending the information captured in a text occurs when students are not able to understand well in L1. For instance, Calderón (2014) contemplates:

A mother tongue achieves an important function in the personal socialization, it allows him to be able to dialogue, communicate and develop the ability in systematic reflection on their mother tongue. The development of the abstraction and other vocabulary skills in students precede in the use of the mother tongue given that, there is a strictest relationship existing between language, thought and culture (p. 15).

In other words, mother tongue means language that every person hears spoken, mostly surrounded by the family context, in the course of the students' learning process beginning. Likewise, second languages are connected with a lot of knowledge and current context which help in creating a social structure where people could contribute with unification, cultural and cohesion processes (Chiesa, 2008).

On the other hand, in recent years, the pertinent assessments have revealed there are big difficulties associated with reading comprehension skills in Colombian schools and universities. A portion of this population has taken part in some international large-scale assessments in which they do not have good results in the reading skill and students do not reach higher standards. For instance, one of the most representative international assessments is the PISA test (Programme for International Student Assessment); it has

been implemented in over 250 Colombian schools as well as is focused on reading, mathematics, science and global competence.

The PISA test measure, especially in reading “the students’ capacity, how they could understand, use, evaluate and reflect on their reading process” (Organization for Economic, Co-operation and Development [OECD], 2019, p. 8). Therefore, the students should read multiple text units. They are asked to search and integrate information across the texts generating inferences and the mode they could handle the conflicts across sources. Likewise, there is another typical assessment that is the SABER PRO test; it is a quality national exam of higher education, which is applied to last semester students from any Bachelor degree. This exam is focused on critical reading: it measures “the abilities to understand, interpret and evaluate texts that could be found in the daily life, as in academic fields not specialized” (Instituto Colombiano para el Fomento de la Educación Superior [ICFES] documentation, 2018.p. 9), written communication, quantitative reasoning, social competences, English and specific aptitudes which are chosen by the programs of higher education institutions.

In the same way, taking into account the aforementioned facts, with a 12% percentage shown by these Programme for Student Assessment declares, “Colombian students scored lower than the main results for Colombia into OECD average in reading 412 points” (OECD, 2019, p. 1). Basically, Colombia’s reading performance in PISA 2018 was lower than the observed in 2015, so, as much in the SABER PRO test as PISA test; students reach standard 2 in Spanish reading. That means; “students could identify main ideas in a text of moderate dimension, find information based on explicit, though,

sometimes complex criteria, they could reflect on the purpose and form texts when it is explicitly directed to do so" (OECD, 2019, p. 2).

It was observed that students generally could not comprehend extensive texts that deal with concepts which are abstract or counterintuitive and make distinctions between facts and opinions, based on implicit clues about the content or source of the information. However, the other concern is the standard in English skill, SABER PRO results revealed that in general 19% of students do not reach the lowest level along with the Common European Framework.

In Colombia there are many difficulties in learning a second language, especially English. Some aspects are the external factors which do not allow the correct usage and training of a second language. Such as: motivation and attitude towards the anxiety, styles diversity, information inquired and study strategies. However, the deficit of reading comprehension is a problem that manifests itself in all students during their academic life, therefore, students' present significant critical situations every day in their professional and work lives.

From now on, it will take a stand from the University perspective; regarding the reading process, how do they implement different strategies in the students' reading process for having good results in the international exams which are required by the Ministry of Education, at the end of their Bachelor's Degree. We revised the Modern Languages Syllabus; we saw the program for advanced students does not place more emphasis on working on international exams preparation; it works on the implementation

of some metacognitive strategies which help students to develop reading process but not exactly as a training to obtain C1 level.

In this project based on the academic environment, we perceived some reading issues from students at the moment to do a task in which the contents are exercises from any international papers. This skill is one that they could not reach in the level required, it also has a lot of factors that constitute difficulties in the second language learning process: one of these is the strategy implementation to strengthen the reading process. We have an English classroom proposal that consists in the creation of a learning aid, so it also makes emphasis on reading comprehension skill and how it could be linked with metacognitive strategies.

The reading comprehension is one of the principal elements for English language learning in students, so, research of Grabe and Stoller (2002) quoted by Ahmadi, Ismail and Kabilan (2013) shows that it is a complex student process and, in some cases, students present little difficulties in throwing the significance up from any text. Despite this, common studies recommend; students who start learning the English language should be immersed in effective factors that foster reading comprehension skills among readers, for the same reason certain teachers suggest that metacognitive strategies could work on it. Many EFL / ESL students might have major complications at the beginning of their processes, and even after years of doing it, they could read a text, but recognizing and understanding the messages of the authors, they regularly run into problems. It is not a bright idea to put reading comprehension aside given that it is an imperative aspect in EFL / ESL learning process as well as it should be underlined in several educative levels, it is

indispensable to develop pedagogical accuracies alignments in second language, for instance; the appropriation of levels concepts which correspond to certain disciplines while the second language is learned, it facilitates the teaching contextualisation, it is essential to encourage motivation for finding a knowledge significance and learning strategies to apprehend texts according to its structures.

Based on what was previously mentioned the ensuing questioning will guide this research goes as follows:

**How might metacognitive strategies improve reading comprehension in advanced students of the BA in modern languages at La Gran Colombia University?**

## 2. JUSTIFICATION

This project emerges with the purpose of producing an academic sequence of activities through infographics to strengthen the reading comprehension process in English, in relation to creating some activities articulating reading and metacognitive strategies.

This learning aid is directed towards Advanced level students at La Gran Colombia University. Subsequently it is considerable that students improve reading skills in an efficient way using different kinds of learning strategies, now that for the academy, it represents an essential basis in learning English as a second language.

At the beginning the main reasons were to evaluate the weaknesses which were shown by students in their development through an IETLS mock test which was adapted from Cambridge English IELTS 12 Academic, 2017, to analyse their learning process in the classroom through some activities and to look for any pedagogical idea that help students during and after their process, now that it becomes them in being more able for presenting an international exams that they required at the end of the Degree.

Therefore, it is important to emphasise that in the teaching process to read is the ability that allows students to be able to explore into a text with particular fragments of the information that is sought. This means that readers do not have to read all words and lines, on the contrary; they must be able to scan the segments on the texts (Harmer, 2007). That is being the case, in which reading is the essential process of success of different disciplines, it is indispensable to relate and promote the exploration, the good analysis and everything that entails a good procedure of learning and teaching. Thus, this Project wants

to join metacognitive strategies and activities sequence through infographics together, making easier an appropriate development in reading comprehension.

Nevertheless, there is not the slightest doubt that infographics are a visual way of offering information, with a schematic presentation that summarizes data and explains them through bullets and simple graphics to assimilate (Oliver, 2019). In academic methods, the infographics allow complicated subjects to be understood quickly and easily, in this way, any information is more effective being illustrated than only using text. Based on this, the teaching process to read is mandatory and the design of effective teaching strategies that start from a comparable modelling to the complexity of reading as an activity, both being as a diversification in its structure.

It should be pointed out other awareness; that is related to how teachers work on the implementation of metacognitive strategies for reducing those weaknesses and let students reflect on their own learning process in English. Metacognition plays an important role in educational environments; this is evidenced in different aspects and it is useful in the real-life aspects such as the preparation of academic exams, problem solving, efficient memory usage, self- learning / control, making accurate judgments and developing basic skills for the professional life.

Thus, more than separating the diagnostics, students' levels or evaluation tests, it becomes essential for teachers to know what are the real issues in reading skills that are intended to be developed through pedagogical processes. As it was mentioned, the concern in this research is focusing on strengthening the reading comprehension process through

metacognitive strategies now that diverse methods for learning turn out effective during student's acquaintance process and it allows them to improve the rational achievement.

Thinking about the above stated, the educational reality contexts and their global vision is necessary to consider they are immersed in the scope where teachers should promote the ability to redirect and transfer what has been learned to different situations inside the academic life. On the other hand, the implementation of a learning aid in advanced courses in the Modern languages B.D. not only benefits the cognitive students' progress but enables the academic training for human development, likewise, the following research is feasible, given that, it is developing at La Gran Colombia University with advanced students' level, where the teacher provides support and consent to carry out various activities with the students. It has the necessary resources which highlight the development of reading comprehension. In addition, it is pertinent because it seeks to improve students' reading skill, moreover, we expect that the results facts will be used for the teaching process in the university, and also, it could be addressed into the low-level problem of texts comprehension, even in the second language process; in this case English.

Then, for that reason, this project attempts to challenge reading comprehension skill of advanced students at La Gran Colombia University, counting on the help of tools, infographic explanation, activities and learning strategies (Predict, Inference, Substitute, Selectively Attend, Self-Management, Planning, Monitoring and Problem – solving), which will be applied into the classroom as a learning aid.

### **3. OBJECTIVES**

#### **3.1. General Objective**

To propose a learning aid which allows learners to strengthen reading comprehension process, by means of using metacognitive strategies for an advanced group of students from the BA in Modern Languages at La Gran Colombia University.

#### **3.2. Specific Objectives**

- To identify advanced students' needs facing their reading comprehension process through an IETLS test.
- To establish the metacognitive strategies benefits in order to be applied in the reading comprehension process.
- To design a learning aid through a sequence of activities and infographics, with the use of metacognitive strategies as a means of improving reading comprehension.

#### 4. BACKGROUND

*Aprender a Pensar y Reflexionar: Propuesta de Estrategias Cognitivas y Metacognitivas en la Comprensión Lectora.*

The main purpose of this project is centred in determining how the influence of cognitive and metacognitive strategies affects the comprehension of texts according to seventh grade students at Cambridge school. So, at the beginning in this proposal the idea was to implement 3 stages (opening, intervention, ending), and it also was divided in 3 evaluation levels; Critical – Intertextuality, Inferential, Literal, at the first point a bit more 50% of students showed their reading comprehension process are placed in the Inferential level; they could develop basic skills in reading but it could not be with complexity meanwhile, at the second point students did a series of activities using metacognitive strategies and at the end of the intervention students presented a post-test in which the results were a bit more 70% of students placed in Critical – Intertextuality for that reason it demonstrates that the application of metacognitive strategies in reading process is relevant, likewise it allows students to be conscious of their own comprehension, the relation they could give between previous knowledge, and how they can transfer it to different contexts (Bojacá, 2017).

*Estrategias Metacognitivas de Supervisión y Monitoreo en el Ejercicio de Comprensión de Textos Escritos en Inglés para los Estudiantes del Grado 7mo del "Gimnasio Santa Rocío".*

This project sets forth the systematisation of pedagogical experiences that was affected through selection, design, implementation of a group of metacognitive strategies with the purpose of monitoring and supervising the English texts' comprehension. Likewise, the principal objective was directed to delimit the implementation's impact of metacognitive strategies in English learning process of seventh grade students at "Gimansio Santa Rocío".

The starting point in this research was related with the employment of 5 stages, first, it wanted to perceive and analyse the weaknesses which students show into the reading comprehension process with English texts, and it was implemented two reading exercises, in the same way, the researchers applied an interview to a teacher who gave class to seventh grade students, in this section they wanted to identify the methods and procedures' mistakes. In the second part, it was applied a pre-test with the purpose of calculate what reading comprehension level the students have, by means of the third part, the ideas was to use metacognitive strategies which allow students to develop series of activities and the two last parts consisted of developing and analysing a post-test with the same characteristics of the first one; it demonstrated that at the beginning in the intervention; 76% of students were in the lowest level, even so, after the implementation process of the strategies the post test showed a 33% of students in the same level, only at the top were a 26% of students. So, as a conclusion the employment of metacognitive strategies establishes that it is a tool which promotes / strengthens the acquisition and the development of reading comprehension skill in English as a second language, but it also

states that it is really necessary to work hard on it because is not enough to apply these approaches during short times in the pedagogical environment (Mejía, 2014).

*Estrategias de Aprendizaje en la Comprensión Lectora y Producción Escrita del Inglés de Estudiantes de Grado 7mo de la Institución Educativa Pedro Antonio Molina de la Ciudad de Cali.*

English is one of the most widely spoken languages in the world, it is becoming a universal language now that a lot of people use it in different fields, such as academic, professional, technological and social environments. It is a communication instrument which helps the society in diverse humans' development areas therefore the general objective of this research is to analyse the learning strategies which could be used by seventh grade students, in the reading comprehension and written production of English a Second Language. So, the findings presented in this project correspond to the information obtained from a test and the implementation of a survey based on 40 sub learning strategies which belong to memory, cognitive, metacognitive, emotional and social stratagems.

The results show from 35 students; 13 are in basic level of reading comprehension related Inferential (4, 6) and Literal (5, 4) process, however, it demonstrates the students' progression in the English learning process goes together with the usage of learning strategies and how effective these are. With the implementation of a survey, it analysed with punctuation of 3, 4 is the metacognitive strategies the most frequently used by students, so that means the effective application of learning strategies helps the language development system which students could construct. Hence the importance of guiding

them in these processes earlier so that they could complete a variety of tasks from the beginning of the learning process until reaching the highest levels, making emphasis on reading comprehension development given that, it requires a conscious intellectual effort (Gómez, 2018).

***La Metacognición en el Aprendizaje de una Segunda Lengua: Estrategias, Instrumentos y Evaluación.***

Learning a second language as in the case of English has turned out to be the principal need in the current world. The difficulty of learning L2 is due to the large number of variables which are coming together in this process, the metacognitive strategies establish appropriate mechanisms for learning a second language even so, in this article the main purpose is to discuss the concept of metacognition from the prevailing models, strategies, instruments and training tools that are employed to monitor, evaluate, plan the participants' cognitive processes.

Hence it constitutes ideas related to the metacognitive model, metacognitive process division, metacognitive evaluation, training and some characteristics that are proposed by Burón (1996) (quoted by Díaz & Bonilla, 2018)

- a) Recognition of objectives to be achieved with mental effort
- b) The strategies selection for achieving the stated objectives
- c) Self- observation of the knowledge generation process for checking whether the strategies chosen are the appropriated

- d) The evaluation of the results for knowing up to what point the objectives have been achieved. (p. 3)

Nevertheless, teaching metacognitive strategies is a vital process to make students aware of their achievement in second language learning and the level they accomplish in communicative competence. The usage of metacognitive strategies helps students to reflect on how they executed certain cognitively tasks, also it is a support of recognising those affective aspects that may be involved in their second language learning, such as anxiety, motivation and frustration.

The reflection processes generate the usage of metacognitive strategies, it allows at student's disposal tools for evaluating their improvement during the execution of communicative tasks. By developing introspection students could manage their learning; they are able to recognise what strategies use for and when to use it for planning and for deciding over manners in which it is necessary to express certain learned linguistic structures or a new talkative function of the language.

***Desarrollo de Habilidades de Comprensión Lectora en Inglés a través del Uso de Estrategias Metacognitivas.***

The education in Colombia has been increasing in all levels of English teaching as a foreign language. However, despite the effort, there is lot for improving, so, with the purpose of starting the research students did a mock of Pruebas Saber Pro 11°, only the part that includes the *Metacognitive Awareness Inventory* tool. The idea was to describe how the usages of metacognitive strategies influence the development of reading

comprehension skills in English as a second language in urban institution. Therefore, most of the participants (55%) were in A1 level; meaning that they are with a minimum achievement English level, in the same way, based on reading comprehension skill the 8% of students obtained B1, and nobody reach B+. After this intervention, the researchers wanted to implement a series of metacognitive activities for going into detail about planning, monitoring and evaluating, at that moment students were in a socialisation for verifying if the learning process has been useful for them. At the end of this project students presented a post test that demonstrated a positive incidence in the application of metacognitive strategies as a pedagogical tool for developing reading comprehension skill in English, it also was evidenced a consequent reduction of A1 level so it was an increasing of students into the A2 category (Patiño, 2018).

***Estrategias Metacognitivas en el Desarrollo de Procesos de Comprensión Lectora.***

This proposal was designed for carrying out the use of techniques around the metacognitive thinking area that could develop and enhance the students' communicative skills, it was implemented didactic units which were aimed not only for strengthening the comprehension process but also for generating a meaningful experience of literary texts in each student. In the first part it was made a diagnostic to determine the English students' level; it was established that only the 46% of students were able to carry out comprehension processes which encompasses an analytical or mental representation that combines both with literal text information and the inferential previous knowledge information. Thus, the implementation of metacognitive strategies during reading practices

in the classroom allow students to interact with a text in an independent manner, thus it generates autonomous and regulated learning (Ascencio, 2017).

***Comprendión Lectora y Funcionamiento Metacognitivo en Estudiantes Universitarios.***

This study states a relation between metacognitive functioning and comprehension level in the university students at the moment of reading scientific articles. Nevertheless, the importance of metacognition, particularly in planning and monitoring – control processes during the reading texts must be studied in detail, so the results of this research show that not necessarily who plans and monitor during the reading procedure could reach the understanding, so, evidently, these outcomes do not coincide with the literature which states well – regulated students have better reading performance.

The students who participated in the study; were reading and reporting two types of scientific articles, their process was videotaped and it was made a level categorisation based on planning and monitoring – control, ranging from non – regulated to self – regulated. This study found substantial and constructive associations among metacognitive functioning and comprehension levels, precisely because of that, it was drawn up three objectives; to establish the relationship among the aforementioned main aspects, to describe the performance of students while they are reading two scientific articles and to describe the students reading process execution as of reading report working out (analytical review type). At the end the outcomes invite deep thinking of some extent about what

ought students plan, monitor and control their reading processes and what characteristics should they have so that planning and monitoring be effective (Aragón & Ochoa, 2005).

## 5. THEORETICAL FRAMEWORK

This framework will start broaching different project backgrounds which were found concerning different sources related with some implementations about metacognitive strategies for improving the reading comprehension process, afterwards it also has some reading concepts, the learning development of reading comprehension in second language, therefore it has the proposition of discuss briefly the tenets of reading strategies, metacognition, and how the implementation of metacognitive strategies works on language learning process in L2.

### 5.1. Reading

The definition of reading is related with one of the linguistics language skills as a topic of language learning process; this action engages a complex message of a written passage and the interrelation of brain development. On the other hand, it is also recognised like knowledgeable and conventional action, in which people carry out an interactive process that allows them to construct mental representations from a text; it is also related to their prior knowledge with the information presented in it.

Regarding the Goodman's explanation, 1996 (quoted by Ramos, 2018):

Reading is an active process in which the reader, concerning his own understanding and experiences, establishes an interaction with the text to make sense of the information presented. These transactions between the

new and the old information are what allow readers to make sense of the print. (p. 24)

In the same way, it is important to reflect the reader's role at the moment to read given that, it connects the information taken from the text and their background knowledge; having as a result a strong construct of any text. Besides with reference to PISA (2003) as quoted by Henriquez & Maquilon (2015): "The reading capacity is the understanding, employment and personal reflection from written texts in order to achieve goals and develop knowledge, special potential and participation in society" (p. 14).

Meaningfully, in the action to read there are three types of approaches which are usable for readers in their learning process; *Bottom up*: this model shows up a reflexive way in identifying and decoding words in any text. Basically, the readers could start to scan the meaning from words or sentences which are found in texts, then, they create a recognition process and finally they make a very long analysis of the words in order to comprehend (Debat, 2006). *Top down*: It centres on the word's meaning related to phrases or texts rather than phonemic word's representation, in this model the readers are focusing on the significance and the framework clues for identifying words. *Interactive models*: It shows how the relation into bottom up and top down is, and how these processes work together, so according to Hedge, 2000 (quoted by in Gonzalez (2017): "in the process of meaning building, the readers are totally involved in an active process where they combine information from the text with previous knowledge and experiences" (p. 163).

Likewise, the principal purpose of it is determined when the readers are engaged in the reading development in which they could construct meaning of what is being read. Finally, it is essential to realise as Gascoigne, 1997 (quoted by Hameed (2008) said; the difference between top down and bottom down approach make emphasis that readers could not use all the information in the text when they read, so, readers who select relevant information in the text could take into account their reading purposes.

At the moment to talk about reading; it is essential point *Reading skills* out that students need to be able to do numerous things in a reading text, they need to be able to scan the text for particular pieces of information; it means that students probably do not have to read every word or line contrary to it, they could get important concepts meanwhile they use the scanning method. Likewise, Mokhtari, 2017 (quoted by Karbalaei, 2011) affirms reading skills are spontaneous actions that allow readers to have effects in decoding and comprehending texts quickness, it also refers to the reader's proficiency and fluency which usually could work without reader's consciousness of the mechanisms or controls that are involved in the process of reading.

The skills in reading operate with the absence of reader's cautious of their awareness; furthermore, these abilities are used out of habit; practiced and learned to the point where they function automatically. Whether the ability for scanning or skimming depends on the students' needs, what kind of text they are reading and what they are looking for (Beale, 2013). The skills that readers could have for developing the processes in which to get and understand information should be focusing on the reader's

requirements and to emphasise in how the reader's brain works on, in view of they are immersed in the English learning process.

As well as Nicolas Carr (2008) sets forth in his article; "Is Google Making Us Stupid?" he points out it is essential to show people how to read any kind of text, no matter how easy or difficult is; it will apply some learning tips for developing the reading skills well, so, the important idea here is how students could realise in their reading process by themselves and how they evaluate their skills in terms of understand all the information in a text.

As a final point, Wolf explains (quoted by in Carr, 2008) reading:

It is not an instinctive skill for human beings, it's not etched into our genes the way speech is; we have to teach our minds how to translate the symbolic characters we see into the language we understand. And the media or other technologies we use in learning and practising the craft of reading play an important part in shaping the neural circuits inside our brains (para. 6).

Based on the aforementioned authors' ideas the purpose of reading is to develop an action in which people could understand and follow the impressions that any kind of texts provide to them.

### **5.1.1. Reading in a second language**

In the last two decades the studies based on the reading process in L1 and L2 have been increasing, these studies are dedicated for understanding the facility that is

comprehended as the efficiency in which it could be executed, in a coordinated manner all skills that integrate and compose the reading competence. According to Bonilla and Castillo, 2014 (quoted by Akçor, 2017): “to read effectively in L2 is one of the most challenging activities for many students. Surely this important skill helps students in their learning process at school and their life in general” (p. 174).

Thus, there is essential to analyse in reading process as much in L1 and L2 are different mental operations which allows the reader to go from decoding development to comprehension progression, so, for that reason Campa and Nassaji, (2009) affirms “people learn to read in their first language in a wide variety of circumstances” (p. 9). Even so, a lot of researchers disagree that reading in a second language is identical reading in L1.

Concerning Goodman (1982) and Zuñiga (2001) quoted by in Gonzalez (2017) pointed out in their stances:

The reading process is universal for all the languages since making significance from written texts happens in all of them, like the mode to read in a first language as well as in a second language are processes that share many things, so, both are meaning production processes from printed texts. (p. 105)

Furthermore, it would say the two of these processes (read in L1 and L2) are manners in action among readers, texts and perspectives; these hang on the prior knowledge, employ the cognitive and affective strategies, now that, both are ways for getting or changing knowledge. Even though reading in L1 cuts important elements in second language reading, these procedures have considerable differences besides. A clear

example emphasises that reading in a second language involves certain linguistic characteristics, for instance; the distinction among witting arrangements, sounds, the need of acquaintance and the competence in L2 Zuñiga, 2001 (quoted by Gonzalez, 2017).

### **5.2. Reading comprehension**

The process of comprehending any kind of reading is considered a complex progression, which comprises the effective or unproductive use of many abilities, so when somebody reads, they should be able to recall information afterwards. According to Heilman (1981) as quoted by Gonzalez (2017) “reading comprehension is a process of thinking, to give sense of written ideas through meaningful interpretation and interaction as a multifaceted procedure which is affected by several thoughts and languages abilities” (p. 8).

It is clear that comprehending a text consists in understanding, employing and making reflections, it involves people in having a personal commitment on written texts; allowing to know people’s mode to achieving their own goals, development knowledge and the purpose of giving sense in how to participate in the society. Thus, as well as Kennedy, 1981 (quoted by Jafar, 2012) says:

Reading comprehension is a thinking process by which scholars select fact information or ideas from printed materials, it decides how is relating to the knowledge they have acquired and how they judge correctness worth for meeting their needs and objectives. (p. 9)

Therefore, Pascoe and Wiburg (2003) stances that the ability to understand reading refers to the reader's capacity and how they express the way to process information which is contained in a written material. This progression consists in making operations with cognitive series that readers must carry out for organising, focusing and integrating information, given that, it can be incorporated into the reader's cognitive structure. So, there is a huge relationship between words and concepts, in the same way, Hancock, 1998 (quoted by Henriquez & Maquilon, 2015) affirms:

If students do not understand the meaning of any word in the text, it will become difficult to understand the entire context inside it. Although, knowing vocabulary is essential in reading comprehension, it will help students in decoding what is important in a reading part, now that students will be able to understand what they read and it will become easier for them. (p. 13)

As it was mentioned before, it is fundamental during the learning process to be focus on using appropriate strategies which avoid students misunderstanding the significance of the words and concepts in a text, it could allow readers to catch well all information they are reading.

### **5.2.1. Reading comprehension in a second language**

Comprehend texts which are written in L2 is a big challenge for learners, so most of the situations that allow teachers and researchers understand the lack in this learning contexts; it is the identification of how they become as a poor comprehends or poor readers due to deficient basic level processes in L1 hence, this kind of reading comprehension

weaknesses fall back onto some students who could have good word recognition skills in L2 but have poor comprehension in the same language. As Wurr (2014) claims: “reading in a second language implies certain linguistic aspects such as the difference between writing systems, sounds, the lack of knowledge and the real competences in L2” (p. 161).

Probably to carry out reading comprehension strategies into the classroom would be a great challenge; as a positive assistance for students, it might be an efficient mode to read comprehensively in L2. However, it is necessary to analyse some factors which affect L2 reading comprehension for instance; “it could influence students’ proficiency levels in L1 reading ability, their L2 reading experiences inside and outside the classroom, the motivation to read in both languages (L1, L2) and their attitude toward authentic or non-authentic texts” (Ramos, 2018, p. 27).

Thence, into the learning practices in L2 is important to recognise that the vocabulary and grammar could be a setback in the comprehension development, so, the construction of meaning is susceptible by reason of the absence of a cultural context in which the reader could systematise the message. To comprehend and get results in reading L1 or L2 happens in part as a consequence of the interaction among the reader; text and the perspective in which this process takes place (Flavell, 1985).

Subsequently, it is essential to know that cultural and social aspects are connected to the students’ environment; they could be immersed inside and outside the classrooms, even so, these aspects before mentioned recognise to read in L2 is established in diverse backgrounds; that means each context has its own mode in categorising any speech, and it

contemplates that reading in L2 has some changes from reader to reader relying on practices within their sociocultural context (Grabe & Stoller, 2002).

Lipka and Siegel (2011) delimit four important factors involved in the reading comprehension process: *the reader*; they could increase the efficacy of previewing or pre reading by creating a concept list or maps; some important concepts contained in the texts, the reader may explore connections between information plus mental construct model of the information, *the text*; it should be focus on helping readers and allowing them to perceive any sense of sentences or meaningful phrases, likewise, a reader could make connections among ideas by attending the manner in which a text is structured and organised, *the strategies*; readers could become proficient or capable in reading; using strategies, processes and matching these aspects with their goals. *The goal*; the main purpose is that readers with their knowledge should set specific goals, these have to be based on their potentials and the texts' content, but if they have less knowledge 's readers might not be able to set specific goals. For that reason, it is a little bit hard suggesting what kind of ideal goal's type should be for all readers; each one of them need to learn how to adjust reading goals through experiences.

### **5.3. Reading strategies**

It is important to have a strategy's definition for understanding well how it works on the reading process specifically. As well said Whittington (2001) in his book, "the strategies are not chosen, they are programmed, comforting, try to simplify and order which is too complex for comprehend" (p. 23). Reading strategies promote reflection on

the learning students' process and are linked to goals in that it attempts to handle and adjust their efforts as readers; in decoding a text, understanding words and to construct meanings text Mokhtari, 2017 (quoted by Karbalaei, 2011).

Henceforth, the reading strategies could be divided in two types: *Cognitive strategies*: This learning aid students in bringing the text's connotation moreover these have direct purpose in the learning material. *Metacognition*: It assists the students in monitoring, understanding, evaluating, etc. in their learning processes and put any kind of action forward when it requires. Here are some examples based on the concepts previously mentioned; activating prior knowledge, predicting, visualizing, questioning, drawing inferences, finding main ideas, summarizing, synthesizing, monitoring comprehension, evaluating, etc.

Lastly, most of the time readers who are dedicated to implement and develop new ways in learning a second language should keep in mind if they do not continue with that process, it is probably they do not feel motivated or show a favourable attitude to approach texts in English contexts.

### **5.3.1. Reading strategies in a second language**

The proficient readers could make sense from any kind of printed text; they can process the information in a constructive and interactive way now that, they could have the ability to recognise, interpret and understand the message of a written passage. Hence, talking about reading strategies; it could remark how effective in reading comprehension is for students inside the classroom, how it could be as a big challenge outside any academic

environment and how it might help students in their potent process to read comprehensively in L2.

The reading strategies involve the reader in having an active and complex process, but in ESL learners it plays an important role now that, it manages the interaction with the text that leads to an effective reading comprehension in L2. Furthermore, as well Ramos (2018) says before students put in practice any strategy in their ESL processes, the teachers must be aware of students' issues regarding grammar, vocabulary and some difficulties in their reading development even in L1.

In contrast, learning processes in L2 demand work on specific skills, for that reason is necessary to enhance specific reading strategies for instance; metacognitive or cognitive moreover, it is a big challenge because in some of these processes the reading exposes structures that could or not help students in assess, achieve and grow their reading comprehension skills.

#### **5.4. Metacognition in Language Learning Process**

The knowledge about metacognition has been of great value in the teaching of second languages, up to the point of metacognitive processes have become part of the contents in teaching programs together with the rest of the procedural, linguistic, pragmatic and cultural. Metacognition, according to Karbalaei (2011) is the understanding and the monitoring that the students could have directly in their cognitive processes, so, concerning the reading development it is normal talking about metacognitive awareness that refers to

what people know and metacognitive regulation instructions that state when, where and how to use strategies in such a way that works on.

In general metacognition includes procedures which allow individuals to plan, monitor, repair, revise, summarise and evaluate. Therefore, Baker and Pressley (2008, 2002) quoted by Grabe, 2009 state a position facing the learning process in reading; “we learn consciousness of our comprehension process, more explicitly; we learn strategies that could support our comprehension; *our awareness of strategies* and we learn how to carry out these strategies effectively; *our control of strategies*” (p. 223).

Metacognitive instructions might help students to determine how to use the strategies to improve a deeper understanding in the meaning of texts; students could also apply it for constructing knowledge, monitoring the use of these strategies during the reading process and evaluating appropriate methods to correct emerging problems, at least students’ English learners should choose metacognitive strategies depending on their language proficiency and their assessment methods used.

Supporting this concept, Klingler (quoted by Chaves, 2015) “Metacognition refers to the awareness that the individual has about the processes of cognition and conditions such as memory, attention and knowledge” (p. 65). In the same way, it is important to mention Flavell (quoted by Arias, Calderón, Leal & Rodríguez, 2016) who made a lot of works regarding metacognition:

It is a process to the knowledge which someone has about cognitive practices and produces, for instance; the characteristics of relevant information in

learning. This is how metacognition works, as meta-memory, meta-learning, meta-attention, meta-language, etc, nevertheless, based on those statements it's important to analyse the process remarks an active supervision, consequent regulation and organization of these procedures, in relation to the cognitive items or data in which it works on at the facility of some goals or concrete objectives (p. 83).

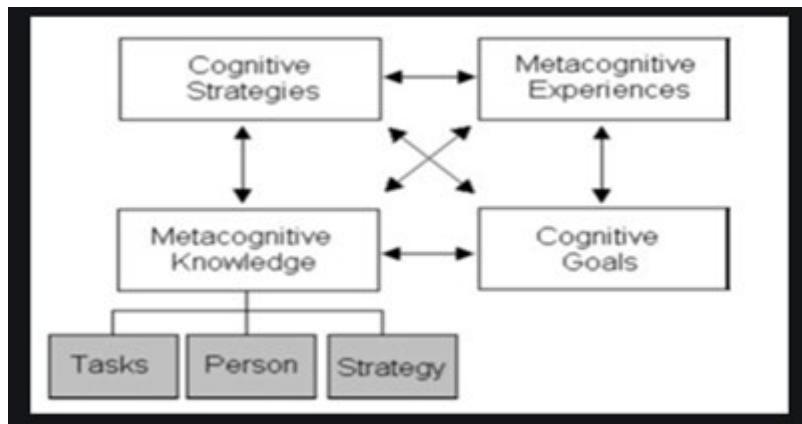


Figure 1. Metacognitive Diagram. Taken from: "El Desarrollo Cognitivo". Flavell, J., 1982, p. 213

Related with Figure 1 Flavell shows through a diagram how the mechanism of Metacognitive knowledge, regarding the acquaintance relating to one's own cognitive processes, is organized into three categories: person, task and strategies. 1. Person: The tasks that demand some type of cognitive activity imply knowledge and beliefs over the characteristics of the individuals who are involved, both at the intra-individual, inter-individual and universal level, which are important in performing with efficacy. 2. Task: knowing about the nature and demands of the task (breadth, degree of difficulty, etc.) it will allow establishing the necessary procedures for its execution and resolution. 3.

Strategies: it is the knowledge about the possibilities of addressing the control of the task's execution for achieving the goals that implies.

Exists an important connection between Cognitive approach and Metacognition; these concepts aimed at learning English processes, different mechanisms that integrate reading strategies and the control of metacognitive acts. First, it is important to define how the cognitive theory works as a learning's model; it indicates that learning is an active, dynamic process in which learners could select information from their environment, organise information, use the information in appropriate contexts and reflect on the success of their learning efforts (Barron, Cook, Flook, Hammond & Osher, 2019). Cognitive theories of learning begin with a distinction between three categories of memory's functions; as could it see in the Table 1

Table 1.

*Memory Conceptualized in Terms of Types, Stages and Processes.*

As types	<ul style="list-style-type: none"> <li>• Explicit memory</li> <li>• Implicit memory</li> </ul>
As stages	<ul style="list-style-type: none"> <li>• Sensory memory</li> <li>• Short-term memory</li> <li>• Long-term memory</li> </ul>
As processes	<ul style="list-style-type: none"> <li>• Encoding</li> <li>• Storage</li> <li>• Retrieval</li> </ul>

*Annotation:* This chart was taken from: "Introduction to Psychology" by Stangor, Ch. & Walinga, J., 2010, Chap. 9.

Stangor and Walinga (2010) explain through the schema these sorts: *types*; Explicit memory: it refers to knowledge or experiences which could be consciously reminisced. Implicit memory: it states knowledge could not be remembered, it also shows that the experience of behaviour could influence the individual's conduct and memory. *Stages*; it is important to emphasise all information cannot go through these three aspects because most of the time the individual overlooks that. Sensory: it refers to the intermediate memory that is transitory unless it is cared for more processing with the purpose of causing brain's sensations by long-term. Short-term: it makes emphasis on the information which could be forgotten, but it has the determination of being the goal to remember and to keep in a few seconds more, less than one or two minutes. This procedure is limited in holding the total of information that could be processed in the brain. Long-term memory: there is no limit in the capacity of retaining information for days, months and years even though individuals might forget some information after they have learnt it.

*Processes*; Encoding: it is the process in what the brains keep and turn information into functional mental forms. Storage: it is a retention system of information; it doesn't have parameters in collecting and this part happens when the information is already encoded. Retrieval: it is seen as a process in which individuals get information out of stowage and it is bringing in their consciousness. In this process it could find three important aspects recall (to access information without reminders), recognition (to happen

when individuals could identify information that they have learnt previously) and relearning (to go over information already learnt).

The ESL students are immersed in processes and standings which compose their learning progression. However, the metacognitive curriculum purposes include work on the types of memory; procedural “how” and declarative “what”. So first the term function in memory is used to indicate mental utilities based on developmental, cognitive, and treating information theory, rather than mental structures based on neural (components which attend and observe that the mental functions might be occurring) or anatomical components of the brain.

Bearing in mind, the major *procedural*; it is to develop in students the ability to comprehend, interpret and acquire information from different types of written text. Also, it is learned most effectively through practicing, it refers to memory skills and body’s movements. This way to retain is naturally acquired through repetition, rehearsal and it is composed by instinctive sensorimotor behaviours, the procedural retention is associated to implicit memory, because preceding practices aid in the developmental acts, all of them without explicit and awareness of previous involvements.

In *declarative*; the specific characteristic is what is taught; it means students learn most effectively by taking advantage of existing memory structures or schemata and building knowledge. It emphasises on facts, events, it is also recognised as an explicit memory which makes individuals remember the information they already learnt and read.

The reason why metacognition is substantial it is because if learners are not aware of their development in reading comprehension and they don't realise what to do, the strategies introduced by the teacher would fail. In the same way, Grenfell & Harris, 1999 (quoted by O'Malley, Chamot, et al., 1990) pointed out "students without metacognitive approaches are essentially learners without directions or opportunities to review their evolution, accomplishments and future directions" (p. 140). Based on the reason before mentioned before, it is essential to put the metacognition procedure forward learning process of students now that, it helps them in awaking to all content they get into a class and in identifying circumstances in which the implementation of these strategies could be useful.

### **5.5. Metacognitive strategies and Autonomous Learning in Second language**

The strategies are related to the usage of knowledge acquisition on tactics, procedures and models; however, the explicit purpose is to generate actions for learning with a specific objective. It becomes as a result of metacognitive mechanisms which are global strategies not certain to any assignment, but advantageous thru many of them, it may include working underdeveloped. A clear example of the reading strategies acquisition is often related to well-educated as students learn that working backwards, such an approach should take a comprehensive view into another one, in that way, learners become expert readers. An additional tactic could be attending to errors, for instance; reading tasks where phonological ability is tested.

In general, the more successful readers tend to use strategies than a lesser number of effective readers, first it is important to realise the method of introduce metacognitive strategies in the context of reading is divided in two types of cognition; primary: the part in which the strategies' knowledge are applied in the way students could learn from texts meanwhile they read, and secondary: the mechanism readers have to control their actions while they are reading in diverse purposes.

Likewise, readers should monitor their reading and state how they could use strategies, adjust it properly and evaluate over their ongoing efforts to comprehend Baker, et al., 1986 (quoted by Grabe & Stoller, 2002). There is not the technique aside that could go in the direct reasoning process, at the end when readers become mindful to involve the reasoning in reading, they can access and apply it in future reading situations.

Shoonen, 1998 (quoted by Hudson, 2007) in his book *Teaching Second language Reading* says, “Apparently, metacognitive strategies play an increasing role to identify good readers from poor readers as the reader progresses in L2” (p. 138). The strategies implementations in English learning process as a second language are well-defined as conscious techniques, to employ these strategies indicate readers need to increase their understanding and constructing a receptive reader, in turn, Devine (1993) as quoted by Karbalaei, 2011 makes clear that:

Metacognitive reading strategies are conscious means by which students monitor their own reading processes including evaluating the effectiveness of cognitive strategies being used. Therefore, these strategies may involve, for

example; planning how to approach the reading of a text, testing and revising according to determination and period available. (p. 7)

Besides, adapted from the content previously cited to achieve the comprehending assignment as of effectively text; the reader must develop metacognitive strategies related acquaintance, must include factors such as previous experiences, beliefs, culture, specific practices, must be aware of the proficiency in L2 and how they use tools for comprehension which permit the self-direct learning. Carrell, Auerbach, et al. (1998) quoted by Karbalaei, 2011 state reading strategies could only turn to competent reader when they are able to determine a certain goal whereas reading is being developed; additionally, metacognition plays a vital role in reading, for that reason in it may be included some steps which would help readers:

- a. establishing objectives in reading, b. reviewing reading material, c. repairing miscomprehension, d. evaluating the development in understanding a text, e. analysing the text paragraph structure to clarify the author's intention, f. adjusting reading speed and cognitive strategies, g. engaging in self-questioning to determine if the objectives have been reached. (p. 8)

Readers that could make the implementation of those stages, might increase as an automatic reader, in general they need to have clear the developmental goal no that they need to be able in reutilising the strategic method in any other reading activities, it also let learners reflecting and thinking the way they could appliance problem solving in their goal progression for comprehension, having as a result autonomy in their learning procedure.

Learners who are able to play the kind of active role in their own learning that is implied in the above quote could be said to be autonomous (Nunan, 1988). One of the clearest articulations is by two colleagues at the English Centre, Phil Benson and Peter Voller, who have produced an excellent book on the subject. However, David Nunan (1988) affirms they adopt Henri Holec's definition of autonomy as the ability to take charge of one's learning, and point out that in language education the term is used in at least five different ways:

1. for situations in which learners study entirely on their own.
2. for a set of skills which can be learned and applied in self-directed learning.
3. for an inborn capacity which is suppressed by institutional education.
4. for the exercise of learners' responsibility for their own learning.
5. for the right of learners to determine the direction of their own learning. (p. 194)

Autonomous learning is very important, it is the process in which individuals take the initiative, with or without the helping hand of others, people create awareness of the relevance of their own learning. Learners have the opportunity to access so many resources that now, learning can happen anywhere, anytime, not just in the classroom, libraries or specific places for study areas. They can take control of what they are learning, also, learners can check if they are really learning, or can review the ways in which they do it, if the study is going too fast or if perhaps, they could slow down and reach the balance to achieve learning in an effective way.

In a recent educationalist's publication looking at the practicalities of developing autonomy in the classroom, Benson (2003) argues that:

Autonomy is perhaps best described as a capacity, because various kinds of abilities can be involved in control over learning. Researchers generally agree that the most important abilities are those that allow learners to plan their own learning activities, monitor their progress and evaluate their outcomes. (p. 290)

Based on the aforementioned quote, unfortunately, few learners come into any given learning arrangement with the knowledge, skills and attitudes that allow them to take part in the kind of pedagogical partnership spelled out in the preceding paragraphs. Teachers, who are committed to concepts of learner-centeredness and autonomy, must therefore help their learners to develop this knowledge and skills. They can do it by incorporating into their teaching a set of learning process goals to sit alongside language content goals.

Additionally, learners every so often do not look for a technique to achieve meaningful learning, therefore, it is important that, who teaches knowledge should help and guide students in different ways in which they could study besides learners must be aware of the importance of acquiring it. Nevertheless, educators should keep in mind that not everyone knows the ways to accomplish it. That is why different ways were proposed to become students to be autonomous: Nine step programs there are levels and degrees of learner autonomy. In fact, dependence and autonomy are not categorically distinct, rather, they exist on a range. This is done by incorporating a series of steps into the educational

process. Although Nunan, 1991 has set the following steps out sequentially, some of them overlap, and can be introduced simultaneously. This is particularly true of steps 4 - 9, which focus on learning processes, and can be introduced alongside steps 1 - 3 which are more content oriented;

Step 1: Make instruction goals clear to learners, Step 2: Allow learners to create their own goals, Step 3: Encourage learners to use their second language outside the classroom, Step 4: Raise awareness of learning processes, Step 5: Help learners identify their own preferred styles and strategies, Step 6: Encourage learner choice, Step 7: Allow learners to generate their own tasks, Step 8: Encourage learners to become teachers, Step 9: Encourage learners to become researchers. (p. 182)

These have been articulating a vision of language education that is definitely entrenched in the human-centred tradition of education, this practise claims for a pedagogical partnership between teachers and learners. Such a partnership can only become a reality if learners have the knowledge, skills and attitudes to play an active role in the planning, implementation and evaluation of their own learning.

Probably, in the future, people will remember that the student was only reflexive and the teacher was the one who had to provide the information and everything that the students should do. Today students must investigate now that they are the ones who show the topics and exchange information with their classmates, enriching their knowledge, while the teacher must only guide the student to acquire and develop the necessary skills

that can apply them. Traditional education has mentioned over the years that the teacher-student relationship is a classified in levels, for that reason by themselves the term *student* was used, in order to assume a meaning of a being without light, but over the years, it has revealed that it does not work in that way, knowledge and learning are as cooperative team, it does not work from any perception but is a straight process. Though, it is important to see learning as a discovery, encouraging students to participate, creating expectations with an attractive goal and involving them in the learning process is vital to motivating them.

### **5.6. Metacognition and Reading Comprehension in L2**

At the moment of talking about how the relation into metacognitive processes and reading comprehension work on in learning L2, it is important to say the metacognitive processes in reading comprehension include a sequence of practises which readers should implement; metacognitive knowledge, metacognitive monitoring and metacognitive control (Kraanyenoord, 2010). In the same way, this is an approach associated with readers' awareness, which they should use in order to comprehend any reading material and reflect on their progression.

It is important to emphasize that according to Lopez (quoted by Galvis, Perilla & Vega, 2006) metacognition and reading comprehension in L2 is associated with: "The activity of meaning construction and sense which set the essence up of the reading process; is the product of participation between readers, text and situation; even so, that interaction is determined by the reader knowledge, interests and expectations" (p. 37). This fact leads the way an individual could progress in reading, therefore it is similar to any conceptual

representation of the textual content, for instance; in the midst of the well-prepared representation is the level of understanding and reading process will be the highest.

In the same way, following Lopez's proposal, reading becomes a strategic process, which is determined by the objectives suggested by readers, taking into account that the reading seeks to give information, which is oriented to the preparation and command of a specific text (Galvis et al., 2006). Among so much, the metacognition has to do with the awareness that the individual possesses about the knowledge; in other words, as says Salamanca (2015)" metacognition can be understood as "cognition about cognition, knowledge about knowledge, thinking about thinking" (p. 51).

So, cognition is associated with mental processes for example: observation, attention, memory, reading, writing and understanding, while metacognition deals with the knowledge and regulation of these processes. At this point some relevant metacognition features should be seen with the aim of apprehending its role in teaching and educational reading process, in particular according to this, the action implies some indispensable aspects: a. to know the objectives which are pursued with the mental activity, b. to make a choice of strategies for accomplishing the objectives, c. self-observation of the execution, in order to verify if the strategies which were chosen would be fit for the purpose, d. results evaluation, that is, to determine how much the objectives were achieved.

In this case, metacognitive strategies are related to the usage of knowledge acquisition on tactics, procedures and models; however, the explicit purpose is to generate actions for learning with a specific objective. It becomes as a result of metacognitive

mechanisms which are global strategies not certain to any assignment, but advantageous thru many of them, it may include working underdeveloped. A clear example of reading strategies acquisition is often related to well-educated as students learn that working backwards, such an approach should take a comprehensive view into another one, in that way, learners become expert readers. An additional tactic could be attending to errors, for instance; reading tasks where phonological ability is tested.

These following stratagems become metacognitive strategies when students independently select the appropriate ones and use them effectively to accomplish tasks or meet goals, Biggs & Moore quoted by Thenmozhi, 2019 state:

1. Planning: deciding what their goals are and what,
2. Strategies: to use to get there; decide what further,
3. Knowledge or resources: skills they need,
4. Monitoring: progress along the way; students are going in the right direction.
5. Evaluating: when I have arrived and
6. Terminating: when the goals have been met. (p. 2)

Therefore, these strategies are necessary in learning activities due to playing an important role in increasing students' respect for and understanding each one of their abilities, interests and needs, for that reason, implementing these processes encourage students to take responsibility for their learning. Thus, it is essential that students have the opportunity to review the steps in each learning development so they are able to apply it, when they are examining acquaintance issues. Students could reflect on their experience to identify new understandings and assess their own knowledge.

## 6. METHODOLOGY

### 6.1. Research Design

Research is a set of methodical, critical and experiential processes which are applied in studying a phenomenon or any problematic, in turn, the research process implies three important types of approaches which are: *Qualitative*: it involves looking in depth at non-numerical data, it is a method used by researchers who study human behaviour, opinions, themes and motivations as artefacts. *Quantitative*: it has a purpose of quantifying information. However, this consents the results' simplifications from sample to full population of interest, this also allows measuring the several views and opinions in the given model (Bridger, 2014). *Mixed*: is the merger of two previous approaches. It's really important to say these approaches employ careful, methodical and empirical processes with the purpose of generating knowledge.

On his book; Punch et al. (quoted by in Hernández, Fernández & Baptista, 2014) says in specific words:

When the purpose in an investigation is to check out the way in which individuals perceive and feel the phenomena that surround them, is necessary to go deep in their views, interpretations and meanings. The qualitative approach is recommended while the subject of study has been slightly explored or there is not any research done in any specific social group (p. 358).

After the approach definition, it is essential to talk about the following line of investigation; *non - experimental - transverse*, with an *exploratory scope*, due to all the information will be collected in a set time, without the environment intervention in which the process of research is being developed. The non-experimental study is the one that is carried out without the manipulation of intentionally variables; that is to say, it is an investigation where there is not any intentional alteration to them. What is important is to observe the phenomena as it occurs in the own natural context, afterwards, it allows the investigation to make the analysis of it (Hernández et al., 2014). In specific words in a non - experimental research the variable has already occurred and theses cannot be manipulated; this is why the researchers do not have direct control over these variables, as well as their effects.

However, according to different models that could be used in research; Wang et al. (2017) say:

The non-experimental model is divided in 2 categories that are based on the time in which data is collected; for instance, these authors talk about transversal design: where the data is collected in a particular moment, in a particular time, its purpose is to describe variables also their incidence of interrelation at some given time. In the same way a longitudinal design: where data is collected over time in periods making inferences about the change, its determinants and its consequences. (p. 16)

As a final point, Hernández et al. (2014) state the explanatory scope is focusing on; “to determine the phenomena’s causes and to generate a sense of understanding the structures which are being studied” (p. 90), so, this scope allows researchers to increase the knowledge over a specific topic although it does not offer conclusive results but the researches could find the reasons of why a phenomena occurs, they could distinguish the reasons, anticipate changes and to obtain new points of view on the studies. In association with the aforementioned authors, explanatory scope: “it goes beyond the concepts’ description or phenomena; is aimed to respond to the causes of physical and social events. It also implies the researcher comforts, the conditions and the variables in which the situation is being presented” (p. 95).

Based on all concepts previously mentioned, this project will take on a qualitative approach, now that it broaches the learning process in L2; it also involves the students’ behaviour, besides it will have an examination about the ESL process in students, making emphasis in reading comprehension, how they could put in practice different learning approaches as metacognitive strategies which let them becoming effectiveness readers. It will be adapted in the following line non - experimental - transverse, with an explanatory scope considering that we pretend to afford new learning conducts for helping students in their ESL leaning process through a learning aid, which have the purpose of strengthening reading as an important skill in L2.

## 6.2. Data Collection tools

It refers to the instruments used for collecting evidence, these tools could be; checklist, observation, surveys, interviews (computer-assisted system) and questionnaires, the last three named were the tools implemented for getting information in this project, hence, “it is a methodological process of gathering, analysing and evaluating specific information to proffer resolutions to relevant questions just like obtaining results. It focuses on finding out all there is a particular subject matter” (Brink & Nel, 2015, p. 50). The strategic goal behind research; is to catch the quality of any evidence which permits exploration, leading the formulation to convince and showing reliable answers to the questions that have been drawn up (Blog Formplus, n.d.).

### 6.2.1. Surveys

It is as a set of techniques designed to collect and process information that is given to people, the technique can be performed using four types; demographic, socioeconomic characteristics, behaviours / activities, opinions / attitudes (Briones, 1996). In addition, the intention of a survey is to produce statistics; it could be quantitative or numerical descriptions about some aspects of a population’s study. Generally, the information is collected suitable only with a fraction of the population. So, according to Williams (2007):

Survey research is one of the ways to gather data in the social sciences. In a survey research method, the researcher tends to capture phenomena; this method is used for sampling data from respondents that are representative of a population and uses a closed ended instrument or open-ended items. (p. 67)

As a final point, we did an interactive Survey which helped us to contextualise the population (advanced group from B.D. in Modern Languages at La Gran Colombia University) and to obtain information about their English learning processes.

### **6.2.2. Interviews**

Relating to Alshenqeeti (2014) “The qualitative interview is more personal, flexible and open than the quantitative one” (p. 402). So, the interview’s purpose is to gather descriptions based on the interviewee’s life experiences in relation to the phenomena description and its interpretation. Likewise, as Mathers, Fox & Hunn (1999) mention in their text: “The degree of the structure imposed on an interview will actually vary along it being implemented, also it is useful to think about the three main survey’s types: structured, semi-structured and unstructured” (p. 2).

However, it is essential to say that telephone and focus group interviews are part of these types too. So, we create an interview with the purpose of getting ideas about metacognition concept and usage of it. We interviewed in five teachers from the Education Department; they are experts in Didactics of English and Applied Linguistics; Correa Nicolas, Gomez Javier, Huertas Wilson, López Lorena and Sánchez William.

### **6.2.3. Questionnaires**

This is a process of collecting data through an instrument which consists of series of questions which requires of the individuals’ responses. There are three types of questionnaires; structured, semi – structured, unstructured, and there are also electronic,

printed, direct meeting questionnaires, self – interviewing, monothematic and multi – subject questioning (Hernández et al., 2014).

In addition, with reference to Fox (quoted by in Muñoz, Jara, Gonzalez & Díaz, 2018) a questionnaire;

It is a classic procedure in the social sciences for getting and recording data, its versatility allows it to be used as a research instrument as well as an instrument to evaluate people, processes and training programs. Besides, this tool is an evaluative technique that could cover quantitative and qualitative aspects, at the same time; it allows looking a large population up quickly and economically (p. 2).

So, in this research project will be applied a semi structured questionnaire, because it allows students who answered it; to give all their opinions and in the same way to supply direct answers. We made exercises adapted from IELTS Mock (reading, speaking, written and listening), with the purpose of getting academic students' information for analysing their English ranks, based on the Common European Framework, we applied it in an advanced group from B.D. in Modern Languages at La Gran Colombia University.

### **6.3. Methodological route**

The methodological route sets out by Jolly & Bolitho, 2011 (quoted by Tomlinson, 2001) a structure which takes into account project necessities. This following design is based on six steps; “1. Identification of need for materials, 2. Exploration of need, 3.

Contextual realization of materials, 4. Pedagogical realization of materials, 5 Production and use of materials, 6 Evaluation of materials against” (p. 135). (Figure 2)

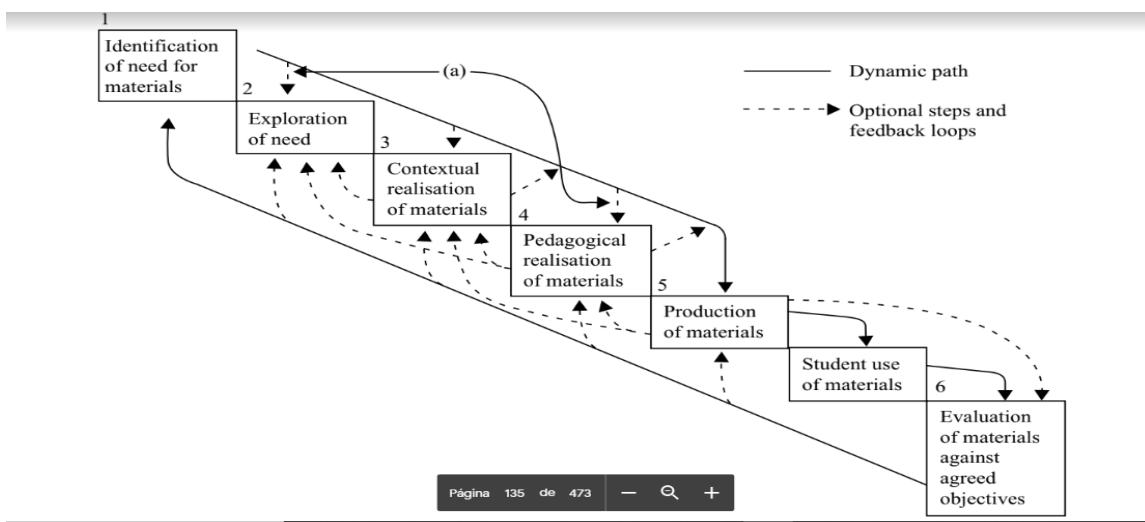


Figure 2. Methodological Route. taken from: “Material Development in Language Teaching”. Tomlinson, B., 2001, p.113

### 6.3.1. Identification of need for materials

In this project, the diverse ideas of strengthening reading comprehension arose when we noticed some English subjects; students could not get and understand all the information that they read. We analysed most of the issues presented at the moment of sitting for English exams, or any other tests.

The sources documents which were looking over in the *Problem Statement* were:

- “Leer”, ¿para qué?, article wrote by Parra (2014).
- SABER PRO Informe Nacional de Resultados, 2016-2017 (2018).
- PISA main results for Colombia (2018).
- UNESCO, La Mayoría de Latinoamericanos Culminan la Secundaria sin Saber Leer (2017).

These works broach the reading situation process concerning students who are learning a second language, what kind of complications they present at the moment to read, to understand the text content in L1 and how it is affecting the L2 process. Talking about the project background, the survey (appendix 1.), interview (appendix 4.) and the mock which showed that according to CEFR, the 53,8% of advanced group are in A2, the 19,8% are in A2+ / B1+ and only a 6,6% are in B2 (appendix 2.), however, it also demonstrated there is a necessity of the implementation and contribution in order to strengthen the reading comprehension skill; having the IELTS preparation as a support in this process, for that reason we want to produce a learning aid which could help students to improve their reading and second language learning process through metacognitive strategies.

Besides, with the ideas gathered we could analyse in the face of a Globalised world a huge percentage of students who conclude their studies without a proficient reading level in mother tongue, so, they do not reach the expertise ranges required in this ability, as a result they could not have basic skills, affecting their development in a second language process Segura (n.d.).

For that reason one of the important aspects to consider in this project is the population which are advanced students of second language learning belonging to Modern languages Bachelor's Degree, we looked over the students need to focus on their reading process; because they have to get a C1 certification at the end of their degree in any international exam, however, we know all the processes skills are essential but it's important to make emphasis in it for having an efficient development in all of them.

Therefore, this population is in an age range from 20 to 34 years so, into the project we took into account the language's level, that is supposed to be C1 at the end of the advanced course and the B.D. entirely. The proposal has the learning aid position in which students could strengthen their reading skill process through metacognition and new ways based on the infographic's structures, a different mode to show information.

### **6.3.2. Exploration of need**

Firstly, we analysed the Advanced Bachelor's Degree syllabus; if there are any proposal or learning aid which could prepare students to present international exams now that it is a requirement they need to get at the end of their degree, so, it is evident there is no mode which allows them to strengthen the language skills through any tool that should contain metacognitive strategies and let them to practice with a model of IELTS or TOEFL specifically, secondly, we looked over in the Saber Pro statistics test so it was evinced the last semester students in the universities in any Modern languages Bachelor's Degree do not have results expected in reading comprehension as much in English and Spanish too.

Secondly, we contextualised the situation with Colombian perspective where the statistics are discouraging in terms of new learning strategies application, reading and comprehending during the learning process of a second language, the point is most of the times in some institutions is certainly difficult for students understand the information captured in a text when they do not have enough skills to understand well in L1, so , at the moment to work on L2 texts become the reality in which teachers should implement new strategies which allow students to recognise the method they could learn in their own way.

Besides, in Colombia certain teachers tend to present the traditional strategies and they do not realise if their students are learning or not, maybe learners are getting the information but they are not processing because they do not know how to do it. Here is the importance to immerse students in new methods which let them to reflect on their own learning process, as we expressed in the *Problem Statement*; in Colombia reading in L1 is not the best one in the assortment comparing with other countries, so a lot of factors could influence into this process; motivation, decoding failures, poor vocabulary, interest, memory problems, lack of reading comprehension strategies and control of metacognitive strategies too. Nevertheless, there are many results in PISA test in which students do not reach the reading skill aims; in SABER PRO test students could not reach the purposes to read neither L1 nor L2.

In order to determine the elements which, define our learning aid, it was necessary to understand some concepts which could offer students a different way for practising reading comprehension through an active way without the traditional description, so in this case from metacognitive strategies. We decided to work on our own ideas in terms of articulate, create the content and the texts with the real purpose which is placing a practise with metacognitive and reading strategies.

We adapted some texts and articles according to B2+ / C1 level and we designed part of the activities' content; following all the steps that are necessary in an activity planning, the idea is to give a chance in which they could have a good process during the development of these activities which correspond to advanced lexical, fostering the reinforcement in some grammatical contents which have already seen during their B.D. in

Modern Languages. All contents that are proposed on this learning aid pretend to offer students a diverse sequence for learning possibilities, so, teachers are able to reinforce reading skill and try to become students self-directed of their processes.

### **6.3.3. Contextual realisation of materials**

In this part we could define the contexts where are necessary to implement metacognitive strategies for strengthen reading comprehension, as a recommendation it is important to employ this learning aid in advanced students now that they are in the moment of presenting the international exams which are demanding by MEN at the end of the Bachelor's Degree, with the purpose of obtaining C1 level. This time is essential to strengthen all skills in students during their second language process, even so, for developing this project we decided to focus on reading comprehension, it is a skill that allows students to have a better acquisition in their learning process.

The texts, fragments and articles we decided to use for this learning aid were:

1. How Humans Evolved Language: <https://bit.ly/2HGbAjA>
2. A Proposal to build a Solar Farm near a British Village called Barnley:  
<https://bit.ly/2TtcbaY>
3. Global Rescue Plan for Nature ‘Overlooks Genetic Diversity’: <https://bbc.in/3jqyI2A>
4. Memoirs of a Geisha: <https://bit.ly/31LbqOG>

These texts have been selected under the CEFR parameters, taking into account the level students who are in advanced (B2+/C1); we decided to propose it in this English group, now that they have to be able in handling all English skills accurately. All the activities are making an allowance for the students' profile, and we articulated the texts somehow, they could evidence how is working the metacognitive and the reading strategy proposed in the learning aid.

The idea for choosing these four texts come on the notion of IELTS tests model, for that reason we looked for texts which are related to common global situations as well How Humans Evolved Language, A Proposal to build a Solar Farm near a British Village called Barnley and Global Rescue Plan for Nature 'Overlooks Genetic Diversity', these texts include information which could be the interest to students correspondingly the way we proposed the activities, and how we work on the concepts presented.

#### **6.3.4. Pedagogical realisation of materials**

Jeremy Harmer (2007) recommends in his book How to teach English; he proposes six steps about reading principles:

- a. Encourage students to read, b. Students need to be engaged with what they are reading, c. Encourage students to respond to the content of a text / and explore their feelings about it, not just concentrate on its construction, d. Prediction is a major factor in reading, e. Match the task to the topic when using intensive reading texts, f. good teachers exploit reading texts to the full.

(p. 102)

The principal idea into the development of a reading learning material is to enthuse students about what are they reading, how could they understand all the information in a text, how do they feel and how do they start to use new ways for comprehending a text. This material has the intention to be useful as a learning aid; directly to students, it has the purpose of strengthening the reading comprehension process in the learning development of a second language. After we have selected the texts, we started to work on the real proposal in the activities which is the articulation of metacognitive, reading strategies and the presentation of each part the info given, in this case in an infographic tool. As well as Nediger (2020) VENNGAGE: What is an Infographic? says in his blog; “It is a collection of imagery, chart and minimal text that gives an easy-to-understand overview of a topic; however, an infographic uses striking, engaging visuals to communicate information quickly and clearly” (para.4). This tool could help everyone for improving any huge content because it has significant advantages over other formats.

This is a well-constructed tool which allows simplifying the information we want to communicate and to make more affordable the issues that a priori may be complex for understanding. Just as states Pollokoff (2016) in Killer Visual Strategies: Formerly Killer Infographics; it is a graphic representation that supports information and allows it to be translated into optical aid that everyone can understand at a glance. It is an incredibly useful communication tool, since by having a visual format; it is processed by the human eye much better. The visual elements which could be included in an infographic are: Icons, Illustrations or Drawings, Graphics, Images and Typefaces. Besides, it aligns the reader to have certain reading eyes behaviour which goes from left to right, from top to bottom; it

also proposes a specific combination of space, lines, colours, font to give the text prominence and to let the reader understand the sections contained (Nediger, 2020).

Thus, the reading strategies which we used in this learning aid are *Predict*: it could be explained as the anticipation or the future to solve situations on a daily basis, throughout experiences stored in brains, sensations as human beings are part of prediction due to this feeling's humans might react with happiness, fear etc. In other words, prediction could be applied to solve problems academics, personal issues, with the experience accumulated in lives. *Inference*: it is a guess or simply opinion about what is constructed and the information already acquired, this skill allows students to use their environment and their previous knowledge, so in order to resolve a reading test or create one inference might take part of this considering that they could use those situations for their benefit.

*Substitute*: it refers to the use of words or explanations already spoken or read equal to others, in order to avoid unnecessary repetitions which, affect the speech's aesthetics. The most common ways to substitute a word is using synonyms, so this strategy could be used with the intention to understand and ensure the coherence and cohesion in a text.

*Self-management*: it refers to the skills that individuals have to set by strategies, lessons plan, organisation in education and work. About the class room this can be applied based on the ability to take notes, ask questions, be part of the activities into the classroom, besides self-knowledge could be considered an advantage, which properties would be replicated in a timely manner when the students are participating with the class.

And *Selectively Attend*: it is described as the advantage to convert a text or document of 200 pages to 50. The application of this strategy allows the students to save a lot of time and to have positive comprehension, however, it could be possible thanks to the selection of keywords, and what is important in a text. In the same way each of these stratagems are related with three metacognitive strategies that are; *Planning*: it happens when teachers go inside preparation, basically it is the way which lets them know what and how they are going to teach; activities and materials. Lastly but no less important, planning and activities must be utterly articulated in favour of developing students' skills in the classroom.

The definition of *Monitoring*: is related to the observation as well the progress about a task or strategies that teachers are applying, this process shows if a student implements specific strategies, it makes to ask themselves periodically whether or not they are still using those strategies as intended. This strategy would help students to rethink if such a strategy is working as intended, and well basically the student would know if they are taking the correct path or not. *Problem – solving*: it catches a student's mind set or the typical difficulties, as Aurah, Keaikitse, Isaacs & Finch (2011) says, "it has been assumed that students will reach conceptual understanding just, through sufficient practise at problem solving. In other words, throughout experience is where students acquire the necessary mind control to establish priorities to solve problems even in real-life" (p. 11).

Therefore, we decided to build up a series of activities which accomplish the parameters that are part of it; an introduction; allowing and stimulating the students to realise in their previous knowledge, practising part; where they have to set the relation into

their previous with the information, they are obtaining during the activity process and the production ending which includes the usage of the new knowledge achieved. However, for the Learning proposal we took into account some theoretical elements which Carter, Hughes & McCarthy (quoted by Tomlison, 2001) mention for designing our learning aid;

1. A precondition for language acquisition is that the learners are exposed to a valuable, significant and logical input of language in practise.
2. In the method to take advantage of students' learning process in L2 usage; they need to be engaged in the language experience.
3. Language learners who achieve constructive communicative competence are more effective than those who do not.
4. L2 language students could benefit from using those mental resources which they normally employ when acquiring and using their L1.
5. ESL students could take advantage of input features and determine how they are using it.
6. Learners require the opportunities in language use for trying to reach communicative commitments.

#### **6.3.5. Production and use of materials**

Our learning aid was thought as a trainer for students' process in reading comprehension, this is a new method to implement in their development for improving their skills at the end of their Bachelor's Degree. The elements we decided for our learning aid are related to the topics which were planned for it (iconography, colours, banner, cover, etc.). Basically, talking about the dimensions; its measure is 210 x 297 mm and it has 29 pages. *Iconography*: This part is according to the specific commitments of how students might develop the activities proposed; we only chose five icons as it could see in the

following figure 3



Figure 3. Reading Symbols. Made my own

We think these elements presented are necessary for guiding the activities process so, *Vocabulary icon*; students should realise if in the section they find out the icon there are new terminology which could help them in understanding better the reading. *Activity icon*; it makes reference there are instructions for developing an activity “time to work on”. *Answer key icon*; it shows the spaces in which students should give their opinions or responses “time to put in practise what you learn and understand”. *Pre-reading icon*; it is associated with the moment students should react or give their ideas after complete the process to read. *Reading icon*; it demands students the moment of reading process and *Post-reading icon*; it is used for knowing if the students have comprehended specific information from the text.

*Colours:* It is based on the colour’s theory which helps us in defining how will be more attractive in terms of visualisation, so, we decided to work on blue and white for the contextualisation and the banner parts; it makes emphasis in the differentiation of each

section, however, for the activities part we organised it according to the task students should do, for instance; red (selectively attend), green (predict), purple (inference), pink (substitute), grey (self-management) and some of these sections have certain segments in black.

*Familiar Discourse:* The way we want to involve the students is through a familiar discourse, giving them the opportunity to feel comfortable with the content they are reading.

*Infographic:* We wanted to show the information to students in an easy way that is why we implemented some shapes with the info inside, and the texts too, everything with the purpose of developing different techniques to present a learning content.

*Illustrations:* These drawings were taken from website pages which transmit all related to the reading and metacognitive process, basically we used books and brains' images, giving them an approximation of the exercises.

*Activities' description:* We proposed five activities, each one of them has an articulation with metacognitive and Reading strategies. *1. Selectively attend:* it is composed by a video link which helps students to contextualise them in terms of the next topic, in the second part there is a text which has relation to the video, in the third part there is an exercise in which students should match the five parts that the text has with the topics, the idea is students could realise where they saw the information in the text, the fourth part they should analyse the statements in relation to the segments in the text, and at the end there is an exercise which demands in producing ideas based on what they already

read in the text but focusing on one word (Protolanguage) making a relation to the title (How humans evolved language). Finally, students could consider that without an explanation of the metacognitive usage (*Planning / Monitoring*) was done, they used it through their involvement in it. 2. *Predict*: Before to read; the first exercise demands the student to guess through an image what could it transmit? and where could the situation occur? consequently, the second part is related to read the title (A Proposal to Build a Solar Farm near a British Village Called Barnle) and say what would it be the text about? at the end they should read the text and complete the statements proposed. The final idea in this segment is the practising of *Planning / Monitoring*. 3. *Inference*: In the first part student should organise the words presented and complete the title of the text, in the second part they have to read the little two segments and write down what could they say about these concepts: Genetic Conservation Of Wild Animals And Plants In Relation To Part A (Green One); With The Part B (Blue One), At the end, there is the rest of the text, so in view of it, they should answer some questions (What did the Scientists say about dealing the draft plan in? What is weighted significantly for cultural and economic reasons? Taking into account the final paragraph; what is the author's final point, is it a conclusion or a summary?). It allows putting into practise *Problem Solving* strategy. 4. *Substitute*: The purpose of this activity is to work on language use, mainly, students should organise negative prefixes creating word formation in NEGATIVE form, in the second exercise the idea is to complete the sentences with the correct word formation, for the ending, the idea is students should to read a short paragraph from a book, there are some words in a cursive font, below it, are some groups of synonyms, they should select the correct one based on

the story's context, in here students are working on *Problem Solving* strategy . 5. *Self-management*: in this part we wanted to develop a short interview in which students could reflect on the conditions that help them in learning processes, so for that reason they are going to work on *Planning*, as a result we proposed a series of questions which would become the students to examine deeply their process and make a little review in how they look for new methods for learning in L2.

This learning aid determines language level in terms of students should be prepared for their improvement in English skills, however they have to put in practise all the language usage for doing the tasks proposed.

#### **6.3.6. Evaluation of materials against**

The learning aid approval was made by external evaluator who is Daniel Ricardo Pedraza, he belongs to the Education Department at Pamplona University as an English teacher and internal evaluator; who is David Peña Cita, he belongs to Education Department at La Gran Colombia University as Bachelor's Degree Coordinator. The development of a learning aid is a self-motivated process that could require changes, depending on the students' needs, experiences, knowledge and context.

The learning aid format could be found in the Appendix 3, in order to show the criteria and the scales which are evaluated.

#### 6.4. Results

In this part, we show the general aspects that were taken into account for the analysis: Methodology, Content, Format/Design and Metacognition usage. So, we present the different assumptions we could perceive after examining the evidence obtained from the validators and the interview which was made to some University teachers.

##### Data Collection tools

- ✓ **Learning Aid Rubric** (Appendix 3 – Format)
- ✓ **Metacognition Interview** (Appendix 4.)
- ✓ **Teaching Material Analysed by Two Evaluators (Internal/External)**

(Appendix 3.)

##### Analysis: External Evaluator 1 – Daniel Pedraza

**Methodology:** *Good Quality 4: There are clear didactics intentions; the content is applicable for the skill which is being improved. There is a logic articulation between the purposes and the skills which this material is focusing on. The instructions are frequently clear for understanding; it offers and contributes with advantages for reading processes in L2. The activities are precisely planned, attractive and articulated with the methodology's purposes. It is consistency in these aspects for being well comprehended.*

In this part the evaluator considered there is a clear intention between the content, the reading skill and the final resolution of this material. There is not misunderstanding in the instructions and the activities according to the students' level.

**Content:** *Medium Quality 3: Texts are well-balanced but the activities are not appropriate to the knowledge students' level, according to CEFR (C1). Parts of the*

*activities presented could catch some attention in the students. There is logic in the topics used for each one of the accomplishments. It is possible to browse and find the desired content, but the way of using it is not always spontaneous and instructions are misunderstood.*

In this part, the validator considered the activities are not equal to the students' level which is supposed to be C1 according to the CEFR, however the activities could be relevant for students but sometimes it tends to be misinterpreted and unstructured.

**Format and Design:** *Good Quality 4: The design is organised, clear and concise for the understanding and the integration contents. There is a suitable relation between texts (font), images, colours, it has good quality. There is an articulation among the activities projected with the iconography. It is accurately and aesthetically for learning process in L2.*

The format and design are well – organised, it makes the reader comfortable at the moment to read. There is an order between the iconography and the purpose of each activity.

**Metacognition usage:** *Exceptional Quality 5: There is a correctly interrelationship between the content in the learning aid activities with the reading strategies and the metacognitive strategies (planning / monitoring / problem solving). It is an accurate proposal and it makes sense in the advanced student's learning process; to strengthen the reading comprehension development.*

The most important thing in this learning aid is to contribute to the reading process using metacognition, so, for this part; there is an excellent articulation among the activities, its content and the strategies which give the determination to strengthen reading comprehension development in advance levels.

Analysis: Internal Evaluator 2 – David Peña

**Methodology:** *Medium Quality 3: There are clear some didactics intentions, the*

*content is appropriate but there is not logic, coherence and articulation between the purposes and the skills which this material is focusing on. The instructions are regularly clear for understanding; it tries to offer and contribute with a benefit for reading processes in L2, but is hard for rationalising.*

The validator has considered this learning aid has an appropriate content and good clarification, but there is not any order between the procedures and techniques. Talking about the logic, coherence, articulation; these aspects do not exist in the commitments with the skills that are suggested in this learning aid.

**Content:** *Medium Quality 3: Texts are well-balanced but the activities are not appropriate to the knowledge students' level, according to CEFR (C1). Parts of the activities presented could catch some attention in the students. There is logic in the topics used for each one of the accomplishments. It is possible to browse and find the desired content, but the way of using it is not always spontaneous and instructions are misunderstood.*

In this part, the validator considered the activities are not equal to the students' level which is supposed to be C1 according to the CEFR, however the activities could be relevant for students but sometimes it tends to be misinterpreted and unstructured.

**Format and Design:** *Average Quality 2: The design employment is lacking in visual resources; because of lowly quality of texts (font), colours and images, it makes difficult the understanding and assimilation content. It hardly ever shows the activities in relation with properly iconography. It is not accurately for learning process in L2.*

Format and Design format is really important in the moment to present the visual resources, the validator has considered this material does not have quality in the texts regarding font, talking about colours and images are not suitable. The iconography does not have any kind of connection among the activities and the real process in L2.

**Metacognition usage:** *Good Quality 4: The interrelationship between the content in the learning aid activities with the reading strategies and the metacognitive strategies (planning / monitoring / problem solving) is correct and it makes emphasis in the advanced student's learning process generating a possible improvement in the reading comprehension process.*

The validator considered: there is a connection into the content, the activities with the reading and metacognitive strategies, according to the improvement of the reading comprehension process.

Evaluator's Comments: The suggestions of both teachers were based on grammar mistakes, punctuation, syntax and the implementation of cites. One part that we did not have into account was; to place hyperlinks and bookmarks in order to have better accessibility to the content and to give the opportunity of interacting with the document. About the font which was used; there is not any consistency between the font of titles, subtitles and texts. Some instructions are not clear and well - organized, for that reason it is difficult for students to develop and follow the activities.

Teacher's estimation emphasises that the proposal is a good idea for being developed in advanced students but there are some points which decline the material's quality. First, there are mistakes in the introduction now that it is shown as a teaching aid, but we had to take into account that it is focused on learning students, so, the teacher suggested working on that concept, for making a differentiation. The metacognitive strategies are well presented but, in some sections, there is a lot of text, so, it could fatigue the reader.

As a final point, based on all comments, suggestions from the evaluators and the results in the Metacognitive interview, we decided to produce our last proposal which is *Reading + Metacognition: As A Good Practice (version 2.0)*, this learning aid has the same iconography, activities and general information which were proposed in the version 1.0, but about the colours, illustrations and infographics we decided to do a big change. We also took into account the colour's theory, so, for the information and contextualisation parts; we use light blue, then, for making emphasis on the three main concepts; we work on green, orange and pink. However, for the activities part; red (selectively attend), purple (predict), blue (inference), green (substitute) and grey (self-management). The illustrations have the purpose of giving more sense in each activity and in the specific concepts, so, all the information were well- organised in infographics to make the students' reading process relaxed. In conclusion, this proposal makes us think that teachers should help students with metacognitive strategies from an early age, so, they would be able to be more autonomous and self-regulate in their learning. Consequently, it is necessary to underline that metacognition is useful in reading development, so, teachers know this process could not be easy for students but it is essential they improve in the reading comprehension process.

## 7. CONCLUSIONS

Emphasizing on the objectives, the methodological route proposed and the evaluation made to the material, we designed two versions of our material, subsequently, we considered this learning aid reaching the goal wanted: to produce a material aimed at advanced students to strengthen reading comprehension process, by means of the use of metacognitive strategies besides, it was possible thanks to the comments and suggestions of our Evaluators. Taking into account the results of the evaluation made to the proposal, we underline that the material succeeded in linking metacognitive and reading strategies with the purpose of improving reading comprehension. On the other hand, we had to work on the format design and the way we decided to present the information using infographics, it was helpful, in order to allow readers in a different mode for reading texts.

Based on the review we made to the theoretical framework, we determined there is a deep vision of Metacognition and how teachers apply it with the purpose of complimenting students' learning processes, it goes beyond the common skills, but the one we wanted to highlight was reading. Not only is it useful to work on traditional models, the way is to build up in education processes a new construct which allows students to reflect on their development in learning.

The disadvantages we found during this process were based on time, now that we could not make the application of this material in a students' group, also, we could not

work on a specific time with the group because of external factors, besides, we did not have the complete support from all students' group, only we got support from 5 students. Another very important aspect was related to the students' levels now that, at the moment to apply the IELTS mock, some of them did not have the level required for La Gran Colombia University in its Syllabus. We have to underline the reason why we chose IETLS test as our mock, it was because of firstly, it has an interval of 2 hours and 40 minutes, there are diverse response's options in each one of the questions that students can get from this test; not only multiple choice, students have the possibility to place free answers (under the parameters). IELTS is based on deep comprehension skills and it also has a special format in regards to develop the reading part, that is why we plan the activities in the learning aid, similar to this international test. The evaluation of our material allows us to analyse if it could be used as a good tool for advanced students and it could be a good way to improve reading comprehension skill, activating their knowledge and the application of different strategies at the moment to develop any kind of international exam.

The evaluation of Metacognition usage was observed in the articulation of the activities proposed in the learning aid, this evaluation was carried through two teachers (internal - external), however, this part had the most relevant score that means our material achieved the main objective of this learning aid. At the end, we took into account all the comments from our evaluators, so, we could say this material was created thinking on the second language learning students, emphasising on strengthen reading comprehension skill, therefore, we could realise this material could be employed as an Autonomous Learning Aid, now that this proposal let the students to be autonomous and reflect on their

own schooling process, the purpose of this material always was focused on how students are going to put in practise these process facing the exam. As we mentioned previously, we could not implement the learning aid but we hope this material could be applied, however, we are certain that the strategies premeditated achieve the goal in order to strengthen reading comprehension, considering that, planning (helps to delimit what students need to learn and in which way they are going to learn the material and activities proposed), monitoring (estimate how effective the students are at judging their own comprehension process) and problem solving (to become aware of students' strengths, but also of their limitations. It makes students gain routine expertise, but not adaptive expertise because they develop speed and accuracy at repetitive problem solving, but fail to reach the ability to reflect on what they do or to adapt to solving new difficulties in a flexible manner) are essential during the learning process, though, we also articulate these metacognitive strategies with the reading strategies which allow the students to develop different skills at the moment to do an international exam.

As a final point, as future purposes we contemplate the application of this material in advanced students, and the specific analysis based on teacher / students' experiences with the implementation of this learning aid. We really hope this teaching could be a significant as a contribution to the ESL process in students.

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## 9. APPENDIX

### **Appendix 1. Interactive Survey**

All the information can be found out through these links: <https://bit.ly/3e6zJNF> // <https://bit.ly/3e0SfFC>

### **Appendix 2. IELTS Mock (reading, speaking, written and listening)**

All the information about the grades can be found out through this link:  
<https://bit.ly/3otxQhp>

To appreciate the of students' answers information can be found out in this link:  
<https://bit.ly/3juWCdd>

This mock can find out in the following links

**READING** <https://bit.ly/2HCVN4Y> // **LISTENING** <https://bit.ly/3e3nNLg>

**WRITING** <https://bit.ly/2TtsW5K>

### **Appendix 3. Learning Aid Rubric**

All the information can be found out through this link: <https://bit.ly/37JgRld>

### **Appendix 4. Metacognition Interview**

The Metacognition Interview format can be found out in the following link:  
<https://bit.ly/37IIjQ1>

The Interview results can be found out in this link: <https://bit.ly/35MGm2B>