UNIVERSIDAD TÉCNICA DE AMBATO

DIRECCIÓN DE POSGRADO

MAESTRÍA EN LA ENSEÑANZA DEL IDIOMA INGLÉS COMO LENGUA EXTRANJERA

Tema: **"PROBLEM-BASED APPROACH TO DEVELOP THE SPEAKING SKILL IN ENGLISH"**

Trabajo de Investigación, previo a la obtención del Grado Académico de Magíster en la Enseñanza del Idioma Inglés como Lengua Extranjera

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2018

A la Unidad de Titulación de la Universidad Técnica de Ambato.

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ÍNDICE GENERAL DE CONTENIDOS

LIST OF TABLES

LIST OF FIGURES

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FECHA: 29 de agosto de 2018

RESUMEN EJECUTIVO

El presente trabajo de investigación tuvo como objetivo analizar la influencia del enfoque de aprendizaje basado en problemas en el desarrollo de la destreza oral del idioma Inglés. Esta investigación utilizó un enfoque cuali-cuantitativo. Se llevó a cabo un estudio cuasi-experimental debido a la creación de una plataforma Moodle en base al Enfoque del Aprendizaje Basado en Problemas. El nivel de investigación fue biográfico y descriptivo. La población consistió en 53 estudiantes y 5 docentes del nivele B1 del Centro de Idiomas del campus Salache de la Universidad Técnica de Cotopaxi. Los instrumentos utilizados para esta investigación fueron una encuesta dirigida a los docentes y estudiantes con el propósito de verificar la utilización de este enfoque. Además, se aplicó una prueba previa y una prueba posterior oral a dos grupos del nivel B1, las cuales se aplicaron para evaluar la efectividad de la implementación del enfoque basado en problemas para desarrollar la destreza oral del idioma Inglés. Se denominó al nivel B1 "F" como grupo de control, mientras que el nivel B1 "M" fue el grupo experimental. Para verificar la hipótesis de esta investigación, se utilizó la prueba del Chi-cuadrado, en las encuestas y en la prueba

previa y posterior, se verificó con las pruebas de Wilcoxon y Mann-y Whitney. Se concluye que los estudiantes mejoraron significativamente en su producción oral después de la intervención con el enfoque basado en problemas en la plataforma Moodle. Los resultados muestran que el Chi-cuadardo, $X^2c = 90,998$ tiene un valor más alto que $X2t = 15, 5073$. Mientras en la prueba Wilcoxon y Mann-Whitney tiene un valor de (,000) lo cual es menor a (0,05) por consiguiente la hipótesis nula se rechaza. Además, los resultados en la prueba posterior demostraron un desarrollo significativo en la fluidez. Finalmente, se propuso un manual para la utilización de entornos virtuales y presenciales con actividades enfocadas al aprendizaje basado en problemas y el desarrollo de la destreza oral.

Descriptores: Enfoque Basado en Problemas, destreza oral, interacción, fluidez, aprendizaje colaborativo, aprendizaje auto dirigido, aprendizaje significativo, pensamiento crítico, plataforma Moodle, manual.

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DATE: August 29th, 2018

EXECUTIVE SUMMARY

The objective of this research was to analyze the influence of the Problem-Based Learning approach in the development of speaking skill in English. This research used a qualitative-quantitative approach. Also, it uses a quasi-experimental study because of the creation of a Moodle platform based on the Problem-Based Learning approach. The level of research was biographical and descriptive. The population embraced 53 students and 5 teachers of B1 level belonging to Language Center at Salache campus of Universidad Técnica de Cotopaxi. This research used instruments such as a survey administered to teachers and students with the purpose of verifying the use of this approach. In addition, it was applied an oral pre and post-test in two groups of B1 level, in order to evaluate the effectiveness of Problem-Based Learning approach implementation to develop the speaking skill in English. B1 "F" level was assigned as the control group, while B1 "M" level was assigned as the experimental group. In order to verify the hypothesis of this investigation, the Chi-square test was used in surveys and in pre and post-test, they were verified with the Wilcoxon and Mann-Whitney tests. It is concluded that the students improved considerably in their

oral production after the intervention with the problem-based approach in the Moodle platform. The results showed that Chi-cuadardo, X^2c = 90,998 has a higher value than X2t = 15, 5073, while in the Wilcoxon and Mann-Whitney test they had a value of (,000) which is less than (0,05); therefore, the null hypothesis was rejected. Furthermore, the results in the post-test showed an important development in fluency. Finally, a handbook was proposed for the use of virtual and face-to-face environments with activities focused on Problem-Based Learning and the speaking skill development.

Descriptors: Problem-based approach, speaking skill, interaction, fluency, collaborative learning, self-directed learning, meaningful learning, critical thinking, Moodle platform, handbook.

INTRUDUCTION

Problem-Based Learning (PBL) has been introduced into education in many professional fields. First, it appeared in medicine subjects, PBL became a feature of educational programs during the 1960s. Since then, it has been steady growth in different number of programs and institutions that have adopted PBL worldwide.

However, it is not always clear what exactly is being done in the name of PBL. There are a growing number of references in the literature to visualize that PBL is plentiful related to open-ended questions, meaningful learning, inquiry-based learning, problem-solving skills and high-order thinking skills.

Nowadays, many EFL teachers consider that teacher-centered approaches impede learners to gain meaningful learning since students only repeat phrases or memorize grammar patterns for a short time. This research focuses on enhancing the speaking skill through the analysis and solutions of real-life problems and using PBL strategies in order to develop interaction and fluency.

The PBL approach and the application of information and communication technologies like the use of Moodle Platform enable students to have an alternative and interesting way of active participation. Also, it supports students to be more critical human beings by means of self, peer and group assessment.

This research proposed a virtual and face-to-face environment. The course is divided into five stages adapted from Karyuatry (2014) which were developed inside and outside the classroom. The teacher is a couch rather than a provider of knowledge, and students became more self-directed.

The general structure of this investigation is divided into five chapters, which are briefly explained below:

CHAPTER I. - It focuses on the problem, its contextualization, and the corresponding critical analysis. It also mentions the prognosis, the formulation of the problem, the research questions, the research problem, the justification and the objectives.

CHAPTER II. - This chapter covers the theoretical framework development, where research background, philosophical and legal foundation are included. It provides information about the fundamental categories (independent and dependent variables). It states the hypothesis of the research.

CHAPTER III. - It contains the research methodology, the research approach, the level of research with population and the operationalization of variables. It focuses on instruments and techniques for data collection.

CHAPTER IV. - It incorporates the analysis and interpretation of results and the hypothesis verification through the application of statistical formulas.

CHAPTER V. - It reveals important conclusions and recommendations which result after the analysis and interpretation of gathered data.

CHAPTER I

THE PROBLEM

1. Research topic

Problem-Based Learning approach to develop the speaking skill in English

1.1 Problem statement

1.2.1 Contextualization

Nowadays, United Nations Educational, Scientific and Cultural Organization (UNESCO) has conducted the education in order to develop countries through schooling. UNESCO manages the paradigm of sustainable development, in which there are four dimensions: society, environment, culture, and economy. Within the scope of society, a quality education is promoted by UNESCO, as well as the application of various pedagogical processes and the improvement of the education environment. Because of the expansion of information and globalization, the learning of English as a foreign language has increased worldwide. Consequently, the learning and production of English Language is an important aspect of education its emphasis contributes to a quality instruction (UNESCO, 2003).

In Latin America, the current situation of English language learning seems to be substandard. A research carried out in Latin American Nations indicates that Ecuador, Guatemala, and Peru have a deficiency in learning English as a foreign language. Therefore, many governments are making important efforts to overcome this current situation. Likewise, the lack of systematic information and deficiency of research based on topics related to EFL have impeded the capacity of governments to adopt

approaches in order to improve the English language teaching in schools (Cronquist & Fiszbein, 2017).

Nevertheless, the English language learning and PBL have been developed in Chile rather than other countries along South America. Actually, Chilean government set a pathway to make Chile a bilingual country after 12 years. Thus, a group of 54 foreign language teachers gained expertise on the subject of Theories of Language Acquisition through the application of Problem-Based Learning activities for about 2 years of carrying out a research on the impact of PBL. Some results showed that teachers gained autonomy, strengthening their cognitive process such as critical and knowledge integration capacity, and developed their ability to synthesize information (Muñoz, 2017).

In Ecuador, There are some factors which have affected positively English language learning in public education. The main factor was the education governance and English reforms concerning economic prioritization and investment in Education. On the other hand, engagement with international countries has provoked an international involvement; businessmen need to speak English to gained new international markets, thus university students must approve at least a B1 level according to Common European Framework of Reference for Languages (CEFRL). Even though Ecuador is a multilingual country, indigenous peoples have been the beneficiaries of international education, organizations such as World Teach, which carries out free English language classes. Scholarship programmes have encouraged university professionals to improve the level of English because the government promoted the international mobility of students and faculty with international academic exchanges manly for lectures and researchers. In the primary, secondary and tertiary education, English is included in the school curriculum to promote the English dissemination. Lastly, the Go Teacher scholarship programme has contributed to educators' teaching training. Scholarship holders could experience a different culture who returned with

improved English language and pedagogical skills (British Council, 2015).

Currently, the Language Center belonging to Universidad Técnica de Cotopaxi owns three levels on English as a foreign language which is based on the Common European Framework of Reference for Languages. Learners must approve the levels A1, A2, and B1 in order to comply with the requirements of graduation as well as improve their professional profile. Even though, syllabi of the three levels of English focus on student-centered approaches, it was observed that teachers do not apply the PBL approaches, it was observed that teachers do not apply the PBL approach in order to enhance the development of the speaking skill. Hence, many students have faced enormous difficulties in speaking the target language, especially in B1 levels.

1.2.2 Critical analysis

1.2.2.1 Problem tree analysis

Effect	The class is based on teacher-centered approaches.	Teachers do not apply the PBL approach in class.	Educators' teaching is based on accuracy rather than fluency	The English teaching is focused on textbook activities.

Problem — Poor use of problem-based learning approach to develop the speaking skill in English

Cause	Students do not participate actively in class.	Students do not develop critical thinking skills.	Deficiency of oral interaction	There is no meaningful language learning.

Figure 1 Problem tree
Created by: Guagchinga, N (2018)

The Problem-Based Learning approach to develop the speaking skill is unknown; actually, the title is arising some problems in English language learning because of reasons that are mention in the following lines.

One of the reasons is the lack of students' participation in class; they tend to listen to the teacher more than convey ideas. The teacher-centered approach is a way of disengaging students in the class. This issue mainly happens since educators usually focus their teaching on traditional methods. Thus, students do not feel engaged; they just listen to the teachers' instruction and do activities. On the other hand, when teachers apply student-centered approaches, students are able to talk to each other and can discover new information on their own.

Nowadays, the teaching-learning process requires that students make a deep analysis of information to gain independent thinking. Unfortunately, another cause is the poor application of PBL in English lessons. Teachers do not work on tasks that conduct an inquiry or develop problem-solving discussions. PBL provides students a self-directed learning, as well as develops problem-solving skills. When teachers use PBL provides students a self-directed learning, as well as develops problem-solving skills. When teachers use PBL, learners assess, analyze relevant information, and are capable of solving complex problems.

Undoubtedly, the English language is learned at practicing it, instead of memorizing grammar rules. Another cause is the exorbitant repetition of grammar activities by learners. Educators' teaching process is based on grammar rules rather than practice the speaking skill. In addition, many traditional teachers are paying special attention to language form instead of enhancing oral production. This problem mainly happens because some teachers continue using grammar translation as the main method in English lessons. Teachers have neglected to embrace communicative methods. Learners usually complete worksheets and repeat a lot of grammar exercises.

Finally, most teachers agree that textbook in language learning is a mere guide. Hence, teachers should look for extra resources in order to promote meaningful learning. Unfortunately, teachers' poor focus on meaningful learning in class is affecting oral interaction. When teachers use extra meaningful activities beyond textbooks, students associate what they already know with new information that they would like to know. The extra material itself must have a logical meaning, thus learners feel more engaged, and participate actively.

1.2.3 Prognosis

If the problematic aspect of the low level of English speaking skill is not resolved, the consequences in the near future will be disadvantageous for students. Firstly, learners of UTC who study the English language program will not achieve an acceptable level of the speaking skill. Secondly, if teachers do not apply the Problem-Based Learning approach in class, the traditional education will continue focused on a teacher-centered class. In addition, classroom tasks will be unproductive in terms of oral production, students will not speak fluently and class participation will be inadequate without meaningful learning.

On the other hand, if a modification is developed by the teachers from traditional approaches to innovative teaching approaches like problem based learning, students would improve different learning aspects such as the critical thinking skill, cooperative work, and the speaking skill.

1.2.4 Research problem formulation

How does the Problem-Based Learning improve the speaking skill in English of B1 level students at Universidad Técnica de Cotopaxi?

1.2.5 Research questions

What types of Problem-Based Learning strategies develop the speaking skill?

What kinds of approaches do teachers use to improve oral interaction?

What is the impact of Problem-Based Learning on fluency?

1.2.6 Delimitation of the research problem

Field: Education

Area: EFL teaching

Scientific field: Problem-Based Learning and the speaking skill in English

1.2.7 Temporal delimitation

Academic period: April-august 2018

1.2.8 Spatial delimitation

Language Center – Universidad Técnica de Cotopaxi

1.3 Justification

This research was developed with the purpose of analyzing how Problem-Based Learning develops the speaking skill in English. First, the research is relevant because learners might improve the level of interaction as well as the level of critical thinking skill. In addition, English teachers are interested in students-centered approaches. Furthermore, Problem-Based Learning is one of the current approaches used to teach English. Consequently, PBL applies a variety of group work strategies, managing project, and holding leadership roles. Thus, the speaking development and self-awareness are enhanced.

Additionally, developing the speaking skill in students through Problem-Based Learning has been an interesting topic because teachers always seek to enhance speaking skill in order to improve students' interaction. In addition, this research increases the interest in teaching the English language through the PBL approach which inclines to gain meaningful learning.

Besides, this research is original because it has a proposal which owns a different interpretation of PBL, in order to develop students' speaking skill. Furthermore, there are not enough investigations about this issue at Universidad Técnica de Cotopaxi. On the other hand, this research focuses on blended environments such as online and face-to-face oral interaction which make it unlike to other researches.

In addition, nowadays higher education requires the application of student-centered approaches. This research is quite appropriate since university students are more independent, PBL embraces many features that stimulate learners to be more autonomous using technology as a tool of learning English. Likewise, PBL is a new trend worldwide that enhances high-order thinking skills.

This research has a social impact on university students because it promotes social interaction through the speaking skill which increases teamwork in students. Additionally, this pretends to resolve the problem of low level of English speaking skill that students face every class.

Finally, the research is viable because, it has the approval of university authorities, as well as coworkers and students cooperate with this research. As a final point, the development of speaking skill is beneficial for learners because must take an oral exam at the end of B1 level.

1.4 Objectives

1.4.1 General objective

To analyze the influence of Problem-Based Learning approach in the speaking skill development in English of B1 level students at Universidad Técnica de Cotopaxi.

1.4.2 Specific objectives

- ❖ To determine the types of Problem-Based Learning activities to develop the speaking skill.
- ❖ To diagnose the teachers' application of Problem-Based Learning approach to enhance oral communication in class.
- ❖ To identify how Problem-Based Learning influences on fluency development.

CHAPTER II

THEORETICAL FRAMEWORK

2.1 Research background

This section shows a variety of scientific articles investigated worldwide and a research carried out in Ecuador at UTA. They emphasize the independent and dependent variables. Most of the researchers point out that PBL is an approach and only one considers it as a method.

Rohim (2014), investigated how to enhance speaking performance through Problem-Based Learning approach. This study was applied at an Iraqi secondary school in Kuala Lumpur, Malaysia. The man objective of this study was to improve the speaking skill from the perspective of learners' obstacles during their academic life. The investigation applied a quantitative-qualitative approach. The first conclusion revealed that the PBL approach motivated students to speak English inside the classroom as well as developed self-confidence. This article contributes to this current investigation in terms of speaking development since PBL improves pupils' speaking ability and motivates them to gain self-confidence in class.

Another article proposed by Lin (2017) focuses on the application of the PBL approach in the classroom. This investigation was applied at the Institute of Applied English, National Taiwan Ocean University. The main purpose of this study was to examine the effect of the integration of the Problem-Based Learning (PBL) approach in English. The main conclusion focuses on the participants' interaction inside and outside the classroom through the application of PBL. This article is quite useful for this current research because after applying the study, the data revealed that through

the application of PBL, learners developed their speaking skill, and interacted after English class.

As Ansarian and Shafiei (2016) point out, PBL has an impact on learners' speaking proficiency. This investigation was carried out at the International Academic Center in Australia. The objective of this research was to study the effect of PBL through cognition-based task on learners' speaking proficiency in contrast to the effect of objective-based tasks. The researcher employed a true experimental design to ninety-five learners. A test was applied as a technique; it was administered in two homogenous groups. The first result revealed that participants' speaking proficiency increased significantly through the implementation of Problem-Based Learning in cognition-based tasks. A second result revealed that PBL was quite appropriated for English learners.

Amirudin (2014) focuses on PBL material as a way to develop English learning and the speaking skill. This study was carried out at MA School in Singosari Indonesia. The objective was to improve the speaking skill of tenth-year students. A quantitative-qualitative research design and an action research were employed in this study. To collect the data, the researchers used an observational checklist and a questionnaire. It was concluded that PBL developed the speaking skill and enhance cooperative learning. This is quite important for this current investigation since the findings show an enhancement in the speaking skill through the use of PBL, which supports to teachers in terms of satisfactory results in assessment.

Another research by Hamid (2014) went deeply into the effect of using PBL in the speaking skill. This research was applied to second year students of SMA school, in Bantaeng, Indonesia. This study expected to determine the effect of using PBL method toward students' speaking skill in terms of vocabulary. The author used a quasi-experimental research and a cluster sampling as a technique. The main

conclusion of this research revealed that PBL improved the students' speaking skill in English and develop learners' lexicon. This article contributes to this current research in speaking and vocabulary development.

Othman and Ismail (2013) researched PBL in the English language classroom. This investigation was applied at International Islamic University in Malaysia. The objective was to investigate the effects of PBL on students in two control groups: course content and language development. This study employed an experimental research design. The author drew the following conclusion; the language development group showed more improvements in language especially in writing, students presented their ideas in a critical manner. This article reveals that PBL improves critical thinking skills as well as the writing skill.

In a study carried out by Hussein (2014), this researcher explained the application of PBL as a mean to improve students' speaking skill. This investigation was applied at Bandar Lampung University in Indonesia. This research aimed to find out the influence of the application of PBL in the speaking skill. The author applied an experimental research. The first conclusion determined that PBL is more effective than standard teaching. PBL is useful for teaching speaking and enhances cooperative learning. These conclusions support this current research in terms of articulating PBL with speaking development and its impact on students.

Another research produced by Khotimah (2014) emphasized that PBL as a mean to improve students' speaking skill. This study was applied at Senior High School, Indonesia. This research purposed to know the application of PBL as teaching method in improving the speaking ability. The author concluded that there were significant improvements in students' speaking skill, and learners enjoyed learning English. This conclusion supports the researcher investigation since PBL motivates students to learn English.

Finally, Vera (2016) in her master's dissertation verified the impact of PBL on the development of the speaking skill in English. This research was developed with students of C1 at Universidad Técnica de Ambato. The main objective was to demonstrate how the Problem-Based Learning application impacts on the development of the speaking skill. This research applied qualitative-quantitative methodology and the research design was quasi-experimental. This study mainly applied a test and the observation as techniques. The post-test showed better results in the speaking exam. This study contributes to the researcher's investigation since after the intervention with the PBL approach; it was revealed that university students improved their grades in the speaking skill.

2.2 Philosophical foundations

The research is focused on the critical paradigm; critical because it analyzes language learning through the problem-based approach. In addition, it emphasizes on causes and effects in order to seek an alternative solution to improve the speaking skill.

On the other hand, this research is based on the cognitivist paradigm proposed by Chomsky in 1959. The cognitivist paradigm focuses on the role of the mind in linguistics. The human mind is valuable and very necessary to understand the way that people learn. Cognitivism analyzes how mental processes help to produce language; also language knowledge is part of people's mind. Barman (2012) explains that cognitivism transform ideas in the mind as a computer since the information comes in which is processed and gives certain outcomes.

The cognitivist paradigm encourages students to process their own knowledge, according to their needs and interests. Learners are able to do authentic tasks that resemble real situations; likewise, cognitivism promotes teamwork by generating

learners to share their ideas through an active participation in the English class.

2.2.1. Epistemological basis

This research had an epistemological foundation since it considers learning theories. Teachers are in charge of making choices concerning how to approach their teaching based on students' needs within many different learning contexts that teachers face. A person learns during his/her entire life and all the time. Thus, this research is an outstanding learners' chance to improve in the English language by enhancing their oral production through the application of PBL.

2.2.2. Axiological basis

Beyond teaching content and the development of language skills, the teaching-learning process involves the teaching of values; actually, values, content and language work together. This research focuses on students' active participation since PBL requires collaborative work in order to enhance the speaking skill; thus, the application of values is vitally important to create learners' self-confidence and a very welcoming group of interaction.

2.3. Legal basis

This section provides some legal facts concerning education as a right and the importance of English language learning. The research legal basis is found on Constitución de la República del Ecuador (2008) and Reglamento de Régimen Académico (2013).

In Ecuador, education is a public good, the State ensures education for all citizens free of charge in the primary, secondary, and tertiary education. In the article 26 of the Constitución de la República del Ecuador (2008), the education is a right that all people own. It is a priority for State that people can take part in the education trains professionals academically with a scientific and technological vision. These articles of the constitution support to this current research since it will contribute to the development of Ecuador in terms of education. Also, this study will be available for students and teachers in order to enhance the higher education, especially in English learning.

In the article 31 of the Reglamento de Régimen Académico (2013) the learning of a foreign language in Ecuador is mandatory for tertiary education, students must achieve a B1 level. This level must be aligned to the common European Framework for Languages. In addition, master programs require a certain language level; consequently, candidates need to manage a foreign language to be accepted by the university. This article shows the importance of learning a foreign language such as English, which is necessary to develop students' profile.

Super conceptual ordinance

TEFL

Methodology

Student-
Centered
Approach

Problem-
Based
Learning
Approach

Language

Skills in the
English language

Productive
skills

Speaking
skill

INDEPENDENT VARIABLE

DEPENDENT VARIABLE
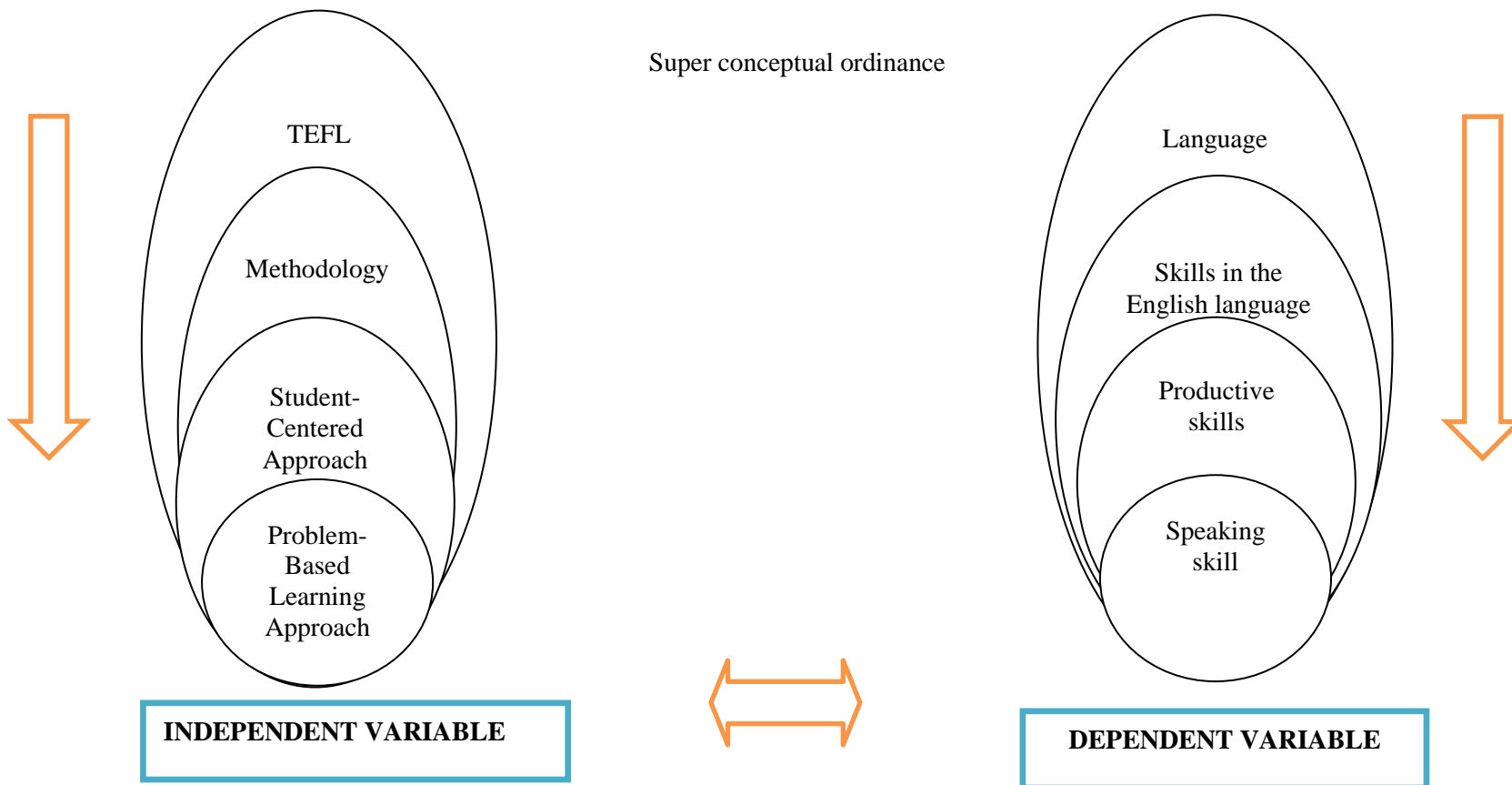
Figure 2 Key categories
Created by: Guagchinga, N. (2018)

DEFINITION

CHARACTERISTICS OF PBL

TECAHER'S ROLE

ASSESSMENT OF PBL

PROBLEM-BASED LEARNING

ROLES

STUDENT'S ROLE

PBL ONLINE

STAGES OF PBL

PBL ACTIVITIES

DISCUSSION

TALKING CIRCLES
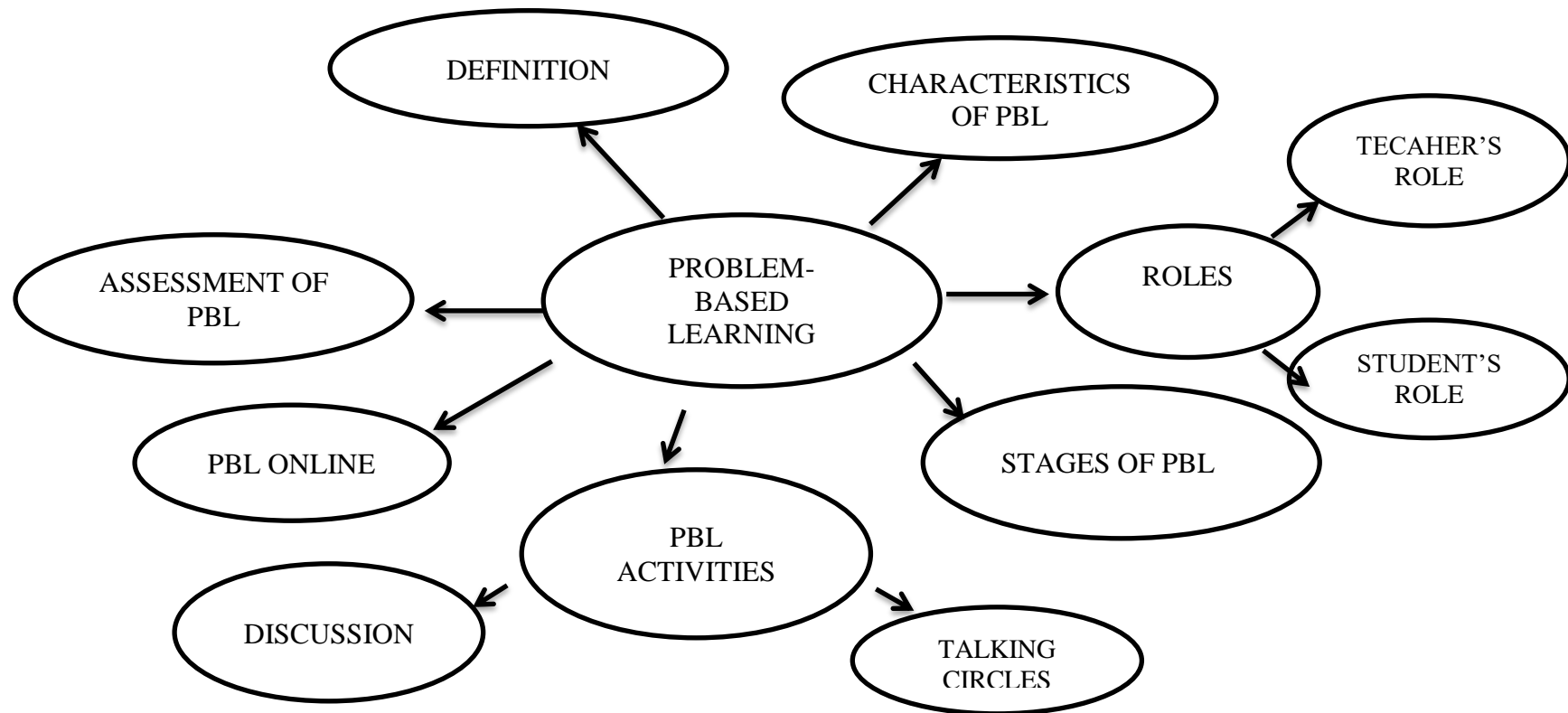
Figure 3 Independent variable interrelated graphics
Created by**:** Guagchinga, N. (2018)

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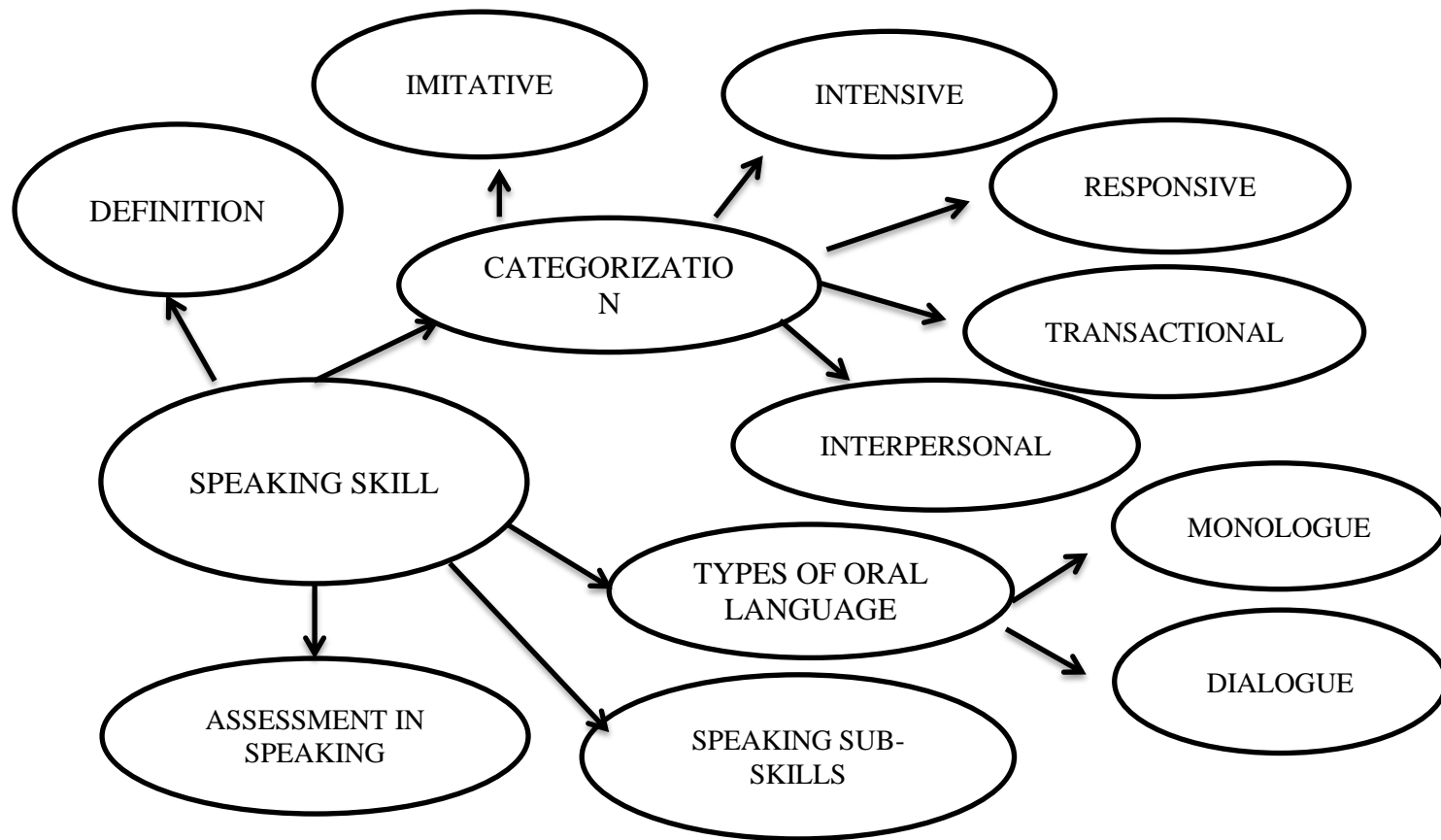
Figure 4 Graphics dependent variable
Created by**:** Guagchinga, N. (2018)

2.4. Independent variable theoretical support

Problem-Based Learning (PBL) is unfamiliar for many foreign language teachers. However, PBL has been applied in education and it has gained power in English language learning in recent year. Within this section, the researcher's literature review outlines the importance of teaching English as a foreign language; also, it discusses some elements in methodology. This section compares students-centered approach and traditional approaches. Then, the researcher goes into detail in Problem-Based Learning, establishing some definitions and characteristics. It is indispensable to explore teacher and students' role as an essential component of PBL. It explains five stages that the teacher should follow when using PBL in class. Furthermore, in order to contribute to the development of the stages and taking into account that PBL enhances the speaking skill, this literature review includes some useful classroom activities. Finally, this section discusses how to assess students from a formative perspective.

Teaching English as a foreign language (TEFL)

To many people, the English language learning may take a back seat to the communication among people. It is often overlooked and may be deemed irrelevant. However, teaching English as a foreign language has an essential role in a person's life. English language learning has been a priority in countries where there are not native speakers; even it has become the language which children and young people are learning today, at the middle and tertiary education, and this one of the most available in the market.

In addition, nowadays EFL is gaining status in countries because of the globalization in terms of technology, more people are immersing in English since every day more gadgets are applying the English language to gain more international markets. What is more, TEFL is widely taught in education in over 100 countries; actually, it is displacing other languages. English helps people to

have access to the media, libraries, schools, and institutes of higher education worldwide. Finally, more EFL professionals are developing the language skills in order to increase learners' proficiency level which contributes to countries to gain power around the world (Crystal, 2003).

Methodology

It is well-known that methodology is a set of approaches, methods, and techniques. These terminologies have been difficult to differentiate. Brown (2000) referred to them as interconnected. First of all, methodology refers to pedagogical practices that help the teacher to know how to teach. On the other hand, an approach is a set of beliefs, assumptions, concerning the nature of language which needs to have theoretical foundation. A method has objectives which are achieved with systematic procedures or techniques applied outside or inside the classroom. Lastly, a technique is a variety of exercises, activities, or tasks that are used in order to reach lessons aims (Brown, 2000).

Teaching methodology is often associated with the selection of techniques and procedures which justifies learners' tasks. It is employed when one teaches content or experiences. The act of teaching has sequential procedures; it involves methods, techniques, and strategies. Overall, methodology focuses on facilitating teachers' daily work as well as it encourages them to make a deep analysis of their own work. Currently, teachers search for new means to develop their teaching-learning process based on present-day methods and other teachers' experiences (Nunan, 1991).

Student-centered approach

Commonly, teachers used to talk or lecture too much time during the English class explaining grammar rules and concepts. As time passed, learners use to take notes and get bored because of the lack of engagement even they tended to fall

asleep; that is called as a teacher-centered learning which is a traditional style of teaching-learning. Nowadays, students-centered learning (SCL) provides opportunities to break traditional styles. SCL offers students new learning experiences; they are able to talk to each other, in peer-to-peer learning and develop teamwork activities. Learners feel engaged because they have a voice in class. They do not only require a right answer, students inquire, challenge, and debate instead. SCL enhances a self-directed learning, promotes motivation and sometimes the teacher becomes the student (Richards & Renandya, 2002).

Problem-Based Learning

Definitions

It is important to consider that Problem-Based Learning (PBL) was initially applied in medical schools. Students required to be prepared for the real world. Then, because of its contributions to education; it was widely taken in different areas of education such as engineering, science, and in the context of teaching English as a foreign language (TEFL).

To many teachers, PBL can be unfamiliar with education especially In TEFL, some educators usually wonder about the meaning of PBL. It is teaching method that applied to real-world problems; it is used in order to promote the development of critical thinking skills, problem-solving abilities, and communication skills. It can also encourage learners for working in groups, they become more self-directed students and problem solvers (Torp & Sage, 2002).

One important aspect of PBL is the learners' interaction. The teacher becomes a facilitator which contributes to boosting learners' active participation. PBL is well-known as a student-centered approach in which students develop problem-solving skills and content knowledge. Learning is more active rather than passive; the learning process has a coherent connection with the activities that students

perform rather than disjointed tasks. Learners feel engaged with the content since they work collaboratively, and switch ideas among them. PBL includes activities such as group discussions, research projects, and presentations (Levin, 2001).

Characteristics of PBL

There are many essential features of PBL that are quite similar but there is a variation regarding terminology. Most of the authors agree with some characteristics. This section of the literature review focused on revealing authors' agreements in order to bare the relevant characteristics of PBL. Othman and Ismail (2013) suggest some important elements that embrace other research sources; they provide a baseline in order to make a comparison with other components.

The following list by Othman and Ismail (2013) focused on six essential elements that make PBL useful in education. Firstly, PBL is based on student-centered learning; it is a non-traditional approach. Second, learners become more independent since they are self-directed. Third, communication skills are vitally important to solve an authentic problem; learners develop problem-solving skills. Another element refers to inquiry since students search for information that is considered relevant and useful in order to defend and argue their solutions. Collaboration is an indispensable element in PBL; learners enhance collaborative work when they discuss to find an answer. Finally, the most important component embraces the development of higher-order thinking skills; it creates students' new knowledge and develops meaningful learning. Other sources do not necessarily provide such structured list, but ratify some similar elements.

PBL pays special attention to the teacher's role as a facilitator, the essential elements lie in ill-structured problems and the open-ended problem solving that forces learner for inquiry. Savery (2006) suggested that one of the most difficult aspects of adopting PBL is the transition from the teacher as a lecturer or

knowledge provider to as a facilitator of content. The essence of PBL bases on developing learners' autonomy; student-centered approach makes learners more self-directed, thus the teacher needs to manage teamwork dynamically. This author emphasizes the need for integrating theory and practice; students read some information, and then put into practice at finding different solutions. Lastly, an important element focuses on identifying the root of the problem to obtain a good solution. Whether an educator is a facilitator, the learners' assessment becomes objective rather than subjective. This idea is described below.

The manner how the teacher assesses students is vitally important in PBL. Teachers should be conscious of diversity in terms of opinions, considering that students apply the open-ended problem solving; they participate actively sharing their ideas, and also discuss and compare their findings. Consequently, there will be many different solutions to the problem. In addition, students defend and argue what they found instead of presenting their solution only. This characteristic demonstrates that students develop critical thinking skills as well as they really maintain an active communication. Hence, the teacher assesses students' participation, and the way learners defend their solutions. Lastly, students achieve rich experiences after receiving classmates' approval or disagreement (Levin, 2001).

All in all, traditional teaching focuses on the ability to memorize concepts. While modern education argues this idea since students are who analyze concepts in order to make a new one. The characteristics mentioned before defining PBL as an approach that permits learners to discover new solutions on their own. They do not expect to gain knowledge through teachers' explanation; they search and discuss such problem to find a solution. Hence, the problem has many answers. Finally, the teacher becomes an instructor or facilitator, thus the learner becomes more self-directed.

Roles

Teacher's role in PBL

The previous section concerning the characteristics of PBL has revealed that something is quite clear about teacher's role; he/she is not a traditional teacher who used to be the center of the attention. Also, the student is more autonomous in terms of learning. Teachers should understand the difference in nature of their new role. Delisle (1997) described the teacher as a facilitator who guides the student through the problem. Using an analogy between a facilitator and a couch, it is easier to understand the teachers' role in PBL. The couch in a soccer game is vitally important before, during and after the game. He is in charge of establishing the structures, and trains to soccer players, encourages them, and plans how to win. However, soccer players are actually who play and seek the manner to face different issue while the game is in process. Now, the stadium is the classroom and the game is the learning. The teacher provides learners the structure of the class, setting up the problem and guiding the process, the facilitator must clarify students' doubts at the same time that encourage to work and they share ideas as a team, but students' must find solutions by themselves. This section shows that the teacher is not the center of the attention in PBL.

Another source goes deeply into explaining that the teacher should have a short period of time to class lecture and facilitate the discussion. The facilitator introduces the problematic situation in order to determine what learners already know about the topic. One of the main roles is the way the educator divides students into groups in order to develop interaction. Students receive systematic activities in which the teacher plays a serious role in helping students to become self-directed. It is necessary to mention that the teacher motivates the discussion among learners. The most important aspect emphasizes that the teacher is a listener and guider (Turan & Elcin, 2009).

Student's role in PBL

Some of the student's roles in PBL have been mentioned in the previous sections. PBL emphasizes that the teacher is a facilitator and the student is an active participant. First, students use the language for real communication; they discuss the problem in order to catch a solution. The teacher provides a problem; it might be a case, controversial topics, a video, etc. Students assume an active role in searching for information; consequently, pupils need to work actively in the learning process. More importantly, learners need to define what they already know about the issue and what they do not know. Both factors engage students to develop higher-order thinking skills. Constantly students ask questions about aspects that they do not understand, most of them to clarify their ideas on their own. At this point, leaners integrate all the information into the context of the problem, summarize their research, and share ideas with group members in order to find the best solution. Every problem is different, but students need to reflect on better problem-solving strategies. In short, students are self-directed learners and active participants (Maudsley, 1999).

Stages of PBL

PBL has been applied in Medicine for ages, and there are many ways that teachers can apply PBL in class. This section suggests five stages which facilitate the application of PBL in teaching English as a foreign language. These stages provide a good classroom management; also teachers monitor and guide students effectively. In addition, there is a better interaction between students-students and teacher-students. Karyuatry (2014) explains that the teacher should focus on the following five stages:
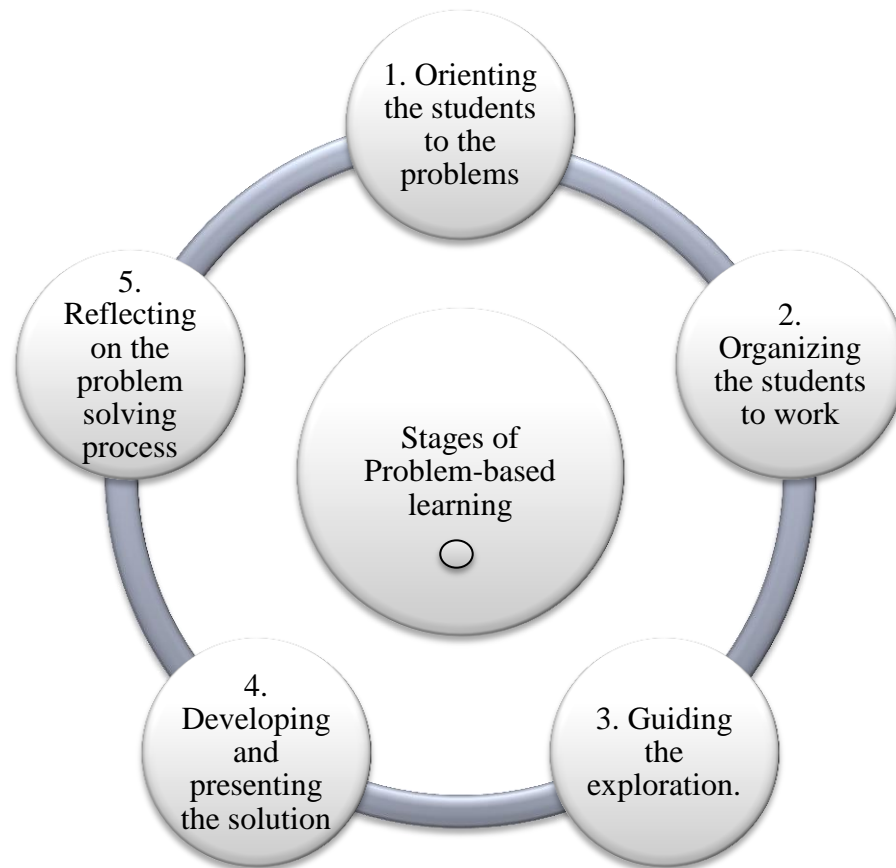
Figure 5 Five stages of PBL
Source: Karyuatry (2014)
Author: Guagchinga N. (2018)

1. Orienting the students to the problems

The first stage focuses on revealing how to orient students to the problem. They familiarize with the problem by using flashcards. The purpose of this activity is to engage students and introduce the problem. The teacher asks questions about what students see on the card; this activity motivates learners to speak and share their ideas actively. More importantly, the teacher realizes what students already know about the problem when verifies learners' background knowledge (Karyuatry, 2014).

2. Organizing the students to work

Once the teacher introduces the problem; organizes students to work in groups. It is quite important to have homogeneous groups, taking into account students' proficiency. The teacher must divide students into groups of four or five. It is not recommendable to work with a large-size class. Then, the facilitator reveals the problem; it must be related to a real-world issue, such as animals in endangered, crime, violence against woman and more controversial topics. Consequently, the teacher describes in detail the problem. Duch and Groh (2001) pointed out that a complex ill-structured problem challenges students to go beyond general wisdom. For example: Determining what really is happening with the armed conflict between Syria and Israel. This kind of problem is more complex; therefore, this requires more research but develops high-order thinking skills. Finally, the teacher guides students to define and organizes the task.

3. Guiding the exploration.

The third stage focuses on guiding the research, the teacher guides student by student or as a whole group and monitors the discussion and solutions. Students are required to search for authentic information in order to solve the problem. Then, learners brainstorm about the issue and solutions. At this point, learners become self-directed; they discuss the best solution, and respect classmates' points of view. Also, they must participate actively in the discussion. Thus, students analyze all possible solutions by making a graphic organizer; it compares possible solutions, advantages, and disadvantages in order to conclude with the final solution of the group. An example of graphic organizer for problem-solving by Bellanca (2007) is described below.

```
                    ┌─────────────────┐
                    │  Problem:       │
              ┌─────┤                 ├─────┐
              │     └────────┬────────┘     │
              ▼              ▼              ▼
   ┌──────────────┐  ┌──────────────┐  ┌──────────────┐
   │ Choice #1:   │  │ Choice #2:   │  │ Choice #3:   │
   │              │  │              │  │              │
   └──────┬───────┘  └──────┬───────┘  └──────┬───────┘
          ▼                 ▼                 ▼
   ┌──────┬───────┐  ┌──────┬───────┐  ┌──────┬───────┐
   │Pros: │Cons:  │  │Pros: │Cons:  │  │Pros: │Cons:  │
   │      ┊       │  │      ┊       │  │      ┊       │
   │      ┊       │  │      ┊       │  │      ┊       │
   └──────┴───────┘  └──────┴───────┘  └──────┴───────┘
   ┌──────────────────────────────────────────────────┐
   │ Solution:                                         │
   │                                                   │
   └──────────────────────────────────────────────────┘
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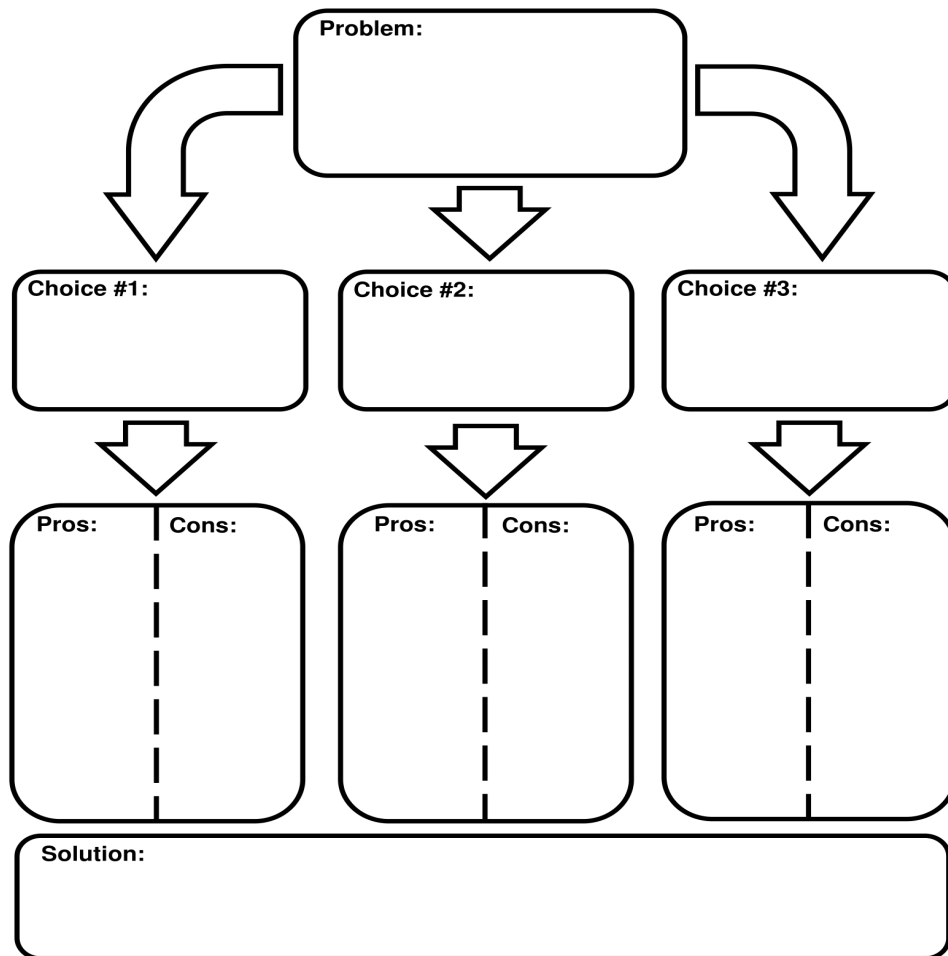
Figure 6 Graphic organizer: Problem solution
Source: Bellanca (2007)
Author: Bellanca (2007)

4. Developing and presenting the solution

Developing and presenting the solution is another essential stage in PBL especially to develop the speaking skill. Learners prepare the solution; it is possible for the group to produce more than one answer. In addition, they report to the class the process that they have applied to find the information and the solution, as well as the difficulties that they faced. Learners can use images, mind maps or other visual aids to present their findings (Karyuatry, 2014).

5. Reflecting on the problem-solving process

Finally, the group of students reflects on how they tackled the problem, and how to achieve the solution quicker. They express what they already knew, what they wanted to know and what they learned about the problem, as well as their role in the group. Hence, teamwork is an essential aspect of PBL; it develops interaction, also students feel comfortable at expressing their ideas and asking questions; furthermore, they feel important members in each group. However, teamwork always needs guidance to work efficiently (Karyuatry, 2014).

PBL activities

Problem-Based Learning requires some specific speaking activities in which students search factual information, explain, and convey particular ideas to find a solution. Also, taking into consideration that PBL is not focused on teacher-based instruction, the following activities are based on the transactional dialogue which is explained in the literature review of the dependent variable. Hence, this section will present two communicative activities such as discussion and talking circles.

Discussion

Unfortunately, the use of discussion is not common in EFL classrooms because of some factors: large class size, students' level of proficiency and time-consuming. Nevertheless, the use of discussion is one of the best ways to practice oral production; it helps to foreign language learners to enhance communicative skills. Students express their ideas freely, organize their ideas by themselves, resolve some different points of view through interaction find alternative solutions, clarify ideas, and what is more, students become more independent (Richards & Renandya, 2002).

Fortunately, there is some information regarding discussion activities in speaking

skill development and PBL, but this research focuses on one specific kind of discussion. Pyramid discussion is a specific activity to PBL; it is an organizational oral activity proposed by Scrivener (2011). This activity focuses on simple problem-based discussions.

There are some steps that the educator needs to follow in pyramid discussion. First, the teacher introduces the problem using pictures; students observe them and brainstorm the problem. Second, students reflect on a possible solution; they can use extra information or their own experience. Third, the teacher combines individuals to make pairs; two participants discuss the solution in order to find an agreement or disagreement. Finally, pairs are combined to make groups of four; they discuss the solutions as well, students form progressively larger groups. The teacher verifies if there is just one solution, the more solutions are the better (Scrivener, 2011). The objective of this oral activity is to develop students' oral interaction. Students listen to classmates' points of view, thus they gain more self-confidence, having more opportunities to speak.

Pyramid discussion requires teamwork to achieve satisfactory results. There are some factors that the teacher must consider at forming groups. (Richards and Renandya (2002) suggest that dividing the class into groups is actually one of the critical elements that the teacher needs to keep in mind since it is not simply number students to form a group. First, the willingness of all the participants takes an important factor to contribute to the group. Second, knowledge and experience about the topic or problem under discussion. Third, personality types, such as extroverted and introverted students since extroverts are more likely to communicate actively. Another factor is the student's skills; the teacher must pay special attention to students' linguistic abilities, some learners are good at speaking and others are good at writing. Finally, groups must be homogenous in order that each member of the group has opportunities to participate in the discussion. Brown (2000) agreed on the previous factors and asserted other elements such as age and gender differences; most students like participating with

students of the same age, and opposite gender. Lastly, the cognitive style, some students process the information visually and other ones verbally.

Talking circles

To many students, it is difficult to respect turn-taking or classmates' ideas whilst someone is talking to them. When a member of the group has conveyed their ideas, classmates tend to criticize or judge him/her, which causes annoyances. In order to provide students equal chances to talk and gain more self-confidence, a speaking activity suggested by Kay (2014) helps to enhance students' participation.

Talking circles provide some characteristics that help students to share their points of view. It encourages learners to participate in an orderly fashion; actually, each student participates by turns. All the participants must respect others' opinions since there is no only one right answer. Talking circles focus on solving real-life problems through the consensus in the group (Kay, 2014).

There are some steps that students have to follow during the interaction. These steps will help to control the group in such way learners can have the opportunity to speak. Firstly, the teacher divides the whole group into smaller teams of four or five students. The different factors in forming groups suggested by Richards and Renandya (2002) and Brown (2000) are useful at this point. Then, students sit making a circle shape. The teacher explains that only one student will speak at a time, while the rest of the learners will listen and take notes if it is necessary. Every single student needs to receive comments from other members of the group. It is vitally important that the teacher encourages students to focus on the speakers´ argumentations, rather than judging what the classmate should have said when it was his/her turn talking. Finally, comments might be shared in such a way that students feel more comfortable, they can express their ideas using a personal story, analytical statements, examples or metaphors, etc. These factors are

essential to maintain an active participation and convey ideas in an orderly fashion (Kay, 2014).

PBL online

Problem-Based Learning has been adopted in different areas in both traditional education such as face-to-face discussions in the classroom, and online education settings like e-learning. The previous sections revealed that PBL focuses on social learning; hence, it is an active rather than passive approach which develops critical thinking skills. PBL requires a real-life problem, thus collaboration and interactions are some critical factors, so learners can inquire about the problem, in both traditional and online learning.

PBL can be adopted in online settings regarding teamwork and e-learning. Virtual worlds use electronic technologies leaving aside traditional classrooms. Virtual Learning Environment (VLE) is a system that provides with information, communication, and collaboration tools. There is a variety of platforms which use different combinations of virtual tools such as blogs, e-portfolios, virtual classrooms, discussion forums, chats, assignments etc. They can be assessed on and off-campus as well as the teacher can monitor the students' performance (Savin-Baden, 2007).

Concerning e-learning platforms, there is a system that provides a set of configurable features. Modular Objective-Oriented Dynamic Learning Environment (Moodle) is a kind of platform that higher education uses as a tool to create a virtual learning. The Moodle platform enables the creation of a course website; it facilitates the teacher controls the students' enrollment. Students use this platform to switch information, and ideas, through chats and discussion forums; also, it is useful to assess students' performance. Lastly, this e-learning platform has six integrated activities: creation, organization, delivery, communication, collaboration and assessment (Costa, Alvelos, & Teixeira, 2012).

Assessment of PBL

Assessment in PBL focuses on the nature of the tasks, the whole process, content, skills, and behavior. With PBL, assessment differs from traditional evaluation; it is aligned with students' tasks and process. This section shows two essential elements that PBL adopts in assessment. The first element, the educator assesses students' performance and group's product. The Second element, the teacher uses rubrics to determine if students participate actively in the group, also to assess the entire group presentation and learners' contributions. These elements are explained below.

Within the first element, Levin (2001) suggests evaluating both individual and group work. Individual work embraces a member's participation in the group (peer-assessment) and students' reflections (self-assessment). Self and peer assessment are quite useful in PBL; they are non-traditional methods, and formative assessments.

Self and -peer assessment in PBL

With self-assessment, students develop a critical reflection on their process because they are actively involved in their own learning as well as their evaluation. PBL requires self-assessment to make students reflect on their active participation and effort during the process, and more importantly, learners develop their ability to think critically. In PBL, peer-assessment focuses on assessing peer's contributions during the discussion of the problem in order to solve it, likewise throughout the process. It promotes to learn from critical evaluation and feedback from others (Torp & Sage, 2002).

Group assessment

Furthermore, group assessment tries to provide a substantial contribution to

determine the learning progressions. Once the group has solved the problem, students present their findings. In PBL, this kind of assessment focuses on evaluating, students' argumentation, likewise, they must explain the process they used to solve the problem, also the sources they needed to find information and difficulties in the process (Torp & Sage, 2002). These three manners of assessing can be considered as one half of each student's final grade. Finally, the application of rubrics is strongly recommended.

Rubrics in PBL

The utilization of rubrics is the second element. Brookhart (2013) defines rubric as a scoring procedure that has a coherent set of criteria that assesses students' work; it describes levels of performance and quality. Another source explains that it is recommendable that teachers introduce the rubric to students before assessing them, thus they will know the specific outcomes to be achieved. Teachers should allow students to make their own rubrics when possible; therefore, they will bear in mind clearly what outcomes they must fulfill. In general, some criteria for group assessment are fluency, content, argument and solution and experiences. Peer-assessment can focus on: if the classmate supported the group, discussed the problem, suggested solutions, and involved in the presentation. Lastly, Self-assessment is based on collaboration, contributions and opinions, discussion and a final reflection on the process (Barell, 2007).

2.4.1 Dependent variable theoretical support

To many students, speaking is one of the most difficult skills, since it involves many elements that make it difficult to produce the language orally. Hence, students are usually afraid of speaking actively; they assume that effective speakers are "naturals". Luckily, several authors agree that the practice contributes to enhancing oral communication. This section presents a review of

relevant theories and investigations of the speaking skill. It outlines language in people, skills and productive skills in the English language. Also, it emphasizes some definitions of speaking, in order to clarify what it means. The general categorization of the speaking skill, as well as the types of oral languages, will be mentioned to reveal some differences that the act of speaking involves. Lastly, it will present a discussion about how to assess speaking in class.

Language

Authors have different conceptions about what language really means, from the linguistics view. Language is related to thought and sound; the sound is a mean to express our thoughts. Thoughts order and sounds need to be articulated to produce language, thus when thoughts and sounds combine, people communicate. In addition, language is the product of the speaker's communication in a way that others can understand. Communication requires at least two people that convey their ideas (Saussure, 1983).

Language has some particularities and limitations that make it unique for human beings, who are able to communicate thoughts each other. Hence, language is exclusively for human beings. Displacement is one of the people's particularities when a person conveys his ideas or talks to another one; generally, he applies a variety of tenses such as simple past, present or future. Thus, displacement is a singularity that animals cannot do. Consequently, language is considered like a cognitive ability. On the other hand, language is finite and infinite. There are some grammar rules, vocabulary, and phonemes which make language finite, but people can generate an infinite number of new sentences and words (Chomsky, 2002).

Skills in the English language

Speaking, listening, writing and reading are four essential skills that address an effective interpersonal communication. These are called the four language skills that allow a person to understand, and produce spoken and written language. When a person learns a language, he usually listens first, then speaks, next, reads, and finally writes. The four language skills are interrelated in two manners; the direction and the method of communication (Harmer, 2007).

The direction of communication refers to how one communicates; it involves input such as listening and reading and output such as spoken or written expression. In addition, the input is called receptive and output is called productive. The method of communication focuses on the way of expressing thoughts; it embraces a spoken and written language. Brown (2000) states that the four language skills are called macro-skills, and each macro-skill has some micro-skills. An overview of the receptive and productive skills and the micro-skills of the productive ones are explained below.

Productive skills

First, listening and reading are proactive skills in contrast to active skills such as speaking and writing. Learners need to practice listening and reading in order to receive and understand the language. They all are aligned in language learning; reading and writing skills work together, as well as listening and speaking skills go hand in hand. Before a student is able to use a word in a written text or apply it in oral activities; he needs to know aspects such as spelling and pronunciation. Teachers need to combine active and passive skills in class in order that students are able to develop authentic communication (Broughton, Brumfit, Hill, & Pincas, 2003).

Speaking and writing embrace a variety of micro-skills. These are complex, and educators overlook at teaching English. In speaking, micro skills are the different lengths of chunks, phonemes and allophonic variants, stress, intonation, reduced words or phrases, and redundancy. Also, some elements like pauses, fillers, self-corrections, grammar rules, communicative functions related to the audience, sociolinguistic features such as appropriate register, likewise connection between events and communication like given information and exemplification, facial and nonverbal characteristics, and emphasizing keywords to appeal for help. These micro skills make the oral communication complex. On the other hand, students find the writing skill difficult because of the accurate micro-skills such as the use of grammar level, the cohesive device, rhetorical and convention forms, fulfillment regarding form and purpose, cohesion between main idea and the development, and the distinction between literal and implied meanings (Brown, 2000).

Definition of speaking

Rather than just learners listen to the teacher; they need to practice speaking activities in language learning. The speaking skill is one of the most critical factors in terms of interaction. The following lines define the importance of speaking.

Speaking is a complex productive skill. It embraces bottom-up processes such as appropriate vocabulary, features of pronunciation, grammar rules, cohesion and coherence, convincing meaning and knowledge of a topic. All these features generate a comprehensible output at sharing information and ideas (Saville-Troike, 2006).

Speaking focuses on the social interaction between the speaker and the listener. In a particular situation, the speaker tries to explain something and the listener tries to decode and interpret the message. Interaction does not only involve verbal

communication, and paralinguistic features of speech such as pitch, stress, and intonation. Also, it embraces nonlinguistic elements such as body language, facial expression, and gestures. In addition, there is an enormous influence of cultural elements that facilitate or impede to understand the message (Richards & Renandya, 2002).

All in all, taking into consideration the definition of Saville-Troike (2006) and Richards and Renandya (2002), speaking a foreign language requires more than mastering grammar patterns, syntax, and semantic rules. Students need to manage elements that native speakers use when they interact, such as language context, nonlinguistic elements, and paralinguistic features. Because of these difficult elements, students find challenging to speak English fluently and appropriately.

Categorization of the speaking skill

There are some different ways to convey oral communication in the context of TEFL. Brown (2000) suggested six types of classroom speaking performance that can be used by students. They are the following:

Imitative

In imitative speaking, learners practice an intonation contour; they are simply trying to repeat words. It is the ability to parrot back a word or phrase. It is usually applied to beginners when they are learning basic vocabulary. In addition, it does not matter whether learners know what they are saying. The objective is to produce utterances.

Intensive

Intensive speaking involves producing a limit amount of language. It is the student's ability to produce short stretches, also permits to practice little grammar

aspects or lexical mastery. Students can speak in pairs, asking and answering simple questions or reading aloud a passage.

Responsive

At this point, students are able to interact; they respond to a spoken prompt. Short conversations take place with short replies to the teacher or classmates. This kind of speaking does not need to use complex grammar structures or a variety of vocabulary.

Transactional (dialogue)

Transactional is slightly more complex than responsive; actually, the objective is to exchange specific information. This kind of speaking may have more switching of ideas and points of view. The ways of transactional speaking are conversations and simple discussions.

Interpersonal (dialogue)

This form of conversation is trickier because students need to maintain social relationships with the transition of facts and information. It includes multiple exchanges and participation. Students need to use slangs, humor, ellipsis, etc. some examples are role plays, interviews, discussions, etc.

Extensive (monologue)

Finally, it is well-known as a monologue, the teacher talks to students for a long time. Examples include lectures, speech, oral reports, etc. The register is more formal and deliberative**.**

Based on the theory above, it can be concluded that speaking skill has some aspects that teachers must bear in mind at teaching speaking. Oral production has a gradual increase from easy repetitions until complex social interactions. In order to clarify some aspects related to the speaking skill, monologue and dialogue have other elements that are explained below.

Types of oral language

Teachers focus the language teaching on mastering conversations, actually, they develop a variety of oral activities depending on the students' proficiency, and some activities are more complex than others. Students perform from simple conversations until complex speeches. Brown (2000) pointed out the spoken language is divided into two groups monologue and dialogue.

Monologue

This first type refers to when a single speaker conveys information to one or more listeners; usually, the speaker uses the spoken language for some length of time. People use this kind of spoken language in recitations, speeches, lecturers even news broadcast. Generally, the hearer listens to some periods of time, and the speaker is not interrupted, the speaker does not concern whether the hearer comprehends the entire speech or not. This type of spoken language is subdivided into planned and unplanned monologues.

Planned monologues have a discourse structure; speakers need to plan very well before speaking in front of the audience. This kind of monologue is usually difficult for hearers to understand, they need to have enough knowledge about the topic, for example lecturers and sermons. In addition, these speeches express redundancy because of its complexity. On the other hand, unplanned monologues differ planned, since it does not require a previous structure, for example, impromptu lecturers or long stories. It owns more redundancy and hearers

understand easily, but other elements might affect positively or negatively such as tone and hesitations (Brown, 2000).

Dialogue

Dialogue is another type of spoken language; it involves interaction between two or more speakers. In dialogues, there is a familiarity with the interlocutor in terms of context; they focus on interaction, social relationship, and facts. The speaker and the interlocutor comprehend the intention of the conversation; for example, formal and informal conversations, debates, telephone conversations, etc. Dialogue is subdivided into interpersonal and transactional.

Interpersonal dialogue involves social relationships, namely informal conversations with friends; this kind of dialogue applies colloquial language, emotionally charged language, slangs, etc. On the contrary, the transactional dialogue is based on factual information; it focuses on explaining, informing or transmitting particular sets of knowledge with the purpose of conveying or switches specific information. It requires an extended way of responsive language, for example asking the main idea of an essay and argue it (Brown, 2000).

To sum up, monologue requires less hears' participation, and dialogue needs active participation. However, monologue can become in dialogue, when the hearer interrupts in order to participate, as well as dialogue might turn monologue when there is no interaction. Teachers need to make the English lessons more interactive rather than static.

Speaking sub-skills

One objective of the speaking skill is to communicate meaning. When one speaks, one uses a variety of sub-skills to fulfill the objective, which makes the language production difficult, and nobody uses language completely accurately. It is a

challenge to manage features such as grammar, vocabulary, pronunciation, etc. Spratt, Pulverness, and Williams (2011) asserted that the speaking skill is divided into sub-skills, students apply them to be effective speakers. Speaking involves sub-skills such as fluency, the accuracy of grammar, vocabulary, and pronunciation, appropriacy, and interaction.

Fluency

A fluent speaker conveys ideas in such way the hearer keeps on listening to him without getting bored or irritated by too many hesitations or because of the speaker talks slowly. Hesitations can be produced because the speaker pays special attention to the use of grammar structures or pronunciation. On the other hand, students are not fluent when they do not have enough vocabulary in their mind (Spratt et al., 2011).

Thornbury (2005) argued that one factor of fluency is speed, but it is not the most important element. Fluency implies another aspect such as pausing. Actually proficient students need to breathe to keep speaking; however, frequent pausing is a sign of a struggling speaker. Some vagueness expressions which help the speaker are: I mean and kind of. Thus, a fluent speaker is not equal than one who speaks the language fluently.

Accuracy

Accuracy is the ability to use the correct forms of grammar, vocabulary, and pronunciation. Grammar is well-known as a system of rules that a student combines, organizes and changes parts of words in order to make meaning. Students do not need grammar to be able to speak since it is used unconsciously when a student speaks, reads or writes. Lastly, the purpose of grammar is to facilitate that the student speaks or writes properly (Spratt et al., 2011).

Vocabulary learning is useful for communication; it is one of the most important elements in language learning. Students need to manage a variety of words in order to become more independent. There are two elements of words: recognition and meaning. Students recognize the familiarity of a word such as suffixes or prefixes. Meaning involves the use of words in different settings. Finally, there are some words and phrases that a student applies when speaking such as well, yeah, you know etc. All of them are frequent in spoken English (Thornbury, 2005).

The accuracy of pronunciation means the production of comprehensible utterances. It involves features like phonemes, word stress, sentence stress and intonation. Wrong pronunciation can cause misunderstanding or students may get frustrated. The speaker can change the pitch of his voice making it higher or lower in order to express a positive or negative message. Lastly, learners feel confident when they do not make mistakes while producing the language (Harmer, 2007).

Appropriacy

Appropriacy is the process of selecting a word which is suitable for the context. The speaker needs to select the right register to treat the listener with the appropriate degree of formality or informality. It is quite important to avoid making the hearer gets angry or uncomfortable. Also, there are some factors such as cultural background and what is right for the context. Finally, language appropriacy is more useful than accuracy; an effective communication is the result of an active interaction (Spratt et al., 2011).

Interaction

An effective communication requires real-life speaking, non-native speakers need to be prepared to speak in different situations. Students have to deal with different situations such as telephone calls, discussions, giving presentations, or buying

some milk in a grocery store. They require the use of functions, different amount of interaction, levels of formality, structures, and vocabulary. Interaction is quite important to share ideas, opinions, believes etc. The teacher should develop learners' oral interaction inside and outside the class in order to provide them with maximum exposure to the target language (Spratt et al., 2011).

Assessment in speaking

The assessment takes an important role during the teaching-learning process of a foreign language; it is an indispensable component of the curriculum, actually, the teacher assesses students all the time. There are two kinds of assessment formal and informal. The first uses traditional methods, and the second is considered as an alternative assessment. This section focuses on the alternative assessment since it involves self and peer-assessment. Finally, this will explore the criteria to assess speaking.

Formal and informal assessment

Before moving on, assessment embraces some important factors that the teacher needs to bear in mind in educational settings such as the responsibility of observing and comparing students' knowledge and abilities, and external factors can cause anxiety in students affecting final scores negatively. These factors contribute to the assessment process. Brown (2000) implied two overarching types of assessment: informal and formal. Informal assessment involves unplanned evaluative coaching as well as day-to-day observations. It offers important insight into students' misconceptions.

In addition, Brookhart (2013) asserted that informal assessments are called formative evaluations because they assess students in the process in order to improve their skills. An example is teachers' spontaneous daily observations of students' performance. On the other hand, formal assessment is a systematic

preplanned evaluation of skills and knowledge; it requires a short time limit. It is known as a summative assessment which seeks to analyze the final product rather than the process. It can take place at the end of a lesson, unit or course. Typically, formal assessment is associated with goals and objectives.

Traditional vs. alternative assessment

While some teachers believe that traditional assessment is more effective in terms of instruction, there is who believe that alternative assessment is much more authentic. Brown (2000) considered that traditional assessment applies tools such as multiple choice tests, matching exercises; fill in the gaps or true or false statements. These kinds of tests do not show what learners really know, because students tend to guess the right answer. Furthermore, these ways of assessing measure passive knowledge instead of enhancing real-life language use. Likewise, Nasab (2015) studied alternative against the traditional assessment, he found that alternative tools encourage students to create answers from their comprehension. Also, alternative assessment enhances intrinsic motivation. In concordance with the previous research, Brown (2000) mentioned that students perform creative answers, also alternative assessment becomes formative and provides interactive feedback, and gains validity and reliability. In short, with the use of alternative assessment, students have the chance to demonstrate what they have learned. In order to develop a non-test assessment, some innovations are necessary to include such as self and peer-assessment.

Self and peer-assessment

Nowadays, learners need to participate not only in the class itself; they require taking part in the assessment. Self and peer-assessment boost learners' involvement. Goh and Burns (2012) pointed out that self-assessment is an important element that contributes to formative assessment. Actually, students

monitor their own progress, they are more critical since they examine their strengths and their weaknesses. This is an important tool to increase responsibility; they can easily realize what they know and what they need to improve. Likewise, Brown (2000) claimed that peer-assessment does not focus on the teachers as the unique person that is able to assess. Furthermore, there are some advantages such as direct students' involvement and autonomy. Peer-assessment uses some tools like self and peer checklist and rubrics. Finally, these both ways of assessing requires that the teacher sets clear objectives.

Criteria for assessing speaking from an analytical perspective

Once students have trained in the speaking skill, they need to be assessed. Thornbury (2003) asserted that teachers can use two different ways such as holistic scoring which provides a score from an overall impression; it is useful for informal testing. On the other hand, analytic scoring separates marks in different aspects; it defines what aspects are strong, and which ones need improvement. Taking into account that analytical scoring provides feedback; assessment in speaking can apply four criteria: grammar and vocabulary, discourse management, pronunciation and interactive communication.

Wire, Ivanna, and Galaczi (2013) wrote that the first aspect refers to minimize the number of grammar rules as well as using appropriate vocabulary. Discourse management is the ability to express ideas in a coherent way in order to support the main idea. Another aspect is pronunciation; it refers to produce comprehensible utterances, students need to pay special attention to stress and intonation to convey their ideas. Finally, within interactive communication students are able to interrelate with another classmate, they need to maintain the discussion and ask for clarifications. All of these aspects do not focus on grammar accuracy only; these aspects are based on the ability to maintain an active communication.

2.5 Hypothesis

Null hypothesis

Problem-Based Learning approach does not develop the speaking skill in English in B1 level students at Universidad Técnica de Cotopaxi.

Alternative hypothesis

Problem-Based Learning develops the speaking skill in English in B1 level students at Universidad Técnica de Cotopaxi.

2.6 Signaling hypothesis variables

Independent variable: The Problem-Based Learning approach
Dependent variable: The speaking skill in English

CHAPTER III
METHODOLOGY

This section explains the research methodology; it includes some approaches that guide the investigation and the level of research. Also, this chapter shows the population and sample that the researcher took to apply the instruments based on the operationalization of variables. Finally, it reveals the method that the researcher used to collect data and the way to analyze it.

3.1 Research approach

This research had both a quantitative and a qualitative approach. The mixed approach includes both quantitative and qualitative data; it is useful for conducting research that involves collecting and analyzing data in order to understand the research problem (Greene, 2007).

This research took this approach to gather, classify and value information in order to obtain a theoretical basis on Problem-Based Learning, and the speaking skill. Moreover, with the utilization of numerical analysis was possible to confirm the hypothesis. Finally, the researcher could test the hypothesis that was established previously; based on the results of the survey in order to reach conclusions and recommendations.

3.2 Basis research modality

3.2.1 Bibliographic documentary research

It consists in the selection and compilation of information, it is essential to read in order to gather reliable sources from texts, source materials, online libraries, newspapers, and information centers (Scott, 2006).

This research used a variety of theories, conceptions, and criteria of several authors. Furthermore, it was based on numerous sources such as books, articles, journals and other sources. They revealed a diversity of concepts and processes which contributed to clarifying the research variables theoretically.

3.3 Level of research

3.3.1 Exploratory

The exploratory research intends to explore research questions, and contribute to the research in order to determine the nature of the problem, but it does not offer final or conclusive solutions. However, it forms the basis for more conclusive research in the future (MacNabb, 2010).

This level of research helped to describe the characteristics of the problem since this issue is not very well defined in TEFL. Also, there is not much information about PBL in the context of language learning, and this research provided with initial insights for future investigations.

3.3.2 Descriptive

This level of research uses both quantitative and qualitative research methodologies. It is related to research questions, design and data analysis since it seeks to determine causes and effects. In addition, it aims to explain the current issue through processing data collection in order to describe the situation (Kothari, 2004).

Descriptive research contributed to the investigation since it demonstrated the veracity of the hypothesis. Also, the researcher applied a survey to students and teachers and it was necessary to know the current situation after the data analysis.

3.3.3 Quasi-experimental research

Quasi-experimental research does not focus on two experimental groups; it is administered to only one experimental group. Also, participants are not randomly assigned. Quasi-experiments are linked to correlational researches and true experiments (Jackson, 2012).

Once the researcher obtained data from the survey, he analyzed it and verified that teachers and students are unfamiliar with PBL and its influence in developing the speaking skill. Thus, the researcher developed a virtual classroom in the Moodle platform to verify the alternative hypothesis using a pre and post-test to evaluate the impact of PBL on the speaking skill.

3.3.4 Correlational research

Correlational research is a type of experimental research. It analyses the influence of two variables. The researcher measures two variables in order to reveal the relationship or independence (McBurney & Theresa, 2010).

This research showed the relationship between the independent variable, Problem-Based Learning and the dependent variable, the speaking skill. Consequently, the application of the independent variable had an effect on the dependent variable.

3.4 Population and sample
3.4.1 Population

Population represents the entirety of units; it includes all the elements from a group. On the other hand, a sample is a finite number of participants; it is chosen through a systematic process at random (Kothari, 2004). The population embraced

B1 level students and foreign language English teachers. Universidad Técnica de Cotopaxi has 3 campus, in La Maná, Salache, and San Felipe. This research focused on the campus Salache, thus the researcher took as a sample, 5 teachers, and 53 B1 level students.

Table 1
Population

POPULATION	QUANTITY
Teachers	5
Students	53
Total	58

Source: language center – UTC
Elaborated by: Guagchinga, N. (2018)

3.5 Operationalization of variables

3.5.1 Operationalization of the dependent variable

Table 2

Operationalization of the dependent variable

Conceptualization Problem-Based Learning	Categories	Indicators	Items	Instruments and techniques
Problem-Based Learning is a **student-centered** approach which embraces **stages** that are connected with oral **activities** with the purpose of **assessing** learners' performance.	Student-centered approach	❖ Problem-solving skills ❖ Inquiry method ❖ Self-directed ❖ Opened-ended problem solving	1.- Does the teacher develop problem-solving skills (real-life problems) in order to find a solution such as violence against women, global warming, the death penalty, youth violence etc.? a) Always (…..)b) Sometimes (…..) c) Never (…..) 2. - Does the teacher stimulate you to search for information concerning real-life problems by yourself?	Survey Questionnaire
	Stages	❖ Orienting ❖ Organizing ❖ Guiding ❖ Developing ❖ Reflecting	3. - When you work in groups, does the teacher encourage the group to share their ideas in English?	Survey Questionnaire

	Activities	❖ Pyramid discussion ❖ Talk circles	4. - When you perform problem-solving discussions in groups, do you respect your turn-taking? 5.- When you discuss real-life problems, does the teacher respect different solutions? 6. - When you discuss real-life problems, does the teacher apply the pyramid discussion (students form progressively larger groups) and the talking circle activity (Students participates by turns and respect classmates' opinions)?	Survey Questionnaire
	Assessment	❖ Self-assessment ❖ Peer-assessment ❖ Group assessment	7. - When you finish a problem-solving activity in groups, does the teacher allow you assess by yourself (self-assessment) and your classmates (peer-assessment)? 8. - When you finish a problem-solving activity in groups, how often does the teacher give you feedback highlighting your weakness and strengths?	Survey Questionnaire

Source: Bibliographic research
Created by: Guagchinga, N. (2018)

3.5.2 Operationalization of the independent variable

Table 3
Operationalization of the independent variable

CONCEPTUALIZATION THE SPEAKING SKILL	CATEGORIES	INDICATORS	ITEMS	INSTRUMENTS AND TECHNIQUES
Speaking is a productive skill which focuses on conveying comprehensible output to the listener taking into consideration sub-skills and applies different kinds of assessment to value performance.	Productive skills	❖ Writing ❖ Speaking	9. - When you perform problem-solving activities in groups, does the teacher promote oral interaction in English?	Survey Questionnaire
	Sub-skills	❖ Fluency ❖ Accuracy ❖ Appropriacy ❖ Interaction	10. - When you speak English, do you find it difficult to speak easily and quickly without having to stop and pause a lot (Speaking the language fluently)?	Survey Questionnaire

				Survey Questionnaire
	Assessment	❖ Traditional ❖ Alternative	11.-. When you perform an oral presentation, does the teacher stress on grammar mistakes? 12. - Does the teacher apply a rubric for assessing speaking activities? 13. - How often does the teacher apply the Problem-Based Learning approach to promote oral communication in the class?	

Source: Bibliographic research
Created by: Guagchinga, N. (2018)

3.6 Data collection plan

Table 4
Basic questions

Basic questions	Rationale
What for?	To achieve the main objectives of this research
Which will be the unit of analysis?	Population
What aspects will be about?	Problem-Based Learning and the speaking skill
Who will develop?	Researcher
When?	April-August 2018
Where?	Language Center at Universidad Técnica de Cotopaxi
How many times?	Once
Which data collection technique will be used?	Survey Experiment
Which instrument will be used?	Questionnaire The pre and post-test
In what situation?	English lessons

Source: Data collection
Created by: Guagchinga, N. (2018)

3.6.1 Process and analysis plan

Firstly, this research had the approval of the authorities of Universidad Técnica de Cotopaxi. Secondly, the researcher determined the research problem through a diagnosis. Third, some objectives were established; this research developed a theoretical basis. Then, it was determined the use of data collection instruments with items related to the objectives, and a pre and post-test. Consequently, it was applied a survey to students and teachers in order to present data in tables and interpret it. Finally, the researcher applied a pre and a post-test to control and experimental group to measure their level of communicative competence with an intervention of five weeks with B1 level students.

CHAPTER IV

ANALYSIS AND INTERPRETATION

4.1 Analysis of results

This research applied the Crombach's alpha in order to validate and measure reliability and internal consistency of the instrument. The results showed that the items in the survey are highly correlated. It has an alpha of 1,028 which is excellent since whether there is a score low of 0.8 is questionable. Also, this research used the Chi-square in order to reject or accept the null hypothesis.

$$\alpha = \left(\frac{K}{K-1} \right) \left(1 - \frac{\sum V_i}{V_T} \right)$$

SURVEY FOR STUDENTS

1.- Does the teacher develop problem-solving skills (real-life problems) in order to find a solution such as violence against women, global warming, the death penalty, youth violence etc.?

Table 5
Problem-solving skills in order to find a solution

Options	Frequency	Percentages
Always	6	11,32%
Sometimes	9	16,98%
Never	38	71,70%
TOTAL	53	100%

Source: Survey for students
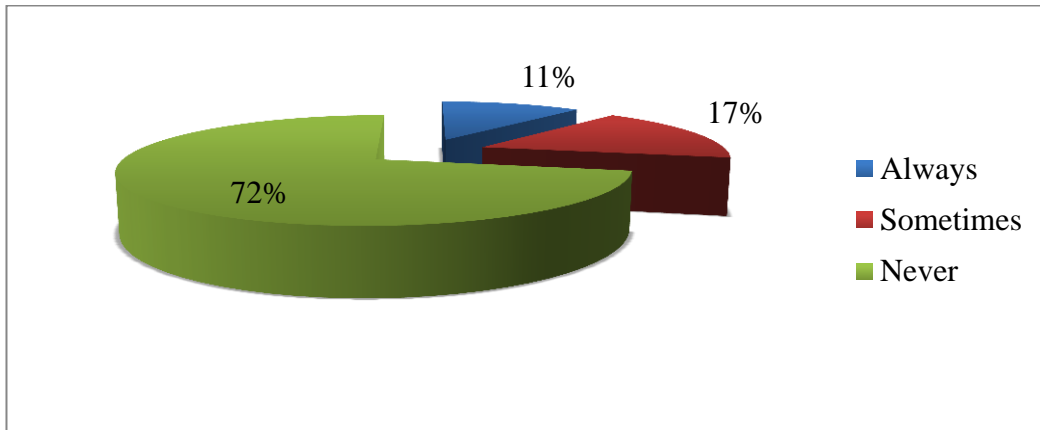**Created by:** Guagchinga, N. (2018)

Figure 7 Problem-solving skills in order to find a solution
Source: Survey for students
Created by**:** Guagchinga, N. (2018)

Analysis and interpretation

Once the data were analyzed, out of a total of 53 students, 6 learners of those polled who represent 11,32% considered that the teacher sometimes develops problem-solving skills in order to find a solution. 9 learners who represent 16, 98% state that it is sometimes developed, and 38 of them who represent 71, 70% state never.

In general, there is a lack of problem-solving development because of the poor application of the PBL approach. Also, students feel that the teachers do not develop activities in order to look for a solution.

2. - Does the teacher stimulate you to search for information concerning real-life problems by yourself?

Table 6
Self-directed learning

Options	Frequency	Percentages
Always	3	5,66%
Sometimes	21	39,62%
Never	29	54,72%
TOTAL	53	100%

Source: Survey for students
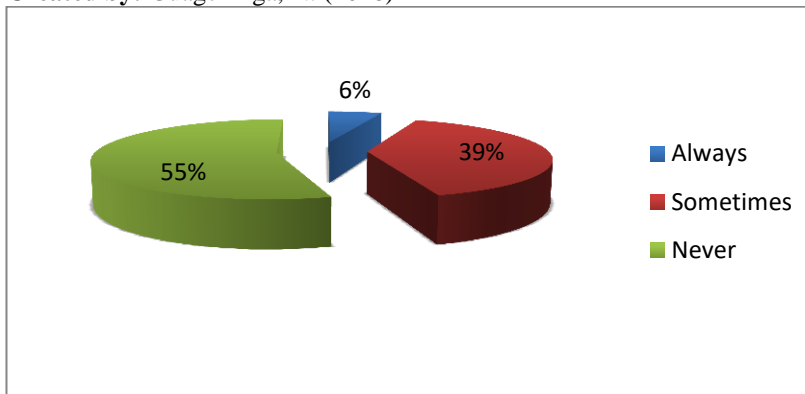**Created by:** Guagchinga, N. (2018)

Figure 8 Self-directed learning
Source: Survey for students
Created by**:** Guagchinga, N. (2018)

Analysis and interpretation

Based upon the results displayed above, 3 students that mean 5, 66% of those polled consider that the teacher stimulates them to search for information concerning real-life problems by themselves. Concerning this inquiry, 21 students who represent 39, 62% state sometimes, and 29 learners who represent 54, 72% consider that the teacher never stimulates them to search for information by themselves.

As the results show, there is a lack of stimulus to encourage students to search for information by themselves. Therefore, students consider that they are not self-directed learners.

3. - When you work in groups, does the teacher encourage the groups to share their ideas in English?

Table 7
Collaborative learning

Options	Frequency	Percentages
Always	17	32,08%
Sometimes	16	30,19%
Never	20	37,74%
TOTAL	53	100%

Source: Survey for students
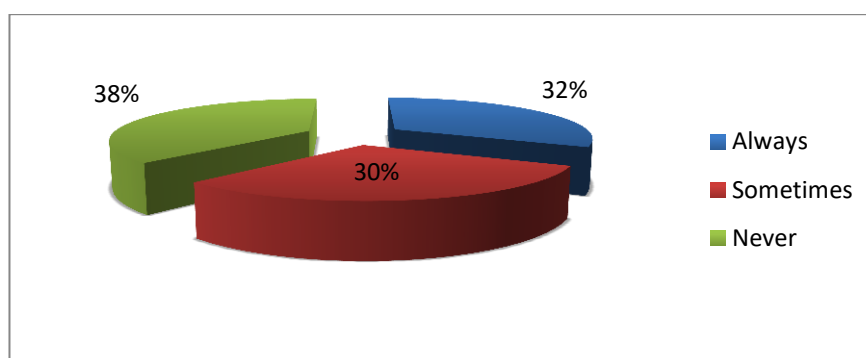**Created by:** Guagchinga, N. (2018)

Figure 9 Collaborative learning
Source: Survey for students
Created by**:** Guagchinga, N. (2018)

Analysis and interpretation

According to the data seen above, 17 students who represent 32, 08% of those polled state that the teacher always encourages the groups to share their ideas in English when they work in groups. 16 students who represent 30, 19% state sometimes, and 29 learners who represent 37, 74% consider that the teacher never encourage them to share their ideas in English.

These results demonstrate that sadly students do not convey their ideas in English entirely when they work in groups. Thus, most of the time learners speak in Spanish when they develop collaborative activities.

4. - When you perform problem-solving discussions in groups, do you respect your turn-taking?

Table 8
Turn-taking

Options	Frequency	Percentages
Always	1	1,89%
Sometimes	21	39,62%
Never	31	58,49%
TOTAL	53	100%

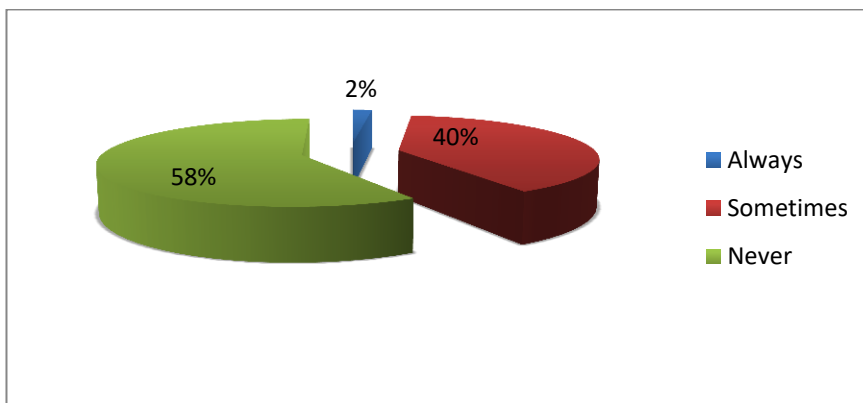Source: Survey for students
Created by:: Guagchinga, N. (2018)

Figure 10 Turn-taking
Source: Survey for students
Created by: Guagchinga, N. (2018)

Analysis and interpretation

According to the results showed above, only 1 student who represent 1, 89% of those polled considers that when they perform problem-solving discussions in groups, they always respect their turn-taking, 21 students who represent 39,62% state it is sometimes respected, and 31 learners who represent 58,49% agree that they never respect their turn-taking.

These results show that even though there are a good number of students who selected the option sometimes, it is obvious that students discuss a problem spontaneously. It means that they do not speak in an orderly fashion.

5. - When you discuss real-life problems, does the teacher respect different solutions you may find for the problems?

Table 9
Open-ended problem solving

Options	Frequency	Percentages
Always	11	20,75%
Sometimes	11	20,75%
Never	31	58,49%
TOTAL	53	100%

Source: Survey for students
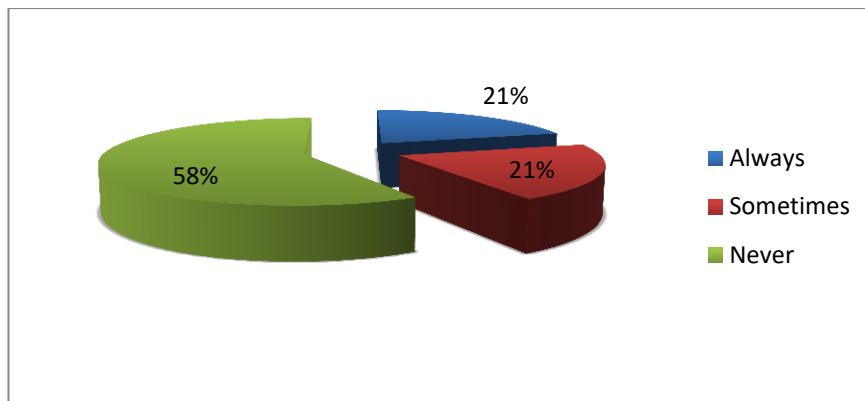Created by**:** Guagchinga, N. (2018)

Figure 11 Open-ended problem solving
Source: Survey for students
Created by**:** Guagchinga, N. (2018)

Analysis and interpretation

The results obtained for this question revealed that 11 students who represent 20,75% of those polled state that when they discuss real-life problems, the teacher always respect different solutions, 11 students who represent 20,75% state sometimes, and 31 learners who represent 58,49% decided that the teacher never respects different solutions.

These results reveal that when the teacher develops real-life problem discussions the different solutions and ideas are not always respected. Consequently, there is a lack of open-ended problem solving practice.

6. - When you discuss real-life problems, does the teacher apply the pyramid discussion (students form progressively larger groups) and the talking circle activity (Students participates by turns and respect classmates' opinions)?

Table 10
Activities for PBL

Options	Frequency	Percentages
Always	3	5,66%
Sometimes	21	39,62%
Never	29	54,72%
TOTAL	53	100%

Source: Survey for students
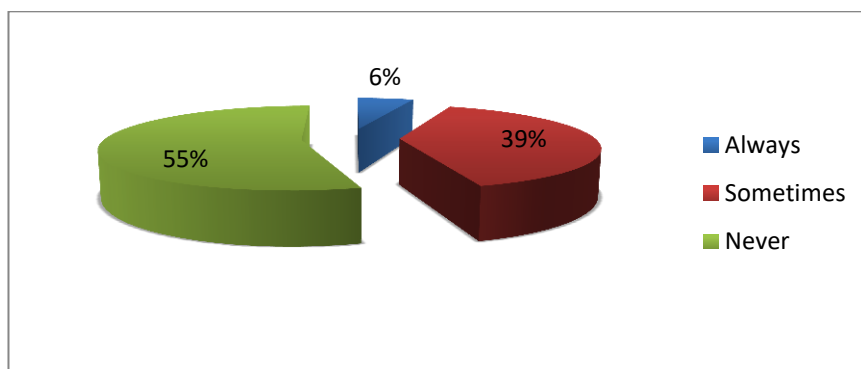Created by: Guagchinga, N. (2018)

Figure 12 Activities for PBL
Source: Survey for students
Created by: Guagchinga, N. (2018)

Analysis and interpretation

According to the data seen above, 3 students who represent 5, 66% of those polled state that when they discuss real-life problems, the teacher always applies the pyramid discussion and the talking circle activity, 21 students who represent 39, 62% consider that these are sometimes applied, and 29 learners who represent 54, 72% agree that never apply them.

These results demonstrate that somehow or other some students are familiarized with the activities for PBL. However, most of learners do not practice English with these activities.

7. - When you finish a problem-solving activity in groups, does the teacher allow you assess (self-assessment) and your classmates (peer-assessment)?

Table 11
PBL assessment

Options	Frequency	Percentages
Always	0	0,00%
Sometimes	11	20,75%
Never	42	79,25%
TOTAL	53	100%

Source: Survey for students
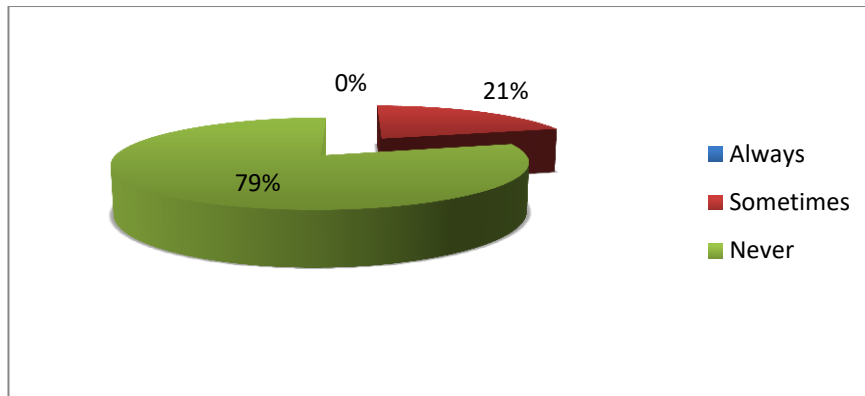Created by**:** Guagchinga, N. (2018)

Figure 13 PBL assessment
Source: Survey for students
Created by**:** Guagchinga, N. (2018)

Analysis and interpretation

Based on the results showed above, 11 students who represent 20, 75% of those polled state that the teacher sometimes allows them assess (self-assessment) and their classmates (peer-assessment), and 42 students who represent 79, 25% state never.

These results demonstrate that there is a poor application of self and peer-assessment. Consequently, the traditional assessment is used in the English class mainly, which is dreadful for PBL.

8. - When you finish a problem-solving activity, how often does the teacher give you feedback highlighting your weakness and strengths?

Table 12
Feedback

Options	Frequency	Percentages
Always	2	3,77%
Sometimes	21	39,62%
Never	30	56,60%
TOTAL	53	100%

Source: Survey for students
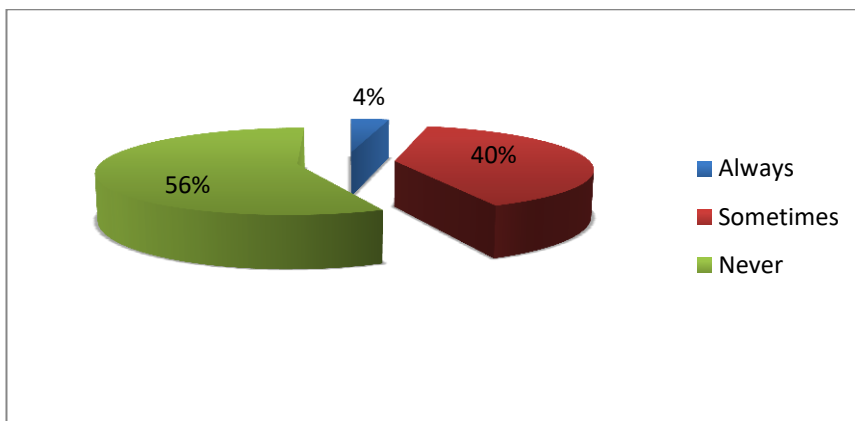Created by**:** Guagchinga, N. (2018)

Figure 14 Feedback
Source: Survey for students
Created by**:** Guagchinga, N. (2018)

Analysis and interpretation

According to the outcomes showed above, 4 students who represent 3,77% of those polled consider that teacher always gives them feedback highlighting their weakness and strengths, 21 students who represent 39,62% state that it is sometimes given, and 30 learners who represent 56,60% agree that the teacher never does it.

These results demonstrate that most of the time the teacher does not explain what the students do wrong or right. Therefore, there is a lack of feedback when learners develop an oral activity.

9. - When you perform problem-solving activities in groups, does the teacher promote oral interaction in English within the groups?

Table 13
Oral interaction

Options	Frequency	Percentages
Always	5	9,43%
Sometimes	23	43,40%
Never	25	47,17%
TOTAL	53	100%

Source: Survey for students
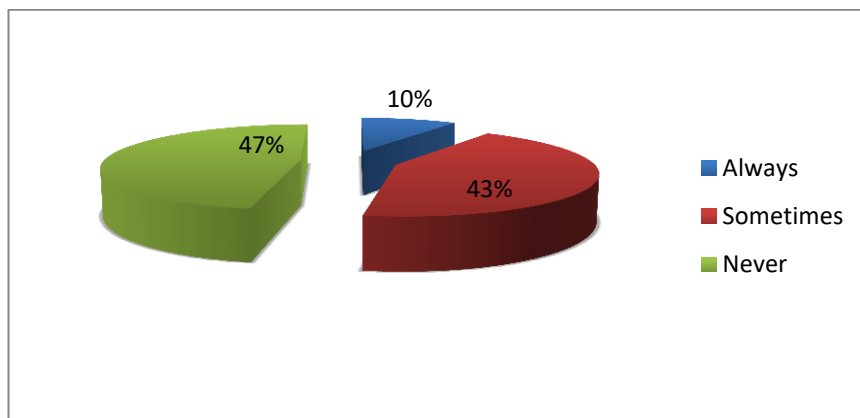Created by**:** Guagchinga, N. (2018)

Figure 15 Oral interaction
Source: Survey for students
Created by**:** Guagchinga, N. (2018)

Analysis and interpretation

Based on the results showed above, 5 students who represent 9, 43% of those polled state that the teacher always promotes oral interaction in English within the groups, 23 learners who represent 43, and 40% consider that it is sometimes performed, and 25 of them who represent 47, 17% state never.

Even though some students consider that the teacher promotes oral interaction, others have an opposite position. This reveals that there are more written, reading, or listening activities rather than speaking development.

10. - When you speak English do you find it difficult to speak easily and quickly without having to stop and pause a lot (Speaking the language fluently)?

Table 14
Fluency

Options	Frequency	Percentages
Always	32	60,38%
Sometimes	21	39,62%
Never	0	0,00%
TOTAL	53	100%

Source: Survey for students
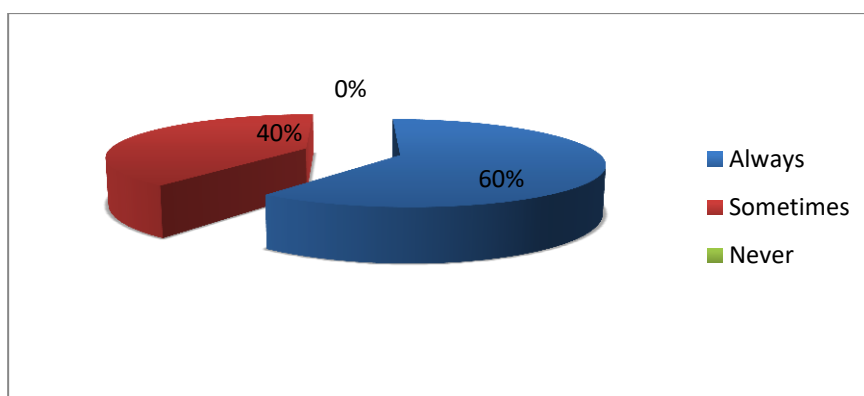Created by**:** Guagchinga, N. (2018)

Figure 16 Fluency
Source: Survey for students
Created by**:** Guagchinga, N. (2018)

Analysis and interpretation

According to the data seen above, 32 students who represent 60, 38% of those polled state that they always find difficult to speak the language fluently, and 21 students who represent 39, 62% consider that it is sometimes difficult.

These results demonstrate that most students have complications to speak English fluently. Hence, because of the lack of oral activities students cannot develop fluency in English.

11.-. When you perform an oral presentation, does the teacher stress on grammar mistakes?

Table 15
Grammar mistakes

Options	Frequency	Percentages
Always	42	79,25%
Sometimes	10	18,87%
Never	1	1,89%
TOTAL	53	100%

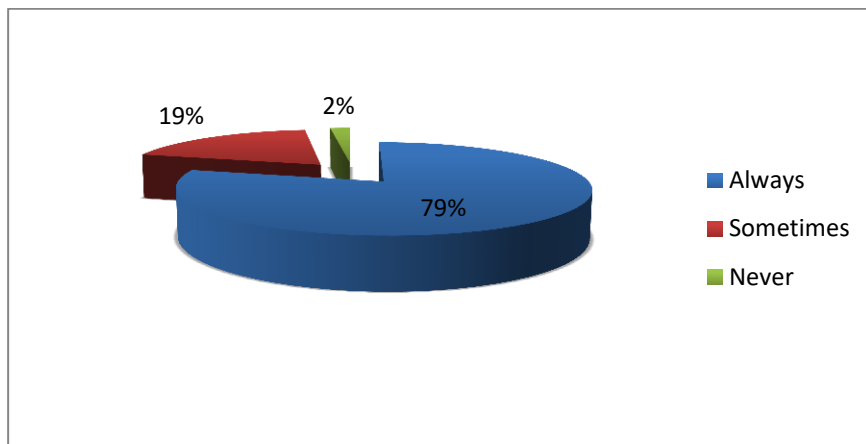Source: Survey for students
Created by**:** Guagchinga, N. (2018)

Figure 17 Grammar mistakes
Source: Survey for students
Created by**:** Guagchinga, N. (2018)

Analysis and interpretation

Based on the results showed above, 42 students who represent 79, 25% of those polled state that the teacher always stresses on grammar mistakes when they have an oral presentation, 10 learners who represent 18, 87% consider that sometimes, and only 1 of them who represent 1, 89% states never.

These results reveal that there is a great influence on grammar when learners speak English. Thus, students pay special attention to grammar structures which impede to speak fluently.

12. - Does the teacher apply a rubric for assessing speaking activities?

Table 16
Rubric for assessing speaking

Options	Frequency	Percentages
Always	29	54,72%
Sometimes	20	37,74%
Never	4	7,55%
TOTAL	53	100%

Source: Survey for students
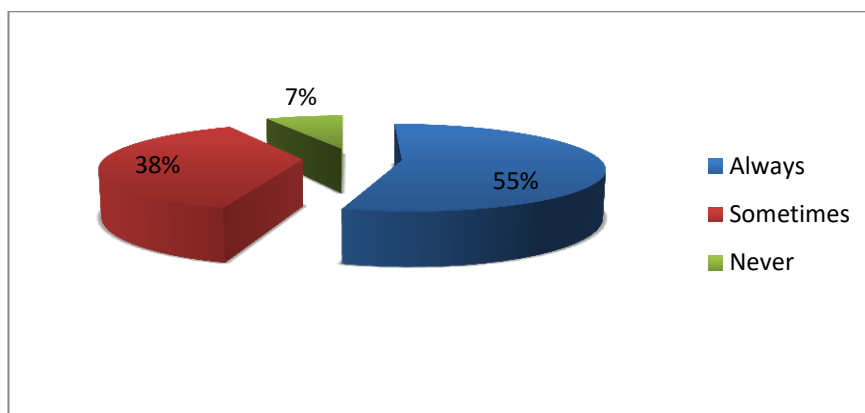Created by**:** Guagchinga, N. (2018)

Figure 18 Rubric for assessing speaking
Source: Survey for students
Created by**:** Guagchinga, N. (2018)

Analysis and interpretation

The results obtained for this question show that 29 students who represent 54,72% of those polled state that the teacher always uses a rubric for assessing speaking, 20 students who represent 37,74% state sometimes and 4 learners who represent 7,55% agree that the teacher never uses a rubric.

These results reveal that students are familiarized with the use of rubrics, especially in speaking activities. Rubrics are vitally important to PBL because students need to know the parameters of evaluation before developing an oral activity.

13. - How often does the teacher apply the Problem-Based Learning approach to promote oral communication in class?

Table 17
Problem-Based Learning and speaking development

Options	Frequency	Percentages
Always	3	5,66%
Sometimes	6	11,32%
Never	44	83,02%
TOTAL	53	100%

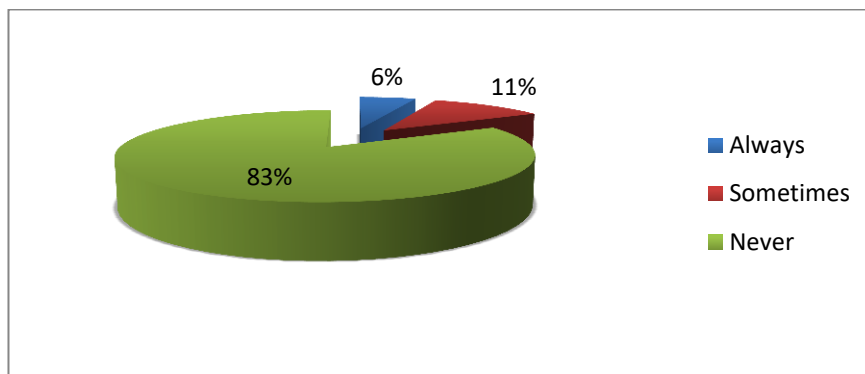Source: Survey for students
Created by**:** Guagchinga, N. (2018)

Figure 19 Problem-Based Learning and speaking development
Source: Survey for students
Created by**:** Guagchinga, N. (2018)

Analysis and interpretation

According to the data seen above, 3 students who represent 5,66% of those polled state that the teacher applies the Problem-Based Learning approach to promote oral communication, 6 students who represent 11,32% consider that it is sometimes applied, and 44 students who represent 83,02% state never.

These results demonstrate that after visualizing what PBL means with the previous questions, most the students agree that PBL is not used in order to promote speaking development. PBL is an approach that enables students to develop problem-solving skills and oral interaction.

4.3 Survey for teachers

1.- Do you develop problem-solving skills (real-life problems) in order to find a solution such as violence against women, global warming, the death penalty, youth violence etc.?

Table 18
Problem-solving skills in order to find a solution

Options	Frequency	Percentages
Always	2	40,00%
Sometimes	2	40,00%
Never	1	20,00%
TOTAL	5	100%

Source: Survey for teachers
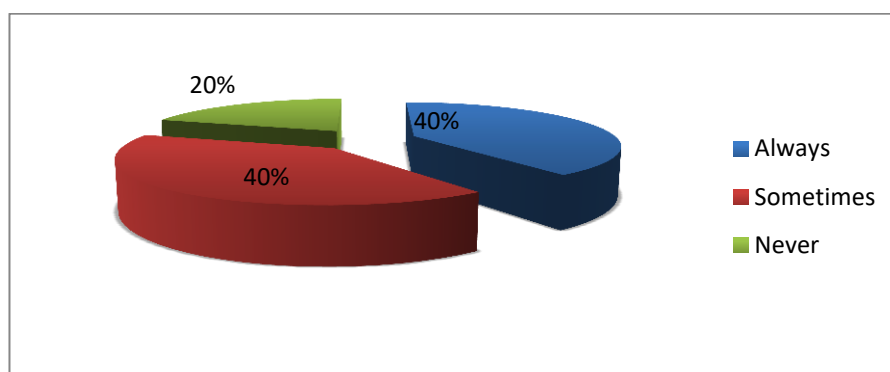Created by**:** Guagchinga, N. (2018)

Figure 20 Problem-solving skills in order to find a solution
Source: Survey for teachers
Created by**:** Guagchinga, N. (2018)

Analysis and interpretation

Once the data were analyzed, out of a total of 5 teachers, 2 of those polled who represent 40,00% consider that they sometimes develop problem-solving skills in order to find a solution, 2 teachers who represent 40,00% state that it is sometimes developed, and 1 of them who represent 20,00% states never.

These results demonstrate that there is a partial application of problem-solving skills. However, according to the polled students, most of them do not agree with this reality. Thus, the teachers need to analyze the students' answers.

2. – Do you stimulate the students to search for information concerning real-life problems by themselves?

Table 19
 Self-directed learning

Options	Frequency	Percentages
Always	4	80,00%
Sometimes	1	20,00%
Never	0	0,00%
TOTAL	5	100%

Source: Survey for teachers
Created by**:** Guagchinga, N. (2018)
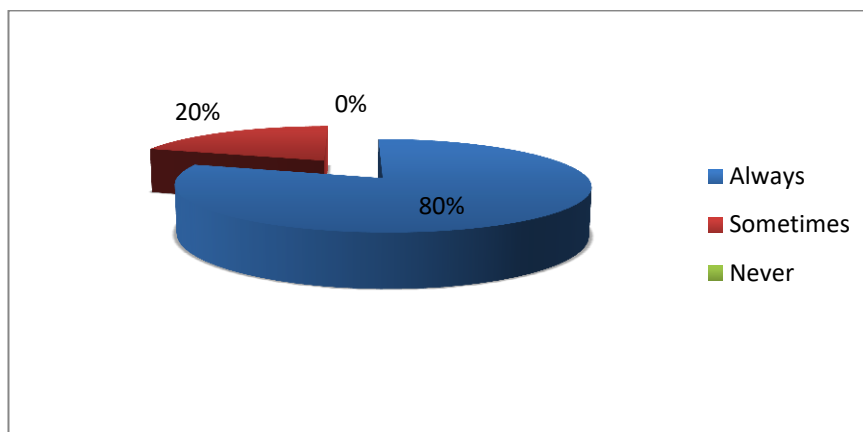
Figure 21 Self-directed learning
Source: Survey for teachers
Created by**:** Guagchinga, N. (2018)

Analysis and interpretation

Based on the results showed above, 4 teachers who represent 80,00% of those polled consider that they always stimulate students to search for information concerning real-life problems by themselves, and 1 teacher who represents 20,00% states sometimes.

These results demonstrate that the teachers stimulate students to be self-directed. Nevertheless, most students consider that the teacher does not develop the self-directed learning. Thus, teachers need to take into consideration this reality.

3. - When the students work in groups, do you encourage them to share their ideas in English?

Table 20
Collaborative learning

Options	Frequency	Percentages
Always	4	80,00%
Sometimes	1	20,00%
Never	0	0,00%
TOTAL	5	100%

Source: Survey for teachers
Created by**:** Guagchinga, N. (2018)
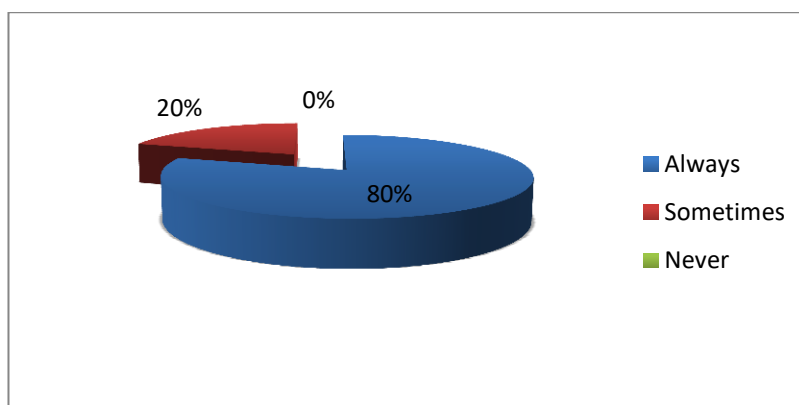

Figure 22 Collaborative learning
Source: Survey for teachers
Created by**:** Guagchinga, N. (2018)

Analysis and interpretation

According to the data seen above, 4 teachers who represent 80, 00% of those polled state that they always encourage the groups to share their ideas in English when they work in groups. Only 1 teacher who represents 20, 00% states sometimes.

These results show that teachers encourage students to speak English when they work in groups. Conversely, students consider that they do not convey their ideas in English entirely, which induce me to think that the teacher has not been paying attention when the students are talking. Probably, they speak in Spanish when developing collaborative activities.

4. - When the students perform problem-solving discussions in groups, do they respect their turn-taking?

Table 21
Turn-taking

Options	Frequency	Percentages
Always	0	0,00%
Sometimes	2	40,00%
Never	3	60,00%
TOTAL	5	100%

Source: Survey for teachers
Created by**:** Guagchinga, N. (2018)
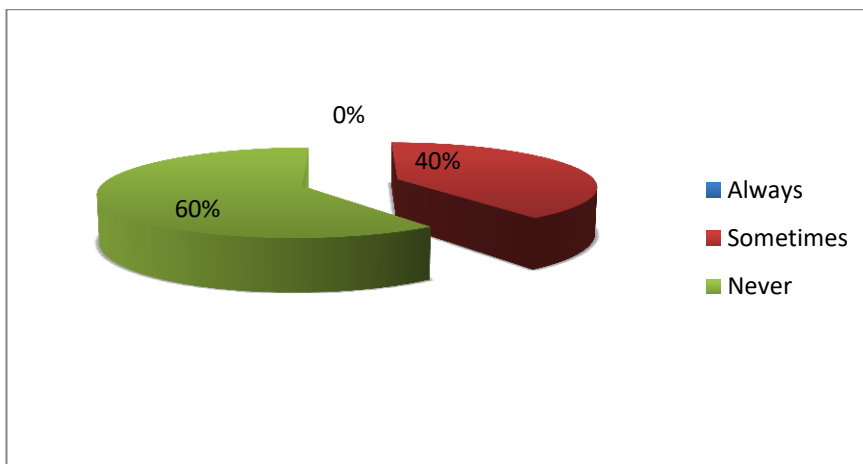
Figure 23 Turn-taking
Source: Survey for teachers
Created by**:** Guagchinga, N. (2018)

Analysis and interpretation

According to the results showed above, only 2 teachers who represent 40,00% of those polled consider that when students perform problem-solving discussions in groups, they sometimes respect their turn-taking and 3 teachers who represent 60,00% agree that they never respect their turn-taking.

These results show that most of the teachers agree that students do not speak in an orderly fashion when switching ideas in groups. This is vitally important in order to keep a fluent discussion among student.

5. - When the students discuss real-life problems, do you respect different solutions they may find for the problems?

Table 22
Open-ended problem solving

Options	Frequency	Percentages
Always	3	60,00%
Sometimes	2	40,00%
Never	0	0,00%
TOTAL	5	100%

Source: Survey for teachers
Created by**:** Guagchinga, N. (2018)
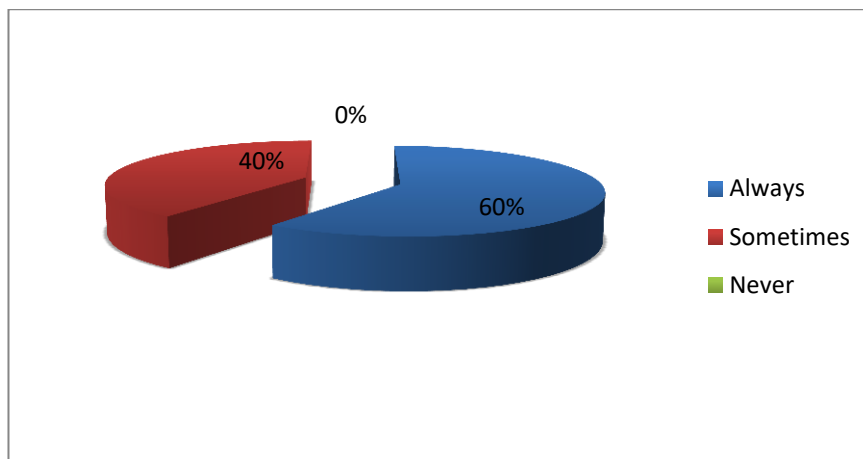
Figure 24 Open-ended problem solving
Source: Survey for teachers
Created by**:** Guagchinga, N. (2018)

Analysis and interpretation

The results obtained for this question revealed that 3 teachers who represent 60, 00% of those polled state that when students discuss real-life problems, they always respect different solutions, and 2 teachers who represent 40, 00%   state sometimes.

These results revealed that most teachers respect different solutions proposed by students. On the other hand, students have a contradictory position of this question. Therefore, there is a poor practice of open-ended problem activities.

6. - When the students discuss real-life problems, do you apply the pyramid discussion (students form progressively larger groups) and the talking circle activity (Students participates by turns and respect classmates' opinions)?

Table 23
Activities for PBL

Options	Frequency	Percentages
Always	1	20,00%
Sometimes	3	60,00%
Never	1	20,00%
TOTAL	5	100%

Source: Survey for teachers
Created by**:** Guagchinga, N. (2018)
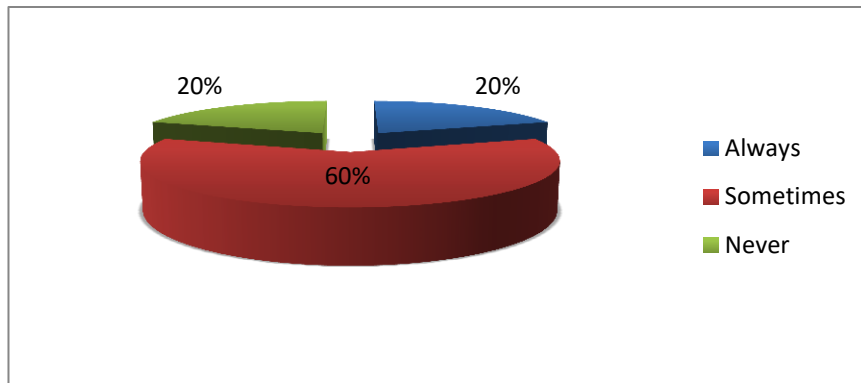
Figure 25 Activities for PBL
Source: Survey for teachers
Created by**:** Guagchinga, N. (2018)

Analysis and interpretation

According to the data seen above, 1 teacher who represent 20,00% of those polled states that when students discuss real-life problems, he always applies the pyramid discussion and the talking circle activity, 3 teachers who represent 60,00% consider that these are sometimes applied, and 1 educator who represent 20,00% agrees that never.

These results demonstrate that most teachers are familiarized with these activities for PBL. However, most learners do not know them, so that teachers do not always work in class with these activities.

7. - When the students finish a problem-solving activity in groups, do you allow them to assess (self-assessment) and their classmates (peer-assessment)?

Table 24
PBL assessment

Options	Frequency	Percentages
Always	1	20,00%
Sometimes	2	40,00%
Never	2	40,00%
TOTAL	5	100%

Source: Survey for teachers
Created by**:** Guagchinga, N. (2018)
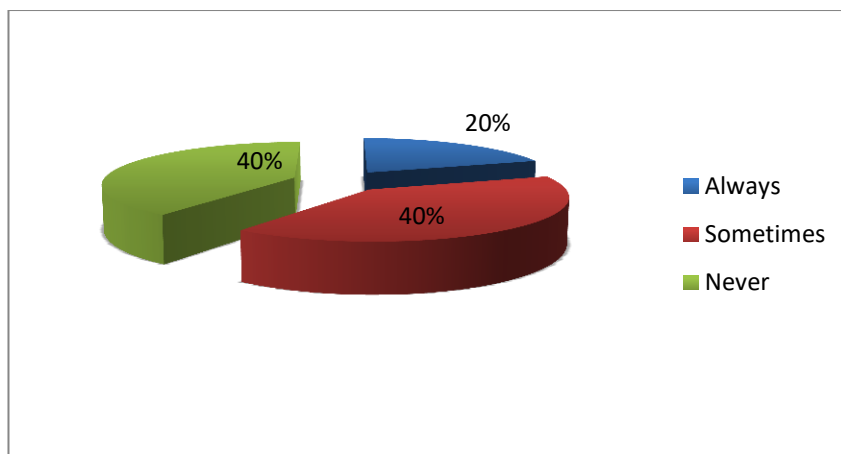
Figure 26 PBL assessment
Source: Survey for teachers
Created by**:** Guagchinga, N. (2018)

Analysis and interpretation

Based on the results showed above, 1 teacher who represents 20, 00% of those polled states that he always allows students assess (self-assessment) and their classmates (peer-assessment), 2 teachers who represent 40, 00% consider that sometimes, and 2 students who represent 40, 00% state never.

These results demonstrate that somehow or other some teachers apply the self and peer-assessment. Contradictory, students believe that teachers do not allow them to take part in the evaluation. Thus, there is a lack of self and peer-assessment application.

8. - When the students finish a problem-solving activity, how often do you give them feedback highlighting their weakness and strengths?

Table 25
Feedback

Options	Frequency	Percentages
Always	3	60,00%
Sometimes	2	40,00%
Never	0	0,00%
TOTAL	5	100%

Source: Survey for teachers
Created by**:** Guagchinga, N. (2018)
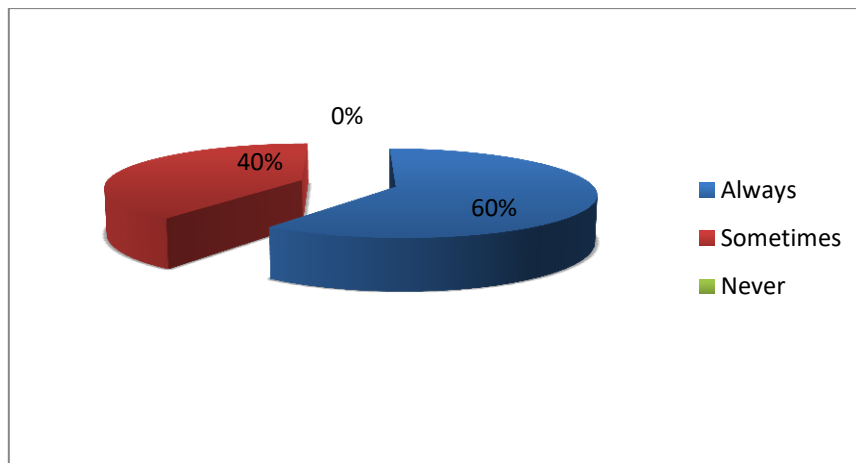
Figure 27 Feedback
Source: Survey for teachers
Created by**:** Guagchinga, N. (2018)

Analysis and interpretation

According to the outcomes showed above, 3 teachers who represent 60,00% of those polled consider that they always give students feedback highlighting their weakness and strengths, 2 teachers who represent 40,00% agree that they sometimes do it.

These results reveal that most the teachers give students feedback. Nevertheless, according to this question, students think differently, which induce me to consider that there is a lack of feedback which is an essential factor for PBL.

9. - When the students perform problem-solving activities in groups, do you promote oral interaction in English within the groups?

Table 26
Oral interaction

Options	Frequency	Percentages
Always	2	40,00%
Sometimes	3	60,00%
Never	0	0,00%
TOTAL	5	100%

Source: Survey for teachers
Created by**:** Guagchinga, N. (2018)
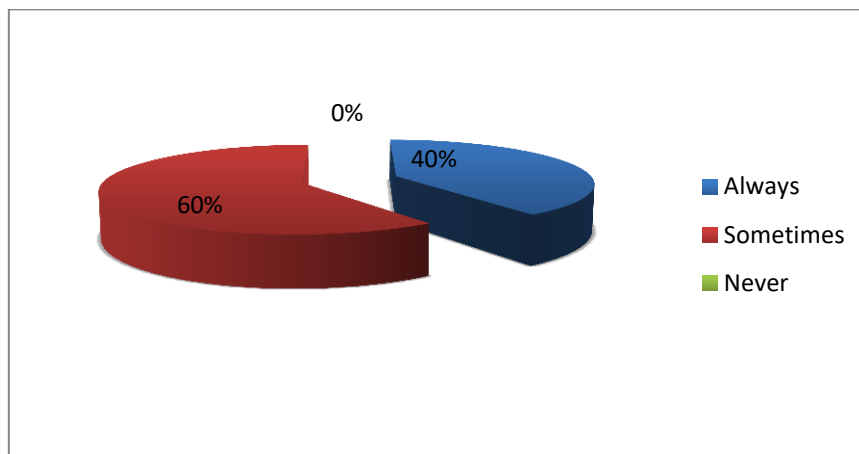
Figure 28 Oral interaction
Source: Survey for teachers
Created by**:** Guagchinga, N. (2018)

Analysis and interpretation

Based on the results showed above, 2 students who represent 40, 00% of those polled state that they always promote oral interaction in English within the groups, and 3 educators who represent 60, 00% consider that sometimes.

These results reveal that teachers encourage students to interact in their groups. However, most learners have an opposite position; consequently problem-solving activities need more control in order to maintain an active interaction.

10. - When the students speak English do they find it difficult to speak easily and quickly without having to stop and pause a lot (Speaking the language fluently)?

Table 27
Fluency

Options	Frequency	Percentages
Always	3	60,00%
Sometimes	1	20,00%
Never	1	20,00%
TOTAL	5	100%

Source: Survey for teachers
Created by**:** Guagchinga, N. (2018)
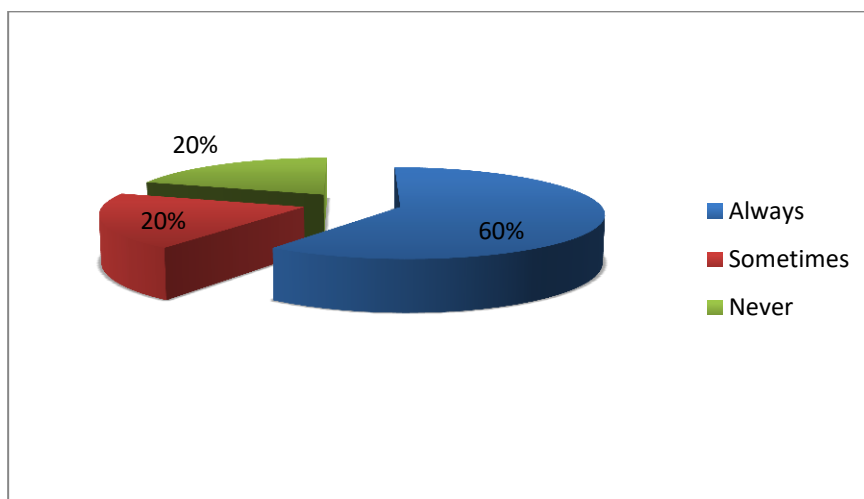
Figure 29 Fluency
Source: Survey for teachers
Created by**:** Guagchinga, N. (2018)

Analysis and interpretation

According to the data seen above, 3 teachers who represent 60, 00% of those polled state that students always find difficult to speak the language fluently, 1 teacher who represents 20, 00%, states that sometimes, and 1 teacher who represents 20, 00% considers that never.

These results are very important because they demonstrate that there is a problem on fluency. Even though teachers promote oral interaction and speaking activities, students are not fluent.

11.-. When the students perform an oral presentation, do you stress on grammar mistakes?

Table 28
Grammar mistakes

Options	Frequency	Percentages
Always	4	80,00%
Sometimes	1	20,00%
Never	0	0,00%
TOTAL	5	100%

Source: Survey for teachers
Created by**:** Guagchinga, N. (2018)
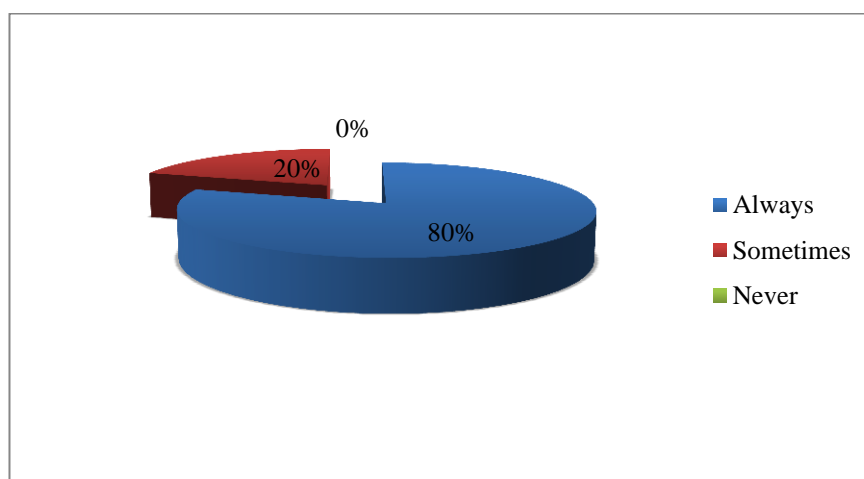
Figure 30 Grammar mistakes
Source: Survey for teachers
Created by**:** Guagchinga, N. (2018)

Analysis and interpretation

Based on the results showed above, 4 teachers who represent 80, 00% of those polled state that they always stress on grammar mistakes when students have an oral presentation, and 1 teacher who represents 20, 00% considers that never.

These results show that there is a great influence on grammar in speaking. Teachers pay special attention to grammar structures which impede learners to speak fluently. Contradictorily, PBL does not focus on accuracy.

12. – Do you apply a rubric for assessing speaking activities?

Table 29
Rubric for assessing speaking

Options	Frequency	Percentages
Always	5	100,00%
Sometimes	0	0,00%
Never	0	0,00%
TOTAL	5	100%

Source: Survey for teachers
Created by**:** Guagchinga, N. (2018)
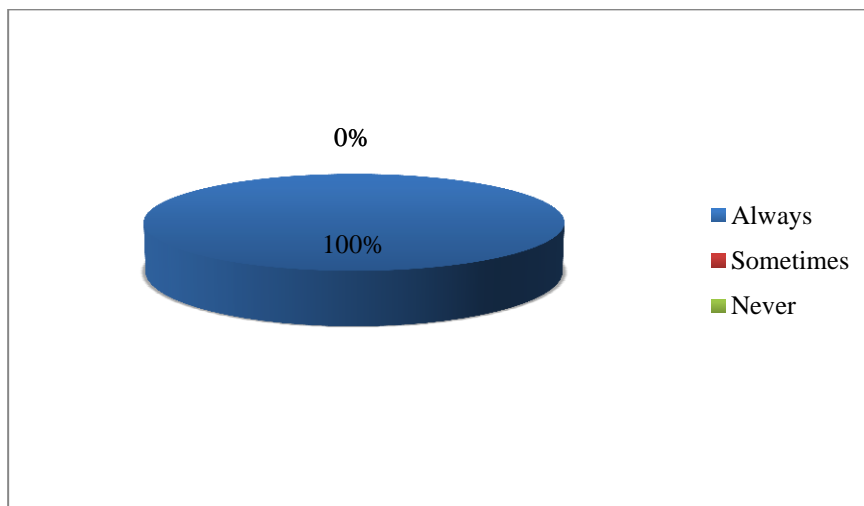
Figure 31 Source: Survey for teachers
Source: Survey for teachers
Created by**:** Guagchinga, N. (2018)

Analysis and interpretation

The results obtained for this question show that 5 teachers who represent 100% of those polled state that they always use a rubric for assessing speaking.

These results demonstrate that teachers manage rubrics in class, especially in speaking activities. This reality is important because PBL requires this kind of tools to assess students.

13. - How often do you apply the Problem-Based Learning approach to promote oral communication in class?

Table 30
Problem-Based Learning and speaking development

Options	Frequency	Percentages
Always	0	0,00%
Sometimes	2	40,00%
Never	3	60,00%
TOTAL	5	100%

Source: Survey for teachers
Created by**:** Guagchinga, N. (2018)
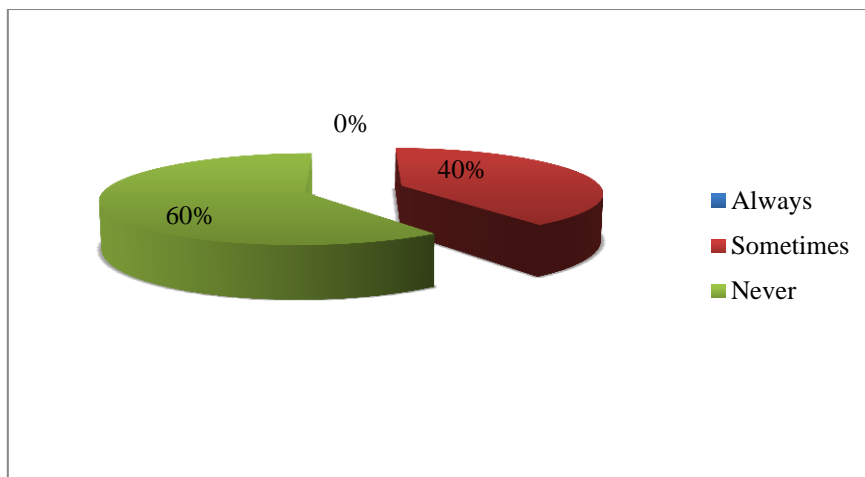
Figure 32Problem-Based Learning and speaking development
Source: Survey for teachers
Created by**:** Guagchinga, N. (2018)

Analysis and interpretation

According to the data seen above, 2 teachers who represent 40, 00% of those polled state that they sometimes apply the Problem-Based Learning approach to promote oral communication, 3 educators who represent 60, 00% consider that it is never applied.

These results demonstrate that there is a lack of PBL application in class. Therefore, most the teachers do not use this approach in order to promote speaking development.

4.3 Hypothesis verification

Logic model

Null hypothesis H₀: The Problem-Based Learning approach does not develop the speaking skill in English in B1 level students at Universidad Técnica de Cotopaxi.

Alternative hypothesis H1: The Problem-Based Learning approach develops the speaking skill in English in B1 level students at Universidad Técnica de Cotopaxi.

Mathematical model

H_0: $O \neq E$

$H1$: $O = E$

Statistical model

The hypothesis verification was done with the Chi-square statistical model. It was used in order to contrast if the observed frequencies differ from expected frequencies when there are two or more possible results, and if the two variables are independent. The result is checked with the null hypothesis and the alternative hypothesis in order to validate this research.

$$x^2 = \sum \frac{(Fo - Fe)^2}{Fe}$$

Reliability level

This research was carried out with the 95% of reliability level with an error level of $\alpha = 0, 05$.

Rule of decision

In order to determine the rule of decision the researcher calculated the degrees of freedom with the following formula.

Freedom degree = (number of columns – 1) x (number of row – 1)

3-1 = 2

5-1= 4

2 x 4 = 8

Freedom degree = 8

Distribution Chi-square.

Chi-square X^2t = 15, 5073

The null hypothesis is acceptable if X^2 c is smaller or equal to X^2_t

Ho is acceptable, if X^2c is ≤ to 15, 5073 with α = 0, 05.

5. Statistical calculation and final decision

Table 31
Observable data

	ALWAYS	SOMETIMES	NEVER	TOTAL
When you work in groups, does the teacher encourage the group to share their ideas in English?	17	16	20	53
When you discuss real-life problems, does the teacher apply the pyramid discussion and the talking circle activity?	3	21	29	53
When you perform problem-solving activities in groups, does the teacher promote oral interaction in English?	5	23	25	53
Does the teacher apply a rubric for assessing speaking activities?	29	20	4	53
How often does the teacher apply the Problem-Based Learning approach to promote oral communication in the class?	3	6	44	53
TOTAL	57	86	122	265

Source: Survey for students
Created by**:** Guagchinga, N. (2018)

Expected data

Always	(17*53)/265	11, 40
Sometimes	(16*53)/265	17, 20
Never	(20*53)/265	24, 40

Table 32
Expected data

	ALWAYS	SOMETIMES	NEVER	TOTAL
When you work in groups, does the teacher encourage the group to share their ideas in English?	11,400	17,200	24,400	53,000
When you discuss real-life problems, does the teacher apply the pyramid discussion and the talking circle activity?	11,400	17,200	24,400	53,000
When you perform problem-solving activities in groups, does the teacher promote oral interaction in English?	11,400	17,200	24,400	53,000
Does the teacher apply a rubric for assessing speaking activities?	11,400	17,200	24,400	53,000
How often does the teacher apply the Problem-Based Learning approach to promote oral communication in the class?	11,400	17,200	24,400	53,000
	57,000	86,000	122,000	265,000

Source: Survey for students
Created by**:** Guagchinga, N. (2018)

Chi-square = O-E (O.E) ^2 (O-E) 2/E

Table 33
Chi-square X²c

	ALWAYS	SOMETIMES	NEVER	Total
When you work in groups, does the teacher encourage the group to share their ideas in English?	2,751	0,084	0,793	3,628
When you discuss real-life problems, does the teacher apply the pyramid discussion and the talking circle activity?	6,189	0,840	0,867	7,896
When you perform problem-solving activities in groups, does the teacher promote oral interaction in English?	3,593	1,956	0,015	5,564
Does the teacher apply a rubric for assessing speaking activities?	27,172	0,456	17,056	44,683
How often does the teacher apply the Problem-Based Learning approach to promote oral communication in the class?	6,189	7,293	15,744	29,227
Total	45,895	10,628	34,475	90,998

Source: Chi-square calculation
Created by**:** Guagchinga, N. (2018)

Final decision

Once the researcher did the mathematical analysis, it was determined that Chi-square with the investigated data is X²c= 90,998 which is higher than X2t = 15, 5073, taking into consideration 95% of reliability level. Therefore, the researcher rejected the null hypothesis and accepted the alternative hypothesis. Thus, the Problem-Based Learning approach develops the speaking skill in English in B1 level students at Universidad Técnica de Cotopaxi.
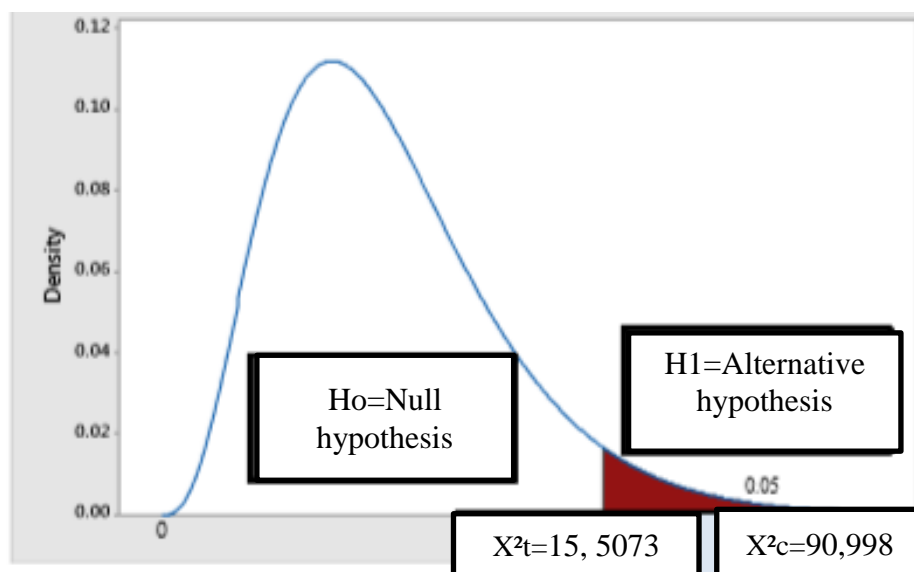

Figure 33 Chi-square
Source: Chi-square calculation
Created by**:** Guagchinga, N. (2018)

6.- Pre and post-test analysis of results

The analysis of results was carried out after the application of a pre and post-test to the experimental group. The researcher used the IBM SPSS statistics program in order to analyses the results through Wilcoxon Sign Rank and Mann-Whitney test to prove the hypothesis. On the other hand, the researcher applied the Problem-Based Learning approach for five weeks, students worked online in the Moodle platform as well as in the classroom. The pre-test and post-test were based on the Preliminary English Test (PET), which is a standardized exam by Cambridge University Press (2010) to measure the level of students' speaking development.

After collecting the data, it was analyzed with parameters included in the rubric for speaking; it was taken from Euroexam Company. Four sub-skills were assessed such as grammar, fluency, pronunciation, and communication. The following results are presented in the tables and graphics below.

7. Data interpretation

Control group
Range and accuracy
Table 34
Range and accuracy in the control group

Pre-test	Post-test	Expected average
2,91	3,06	5

Source: Pre and post-test averages –Control group
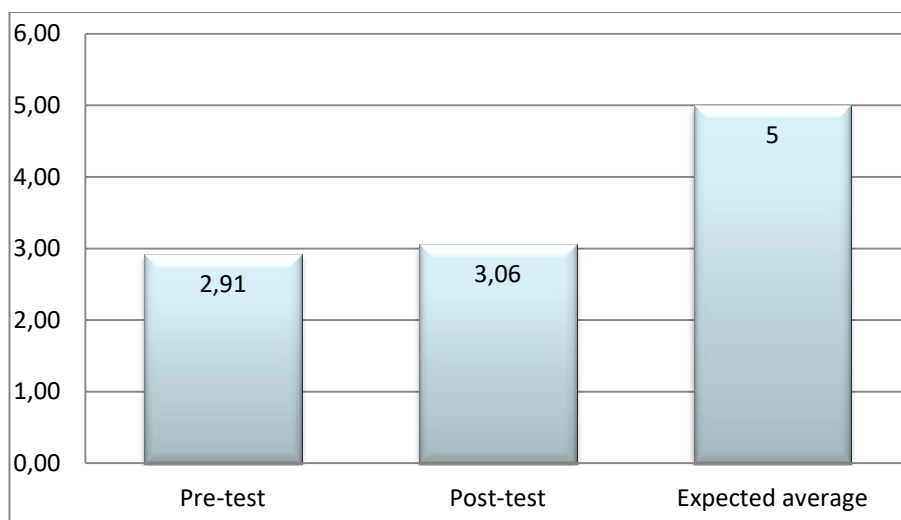Created by**:** Guagchinga, N. (2018)

Figure 34 Range and accuracy in the control group
Source: Pre and post-test averages –Control group
Created by**:** Guagchinga, N. (2018)

Analysis and interpretation

According to the results of the research, the average in the criterion of range and accuracy, the control group obtained an average of 2, 91 in the pre-test, similar to the 3, 06 that they got in the post-test.

This result shows that students had some hesitations and an insufficient grammar with frequent errors in simple sentences in the pre-test. Even though the average improved in the post-test, it is evident that there is no a great difference between their first and second test.

Fluency in the control group

Table 35
Fluency in the control group

Pre-test	Post-test	Expected average
3,09	3,14	5

Source**:** Pre and post-test averages –Control group
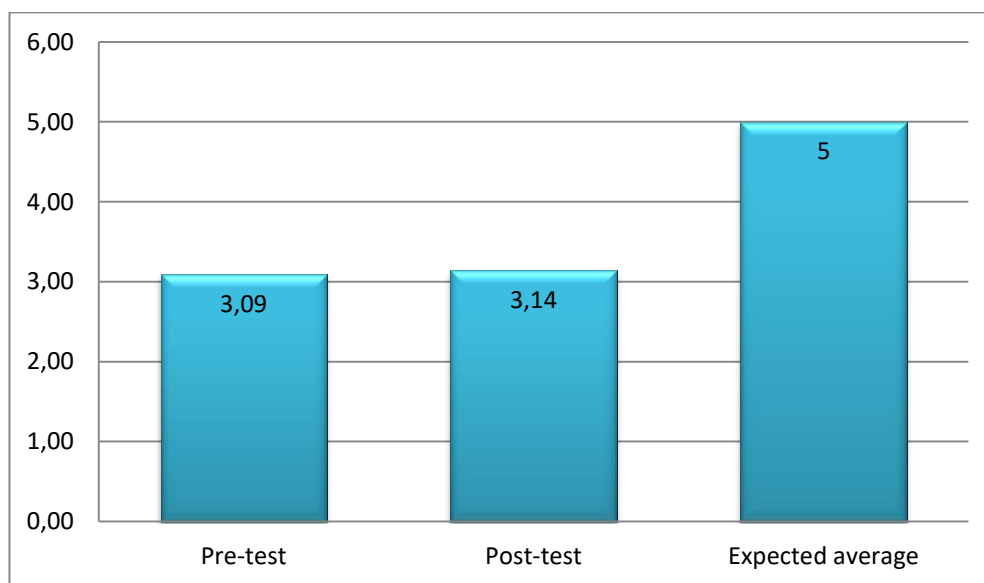Created by**:** Guagchinga, N. (2018)

Figure 35 Fluency in the control group
Source: Pre and post-test averages –Control group
Created by**:** Guagchinga, N. (2018)

Analysis and interpretation

As reported by the results of the research, there is a limited improvement in the control group, it obtained an average of 3, 09 and after the post-test application, it increased to 3, 14.

The results in the pre-test show that students had difficulty doing coherent flow of speech and liking ideas into clear. However, as the result reveal in the post-test this criterion does not show a significant improvement between their previous knowledge to that they acquired at the end.

Pronunciation in the control group

Table 36
Pronunciation in the control group

Pre-test	Post-test	Expected average
2,94	3,06	5

Source**:** Pre and post-test averages –Control group
Created by**:** Guagchinga, N. (2018)

Figure 36 Pronunciation in the control group
Source**:** Pre and post-test averages –Control group
Created by**:** Guagchinga, N. (2018)

Analysis and interpretation

As stated in the results of the research, the control group obtained an average of 2, 94 in the pre-test, very similar to the 3, 06 that they got in the post-test. There is an increase of only one-tenth.

This result means that students' pronunciation did not improve much in the pre-test between the pre and post-test. There were significant pronunciation difficulties, certain sounds somehow impeded communication of the message.

Communication strategies in the control group

Table 37
Communication strategies in the control group

Pre-test	Post-test	Expected average
2,97	3,09	5

Source: Pre and post-test averages –Control group
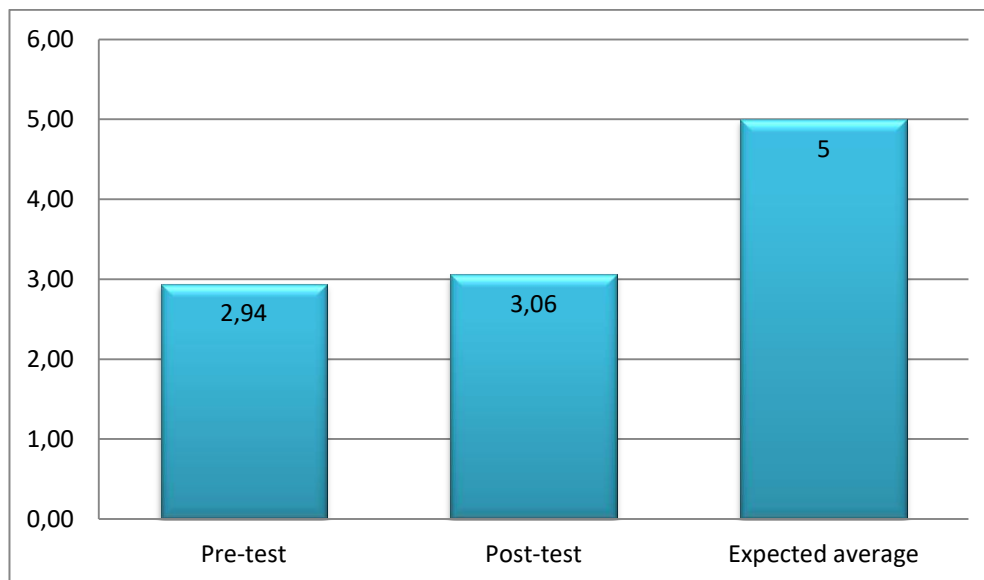Created by**:** Guagchinga, N. (2018)
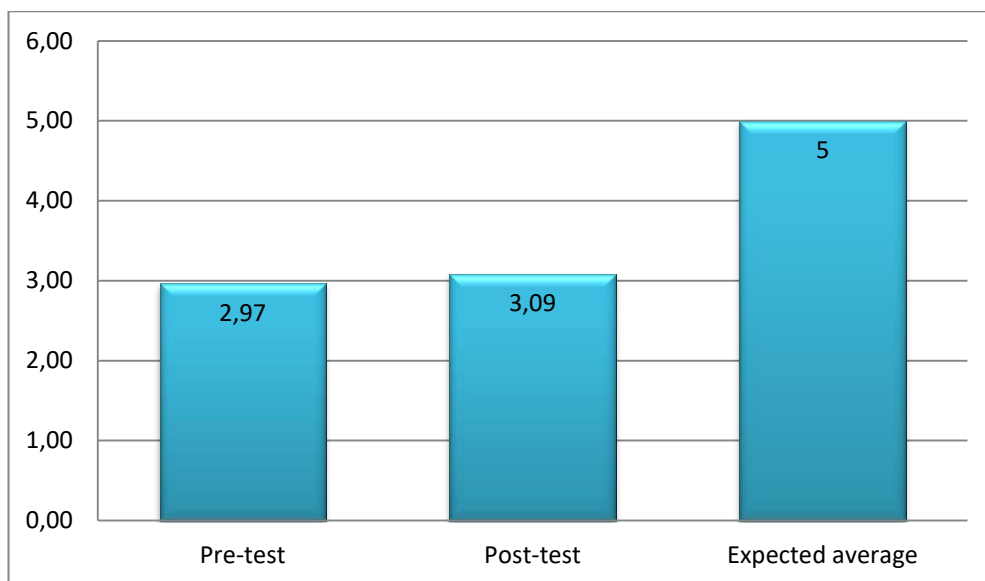
Figure 37 Communication strategies in the control group
Source: Pre and post-test averages –Control group
Created by: Guagchinga, N. (2018)

Analysis and interpretation

According to the results of the research, the control group obtained an average of 2, 97 in the pre-test, similar to the 3, 09 that they got in the post-test.

This result means that in the pre-test students did not initiate, maintain and end turns using basic language did not use repair strategies such as clarifications and circumlocution. However, in the post-test somehow they attempted to initiate and maintain conversations. Generally speaking, there was not a significant variation in these results.

Experimental group
Range and accuracy

Table 38
Range and accuracy in the experimental group

Pre-test	Post-test	Expected average
3,00	3,21	5

Source: Pre and post-test averages –Experimental group
Created by**:** Guagchinga, N. (2018)

Figure 38 Range and accuracy in the experimental group
Source**:** Pre and post-test averages – Experimental group
Created by**:** Guagchinga, N. (2018)

Analysis and interpretation

The results from the experimental group show that in grammar students obtained an average of 3,00 in the pre-test, very similar to the 3, 21 that they got in the post-test.

This result shows that students develop their accuracy especially after using the Moodle platform with Problem-Based Learning activities. Although, they are still using simple structures in sentences, and do not significantly hinder communication.

Fluency in the experimental group

Table 39
Fluency in the experimental group

Pre-test	Post-test	Expected average
3,12	3,97	5

Source: Pre and post-test averages – Experimental group
Created by**:** Guagchinga, N. (2018)
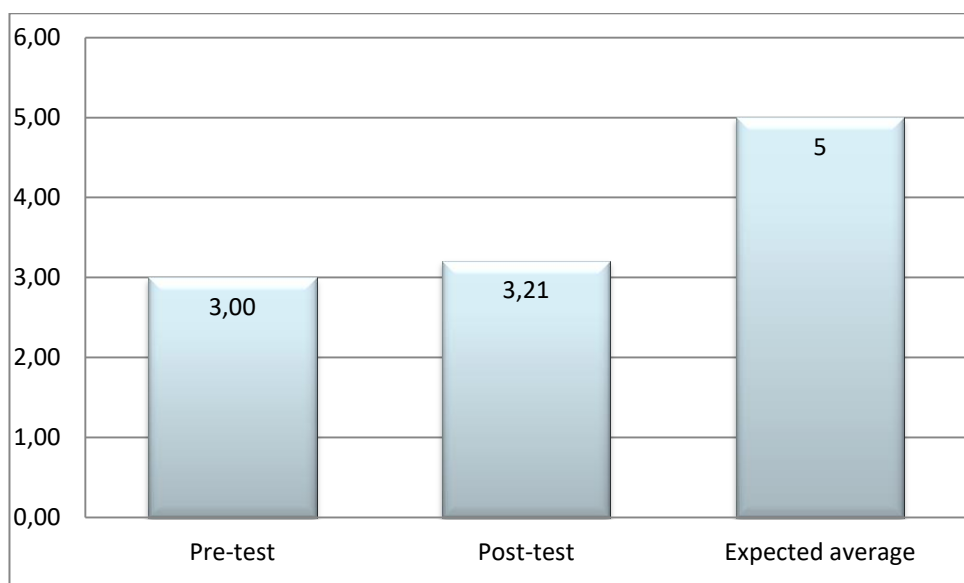

Figure 39Fluency in the experimental group
Source: Pre and post-test averages – Experimental group
Created by: Guagchinga, N. (2018)

Analysis and interpretation

As stated in the results of the research, the experimental group obtained an average of 3, 12 in the pre-test, and an increase of 8 tenths with an 3, 97 average in the post-test.

This result reveals that students developed their fluency after using PBL online in the platform and in the English class. Students kept going comprehensibly and some of them could link ideas into coherent discourse, although with noticeable jumpiness in especially in extend contributions.

Pronunciation in the experimental group

Table 40
Pronunciation in the experimental group

Pre-test	Post-test	Expected average
2,97	3,47	5

Source**:** Pre and post-test averages – Experimental group
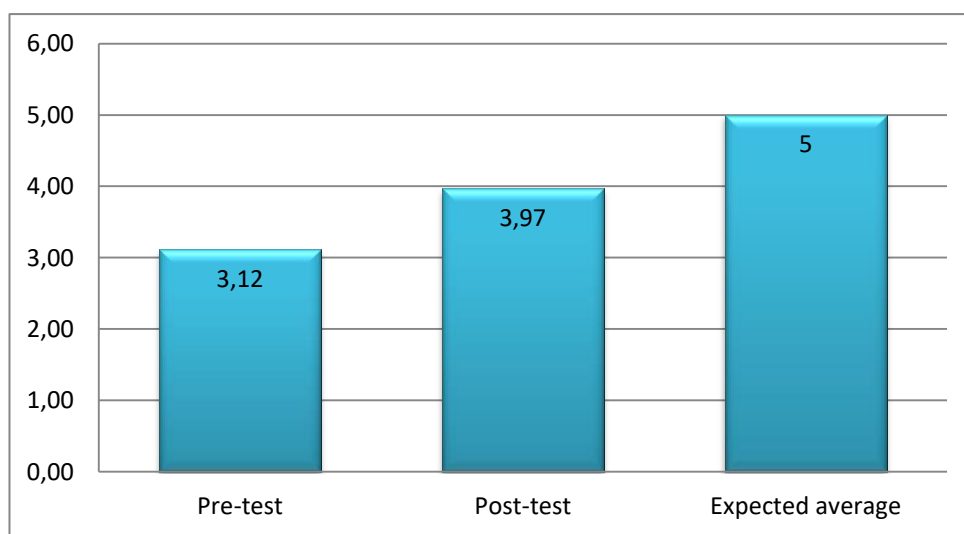Created by**:** Guagchinga, N. (2018)

Figure 40 Pronunciation in the experimental group
Source: Pre and post-test averages – Experimental group group
Created by**:** Guagchinga, N. (2018)

Analysis and interpretation

According to the results of the research, the control group obtained an average of 2, 97 in the pre-test, which was surpassed with an average of 3, 47 that they got in the post-test.

This average shows that students' pronunciation was clearly intelligible with appropriate intonation in spite of mispronunciations put some strain on the listener but rarely impeded communication.

Communication strategies in the experimental group

Table 41
Communication strategies in the experimental group

Pre-test	Post-test	Expected average
3,06	3,79	5

Source: Pre and post-test averages – Experimental group
Created by**:** Guagchinga, N. (2018)
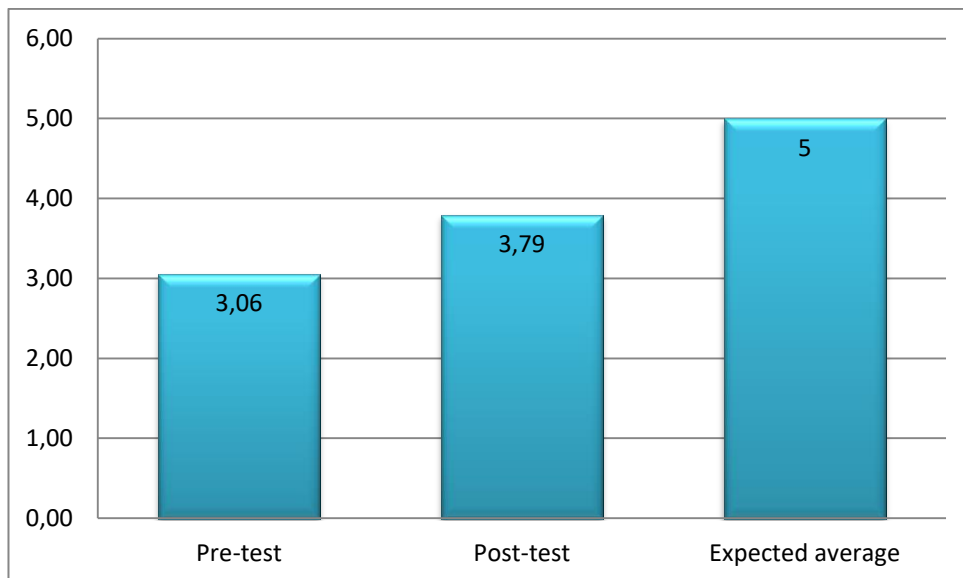
Figure 41 Communication strategies in the experimental group
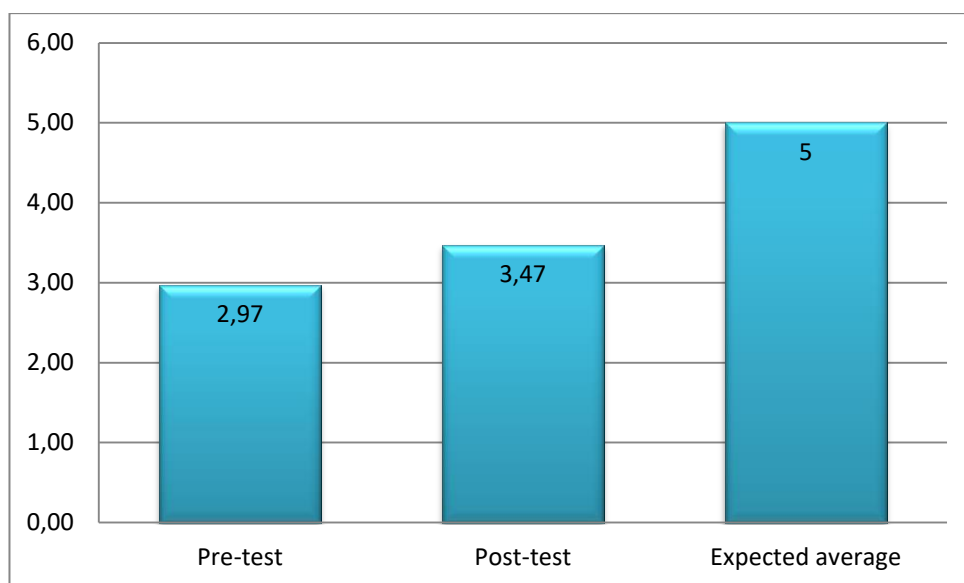**Source:** Pre and post-test averages – Experimental group
Created by**:** Guagchinga, N. (2018)

Analysis and interpretation

As reported by the results of the research, the experimental group obtained an average of 3, 06 in the pre-test, and an increase of seven-tenths with an 3, 79 average in the post-test.

This result reveals that students developed their communication strategies after working with the PBL approach. Each student initiated and ended turns satisfactorily using basic language. they maintained conversations, in general and appropriate manner.

Final speaking averages

Pre and post-test – Comparison control and experimental group

Table 42
Pre and post-test – Comparison control and experimental group

	Control group	Experimental group	Expected average
Pre-test	2,98	3,04	5,00
post-test	3,09	3,61	5,00

Source: Pre and post-test averages –Control and experimental group
Created by**:** Guagchinga, N. (2018)
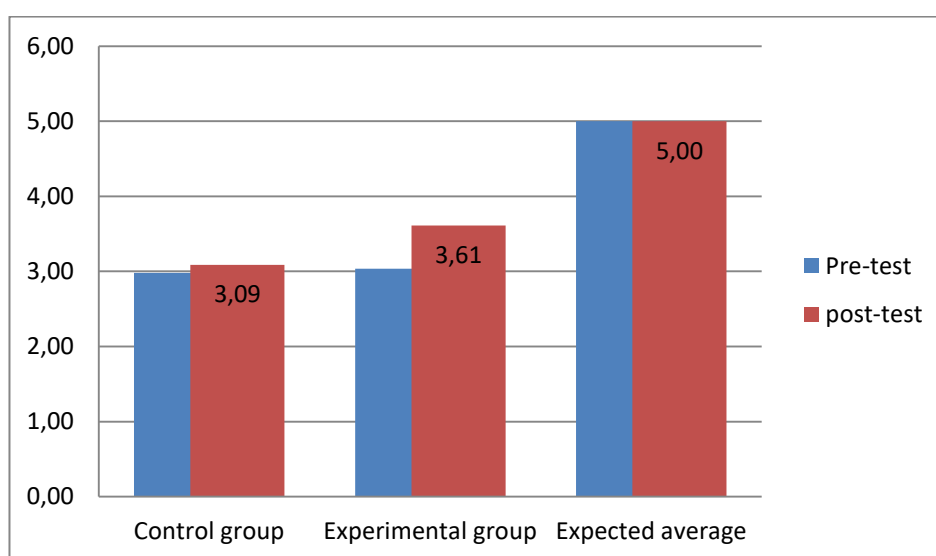
Figure 42 Comparison control and experimental group
Source: Pre and post-test averages –Control and experimental group
Created by**:** Guagchinga, N. (2018)

Analysis and interpretation

The data were analyzed comparing the final averages of pre and post-test results they both control and experimental group. The control group obtained an average of 2, 98 in the pre-test, and 3, 09 in the post-test. On the other hand, the experimental group obtained an average of 3, 04, and 3, 61 in the post-test.

These results reveal that there was a significant improvement in the experimental group. The final average was higher than the control group. Participants developed their speaking skill, especially in fluency.

8. Hypothesis verification

Table 43
NPar Tests General Hypothesis Wilcoxon Signed Ranks Test

		N	Mean Rank	Sum of Ranks
Post_test - Pre_test	Negative Ranks	15[a]	16,93	254
	Positive Ranks	46[b]	35,59	1637
	Ties	8[c]		
	Total	69		

Test Statisticsb

	Post_test - Pre_test
Z	-5,035[a]
Asymp. Sig. (2-tailed)	,000

a. Based on negative ranks.
b. Wilcoxon Signed Ranks Test
Mann-Whitney Test
Ranks
Explore
Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Pre_test	69	100,00%	0	0,00%	69	100,00%
Post_test	69	100,00%	0	0,00%	69	100,00%

Rank

	Group	N	Mean Rank	Sum of Ranks
Pre_test	1	35	33,49	1172
	2	34	36,56	1243
	Total	69		
Post_test	1	35	26,8	938
	2	34	43,44	1477
	Total	69		

Source: IBM SPSS statistics – pre and post test
Created by: Guagchinga, N. (2018)
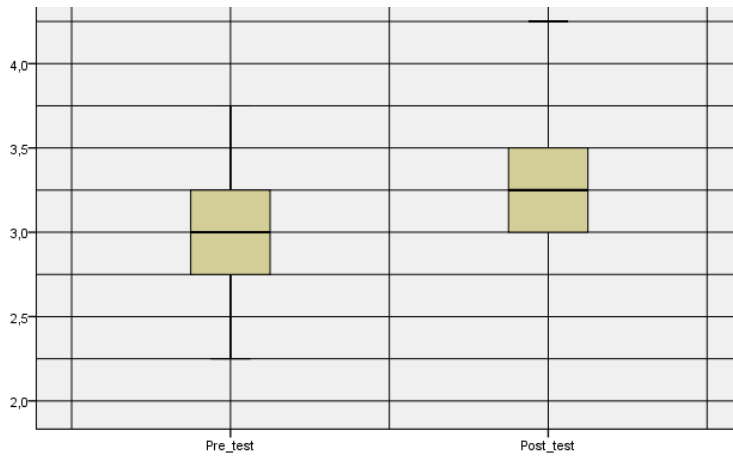
Figure 43 Pre and post -test difference
Source: IBM SPSS statistics
Created by: Guagchinga, N. (2018)

As stated in the results of Wilcoxon Sign Rank and Mann-Whitney test difference is highly significant (, 000) which is lower than (0, 05) therefore the application of the Problem-Based Learning approach develops the speaking skill. Furthermore, the analysis of results of the pre and post-test of B1 level students shows that the null hypothesis is rejected whereas the alternative hypothesis is accepted.

CHAPTER V
CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

❖ 80, 00% of teachers are concerned about the importance to develop Problem-Based Learning activities to enhance the speaking skill. Problem-solving skills, real-life problems, collaborative learning and self-directed learning are related to PBL. The pyramid discussion and the talking circle are activities that proved to be very effective to develop the speaking skill in English. Thus, after the intervention in the experimental group with these activities, in the post-test, there was an improvement of more than half a point in the speaking skill.

❖ The results of the survey showed that 83, 02% of students considered that teachers do not apply the Problem-Based Learning approach to enhance oral communication in class. Therefore, 60, 00 % of teachers agree that this approach is unknown to them. Also, they do not develop the problem-solving skill as well as open-ended problem activities which are the main components of PBL.

❖ There is a great influence between Problem-Based Learning and the speaking skill. According to the IBM SPSS statistics program, the Mann-Whitney Test shows that in the sum of ranks, in the pre-test there are 938 points and in the post-test there are 1477 points of improvement. It proves the reliability of this research. In addition, in fluency development, there is an improvement of 87 tenths. As seen in the results of this research, the Moodle platform based on PBL benefits the development of the speaking skill since there is a significant influence, specifically in fluency.

5.2 Recommendations:

❖ It is advisable that teachers focus on oral activities that promote interaction as much as possible. Thus, students can develop their speaking skill and can convey their ideas in English. Teachers should apply the PBL methodology and they should focus on activities such as the pyramid discussion and talking circle since they stress on developing interaction and discussions.

❖ It is suggested that educators teach English through student-centered approaches rather than teacher-centered approaches which are known as a traditional methodology. Consequently, teachers should apply the Problem-Based Learning approach to enhance oral communication in class. The implementation of PBL has many benefits in terms of high-order thinking skills and teamwork development.

❖ It is highly recommended to incorporate the use of technology such as the Moodle platform as a way to enhance students' participation in Problem-Based Learning activities inside and outside the classroom. The combination of a virtual class and PBL enhances students' language skills. Furthermore, students' motivation is increased when they do PBL activities in an on-line environment. As a result, it will enhance oral communication, the reading, listening skills and what is more, there will be an improvement in fluency. Finally, students will feel more confident and responsible.

CHAPTER VI
ALTERNATIVE PROPOSAL

6.1 Informative data

a. Theme:

Problem-based approach to develop the speaking skill.

b. Institution:

Universidad Técnica de Cotopaxi

c. Beneficiaries:

Direct beneficiaries were B1 students of UTC

d. Location:

Latacunga – Cotopaxi

e. Estimated execution time:

Last 5 weeks of the academic period April – August 2018

f. Person in charge

Researcher: Nelson Wilfrido Guagchinga Chicaiza

6.2 Background of the proposal

This research emerged considering a problem detected in B1 level students of the Language Center at Universidad Técnica de Cotopaxi. Teachers do not apply student-centered approaches such as the Problem-Based Learning approach; consequently, the English teaching-learning process has been focused on accuracy rather than fluency.

Therefore, the PBL was considered as an approach that contributes to develop the speaking skill, especially in fluency. The researcher did a literature review in order to go deeply into detail concerning how PBL works in language learning, the activities that this approach uses to develop the speaking skill, the assessment and how to carry out PBL online and outline.

This proposal included a student-centered approach in which students develop problem-solving skills. It uses the PBL approach, taking into consideration that it focuses on real-life problems. In addition, this proposal is focused on developing the speaking skill using Information and communication technologies (ICT) like the Moodle platform which is a virtual environment where students can interact and enhance the self-directed learning. Additionally, students need to work in the classroom to maintain a face to face communication as well.

6.3 Justification

Undoubtedly, tertiary education requires more autonomous students; this century is based on the use of technologies. Hence, online environments promote the development of self-directed learning. ICT stimulates students to have a broad spectrum of opinions concerning real-life problems and improve teamwork. Thus, platforms facilitate the educational process in terms of language learning.

Certainly, the Moodle platform has a variety of elements that contribute to develop the speaking skill in English. This platform has many tools and features that enable new and original education educational experiences in teachers and students. Blended-learning enhances students' participation and motivation to learn; consequently, teachers become a couch and students are more self-directed, which is important in tertiary education.

As it was stated before, the combination of the PBL approach and the Moodle platform has a great impact on developing English language learning. This

blending is feasible because students are able to interact with their classmates online, switching ideas concerning real-life problems. PBL focuses on discussions and the development of problem-solving skills which can be easily carried out in the platform. Finally, the use of this approach and platform contributes to take the traditional education apart and enables teachers to promote student-centered learning.

6.4 Objectives

6.4.1 General objective

❖ To design a platform of active and interactive oral activities based on the Problem-Based Learning approach in order to develop the speaking skill with B1 level students of the Language Center at UTC.

6.4.2 Specific objectives

❖ To explore the most useful activities focused on PBL to enhance the students' speaking skill.
❖ To design an interactive platform with the identified PBL speaking activities in order to improve oral communication online and in the English class.
❖ To evaluate if the application of the Moodle platform and the activities based on the PBL approach improve the speaking skill.

6.5 Feasibility analysis

This proposal is feasible because of the following factors:

Technical: The person in charge of the proposal is an experienced teacher that knows how to use a Moodle platform and guide students to practice oral interaction in order to develop the speaking skill.

Administrative: This proposal was carried out at the Language Center of Universidad Técnica Cotopaxi. This research had the director's approval and permission.

Economical: This proposal is feasible since it does not require spending money on creating a platform because the author used a free one. Finally, the researcher had covered other expenses of this proposal

6.6 Proposal fundamentals
Scientific fundamental

This proposal is based on the cognitivist paradigm that replaced the behaviorist paradigm. This paradigm was proposed by Chomsky in 1959. It focuses on the role of the mind in linguistics. Cognitivism has as the main idea the mental function and the processing of information.

Cognitivism based on the inner mental activities that work in order to produce certain outcomes. It transforms ideas in the mind as a computer, analyses how the mental processes help to produce language. It tries to open the "black box" of the mind; thus, teachers stimulate students' mind to process ideas in their minds to convey innovative ideas (Yilmaz, 2015).

Also, this proposal focuses on meaningful learning. This theory is attributed to Ausubel. This author also stresses on the importance of reception rather than rote learning. Students are considered to be the center of the teaching, and the teacher is a couch. Meaningful learning occurs when the student relates new information with prior knowledge.

The meaningful learning theory states that students learn through relating what they already know with new information. When there is a blending between prior and new knowledge, learners are able to retain and apply what they learn. The

students' role is focused on having an active participation and the teacher has to reinforce new learning by analyzing information. There are three requirements to develop meaningful learning such as relevant prior knowledge, meaningful material, and the student must choose to learn meaningfully (Vallori, 2014).

Problem-Based Learning

This proposal uses the Problem-Based Learning approach. It applies real-world problems in order to promote the development of many learning factors such as critical thinking skills, problem-solving abilities, and communication skills. In addition, it is a student-centered approach that focuses on learners and oral interaction.

In essence, PBL takes rote learning apart, the teacher becomes a couch and students are active participants. They usually work in groups in order to develop problem-solving skills. Learners feel engaged with the content and try to search for more information, thus sometime students become self-directed, and problem solvers. Likewise, it is useful in open-ended problems when there are a variety of solutions (Phungsuk & Ratanaolarn, 2017).

E-learning

Nowadays, the development of information, technologies, and multimedia, also the wide-ranging use of the internet as a new tool of learning languages, has made some important changes in education. Actually, more students prefer learning online rather than in the classroom. There are many advantages to using e-learning in higher education.

E-learning is a computer-based educational tool, which students are using it now since they want to learn anywhere and anytime. It runs on internet access and technological gadgets such as smartphones, tablets or laptops. Participants can

share, see, download and upload material in many different kinds of formats such as PDFs, videos, slideshows, and word documents. The teacher can monitor students' performance using online communication via chat and message forums. Finally, this way of learning has great influence on building study groups, encouraging interaction and collaboration among learners (Arkorful, 2014).

Moodle platform

E-learning consists of a set of online tools, there is a system that provides many configurable features. Modular Objective-Oriented Dynamic Learning Environment (Moodle) is a kind of platform that higher education uses as a tool to create a virtual learning. This kind of platform is an opened-sourced e-learning platform that enables the creation of online courses.

The Moodle platform allows students to exchange information and conveys ideas geographically diapered. It uses two kinds of mechanisms such as synchronous and asynchronous. The first refers to chats rooms and the second focuses on discussion forums. This platform has configurable features that the teacher can create different courses and work simultaneously. Furthermore, the educator can design tasks, online assessment, wikis, and downloaded documents (Costa, Alvelos, & Teixeira, 2012).

According to Deepali (2016) The Moodle platform has some features that enable students to maintain an active participation and communication such as:

Internet forums

This tool is a discussion site; students can hold conversations using a written or oral way. Forums differ from chat rooms, learners chat using shorter lines and they are temporarily saved. Internet forum allows learners to post and discuss a topic, other students can comment with their point of view in a linear fashion.

Wiki

A wiki is a website that can be collaborative with everyone being able to edit it. It has many uses such as for group lecture notes, for planning a scheming agenda, for collaborative storytelling, students can write a line or verse. Finally, it can be used as a personal journal for notes or revision.

Chat rooms

Chats are useful when the group is not available to meet face-to-face. Students can use it to maintain regular meetings in online courses when a student did not attend a class, in sessions to help students to prepare for quizzes, and exchange experiences among users. This tool facilitates both one-to-one and many-to-many communication.

6.7 Methodology

This proposal of a PBL course is a student-centered approach in which students develop problem-solving skills; they work in groups in the class and online using the Moodle platform. Students solve real-life and opened-ended problems. The teacher monitors students' performance and encourages them to maintain an active participation. In addition, because participants deal with oral interaction in groups and oral report presentations, learners will improve their fluency which is a sub-skill in speaking.

The PBL course

This course is divided into five stages adapted from Karyuatry (2014) which will be developed inside and outside the classroom. The teacher becomes a couch rather than a provider of knowledge, and students become self-directed. Also, the PBL course is divided into five sessions with a different problem each, one per

week. Each session will have four lessons, which will be applied in the classroom and online.

PBL guidelines

Before starting the sessions the teacher needs to explain the PBL course to students. First, the teacher explains how PBL works, the student's role, and general guidelines. Second, the teacher provides an overview of the classroom activities and online activities. Finally, the educator clarifies the way of assessing concerning self and peer-assessment as well as group assessment, students can download the rubrics from the Moodle platform.

Lesson 1
Step 1.- Orienting the students to the problem

Once the teachers explained how the course works and introduces the real-life problem using handouts such as flashcards, videos or other resources, but he does not reveal the problem yet. The teacher asks questions about what students see on the card. The purpose of this activity is to engage students, and the teacher verifies learners' background knowledge.

Step 2. Organizing students to inquiry

Once the teacher introduces the problem, the educator reveals the real-life problem (e.g. violence against women) and gives a lecture on the problem briefly; the educator can use different resources such as videos, readings, and images. The teacher divides into groups of five students. Before forming groups, it is recommendable to read some considerations that Richards and Renandya (2002) proposed in the theoretical framework.

The teacher can apply the talking circles activity proposed by Kay (2014) or the

pyramid discussion by Richards and Renandya (2002). All members of the group participate actively; the teacher monitors the discussion in class. Finally, the teacher tells the students that; they have some time to read some suggested webpages on the platform and search for more information about the problem and read it.

Students must do their homework on the platform. This will be related to the readings that the teacher suggested. Learners must complete five different homework; they will record a video or an audio to convey their ideas.
Lastly, they will discuss in the Moodle platform. This platform has some information concerning the problem. It is necessary to emphasize that this is an open-ended problem, and thus there will be more than one possible solution per group.

Lesson 2
Step 3.- Guiding the exploration.
Online research and discussion

The teacher verifies student's performance by checking their participation on the platform. The teacher monitors students' contributions during the discussion and answers some learners' questions in the chat. Students must sign in the platform to read some recommendable information. Students are required to search for authentic information in order to solve the problem, at this point learners become self-directed. Each group works together and they can share or highlight relevant information in the forum before discussing the solution. Each group has an individual forum, and there is a chat for the whole class to ask questions.

Once students have read and searched for more information; they share some findings and ideas to solve the problem using the forum. They must discuss the possible solutions respecting classmates' points of view. Also, they participate actively in the discussion. Students' solutions are sent by audio using a

microphone and earphones, so students participate in the forum by recording their voices. The other members of the group listen and give their points of view or other alternative solutions; they record their ideas and send to the group too. The students' discussion is the most important element of PBL; they will develop the speaking skill concerning fluency as well.

Lesson 3

Discussion inside the classroom

Once students have discussed the solution online; they will interact inside the classroom. Thus, the teacher organizes the groups and they have a final discussion, learners brainstorm the problem and solutions. After discussing possible solutions Students use the graphic organizer proposed by Bellanca (2007) to organize the solution or solutions.

Step 4.- Developing and presenting the solution

Once learners have discussed the problem online and inside the classroom; they develop and present the solution. Learners prepare the solution; it is possible for the group to produce more than one answer taking into consideration that it is an open-ended problem. In addition, they report to the entire class the process that they have applied to find the information and the solution, as well as the difficulties that they have faced. Learners can use images, mind maps or other visual aids to present their findings.

Assessment

5. Reflecting on the problem-solving process

The teacher assesses students' work; also students need to reflect on their contributions and effort. Rubrics have some criteria concerning PBL elements, and learners can download them from the platform. There are three different kinds

of assessment such as group presentation and peer and self-assessment. The teacher evaluates the group when they present the solution to the problem in the classroom; he emphasizes on student's strengths and weaknesses. Students take the peer and self-evaluation online, in the Moodle platform after class.

Moodle platform

https://problembasedlearning.milaulas.com

6.7.1 Operating model

Phases	Objectives	Activities	Resources	People responsible	Time
1.- PLANNING	To communicate the institution authorities about the proposal. To prepare the agenda of PBL activities online and in the classroom.	1. - Make a request for carrying out this proposal to the director. 2.- Applying a survey to verify the problem. 3.- Design the PBL platform 4.- Apply a pre-test 5.- Apply the PBL platform to develop the speaking skill. 6.- Apply s post-test.	Surveys Moodle platform	Author of the proposal	**3 weeks**
2.- SOCIALIZATION	To introduce the proposal to the director and students.	Explain the proposal to students.	Power Point presentation. Smart board	Author of the proposal	**2 hours**

3.- APPLICATION	To apply the PBL platform	Development of the following problems. ❖ Violence against women ❖ Stray dogs ❖ Illegal immigration ❖ Violence in the media ❖ Unemployment	Sessions on the PBL platform and in the classroom. Smart board Teaching aids	Author of the proposal	5 weeks
4.- ASSESSMENT	To assess the effectiveness of the PBL approach to develop the speaking skill through the Moodle platform.	Assess each activity developed. Compare the pre-test and post-test.	Rubrics and PET exam. Smart board	Author of the proposal. English teachers.	**3 weeks**

Figure 43 Operating model
Source: PBL platform
Made by**:** Guagchinga, N (2018)

6.8 Assessment

This proposal uses an alternative evaluation rather than traditional evaluation. The teacher assesses students' effort and contributions. Also, the teachers use rubrics to assess students concerning PBL factors. There are three different kinds of assessment such as group presentation and peer and self-assessment. Students must take the peer and self-evaluation online, in the Moodle platform respecting the schedule and the teacher assess the five groups.

Handbook

Blending Problem-based learning environments

By: Nelson Guagchinga

"Education is the most powerful weapon which you can use to change the world" - Nelson Mandela

TABLE OF CONTENTS.

To teachers

Nowadays, most teachers are looking for new ways of teaching English. Traditional education tends to maintain a structured schedule of attending class having face-to-face communication with the teacher. There are some advantages such as class settings can offer more opportunities to ask questions to the teacher and support all the time.

However, the development of technology and the amount of time students have to dedicate to schoolwork are some reasons to take online courses. Tertiary education requires time consuming and learners need to manage their time in such way they can fulfill with all their responsibilities. There are innumerable manners to relate technology with education; actually, the internet is synonym of innovation.

Problem-Based Learning is a student-centered approach; this enables students to learn English through real-world problems using the discussion as the main component to have an active participation. PBL promotes the development of problem-solving and communication skills. Also, It provides students many advantages such as self-directed learning, teamwork, life-long learning, alternative assessment (self and peer assessment), and oral interaction.

This handbook focuses on the PBL approach; likewise it blends traditional and innovative education. It has a set of activities that students carry out in the classroom and online in the Moodle platform. There are five different real-world problems, each one has a logical sequence of five steps; based on the PBL approach, at the end of each problem students take a peer, self or group assessment. The goal of this handbook develops the speaking skill with discussions and oral interaction.

The Author

Problem 1: Violence against women

Objective	**To elicit from students new ideas of solving the problem.**
Target group	B1 level
Resources	Images, PPP, templates, Moodle platform, videos
	https://problembasedlearning.milaulas.com
Time	10 hours
Interaction	Teacher - students
	Students - students
Settings	Online – Classroom
Assessment instrument	Self, peer and group assessment

Day 1

Step 1.- Orienting students to the problem

Time	30 minutes
Setting	Classroom
Resources	Images

Procedures:

1. The teacher introduces the problem using some pictures but he does not reveal the problem yet.
2. The teacher asks questions about what students see on the pictures.
3. Students convey different ideas about their background knowledge.
4. The teacher brainstorm students' ideas on the board.

Variation:

The teacher divides into causes and consequences on the board related to students' ideas. Also, once the brainstorm is done, students can guess the problem.

Step 2. Organizing students to inquiry

Time	1 hour
Setting	Classroom
Resources	Images, power point presentation

Procedure

1. Once the teacher introduces the problem, the educator reveals the real-life problem and lectures it briefly.
2. Then, the educator divides into groups of five students.
3. Students discuss the problem based on their experiences.
4. The teacher applies the pyramid discussion activity; all the members of the group participate actively.
5. The teacher monitors the discussion in class.
6. Finally, students choose a name for their group.

Clarifications:

The teacher lectures the problem in such way students can visualize the causes. It is recommendable to use data in order that students can understand it in deeply. Images must not be gory.
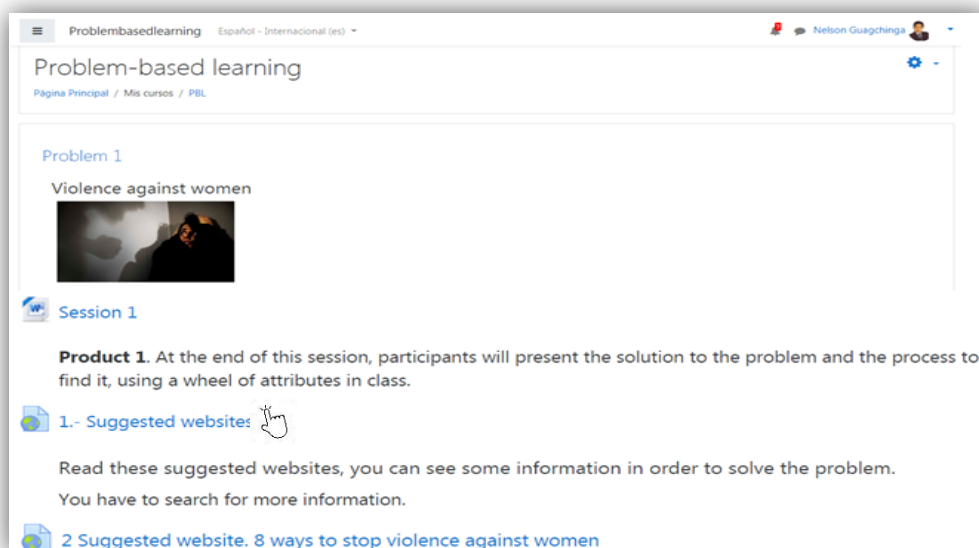
Day 2
Step 3.- Guiding the exploration.
Online research and discussion

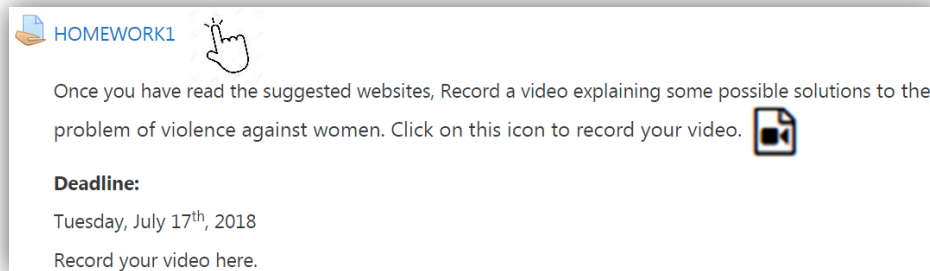| Time	2 h 30 m
Setting	Online
Resources	PBL Platform

Procedures:
1. Once the teacher has formed the groups, students must sign in the platform.
2. Students need to read some suggested webpages on it and search for more information about the problem and read it for further information.

3. Students must do their homework on the platform. This will be related to the readings.

4. Learners must record an audio to convey their ideas.

Clarifications:

Students must search for authentic information and read as much as possible to be able to propose a possible solution to the problem. They have to do their homework until deadline.

Day 3

Forum for discussion

Time	2 h
Setting	Online
Resources	PBL Platform, laptop or smartphone

Procedure:

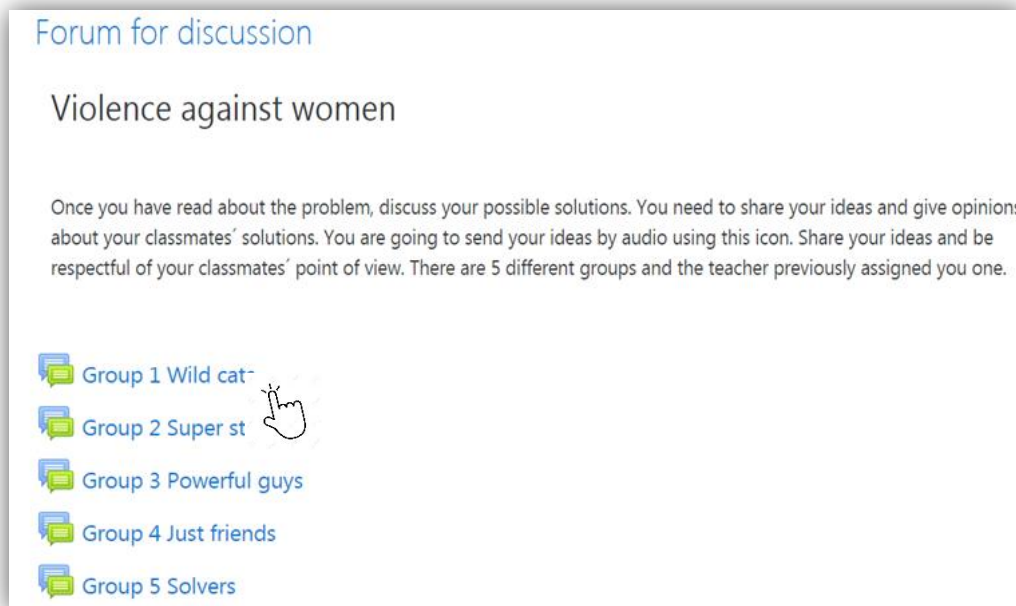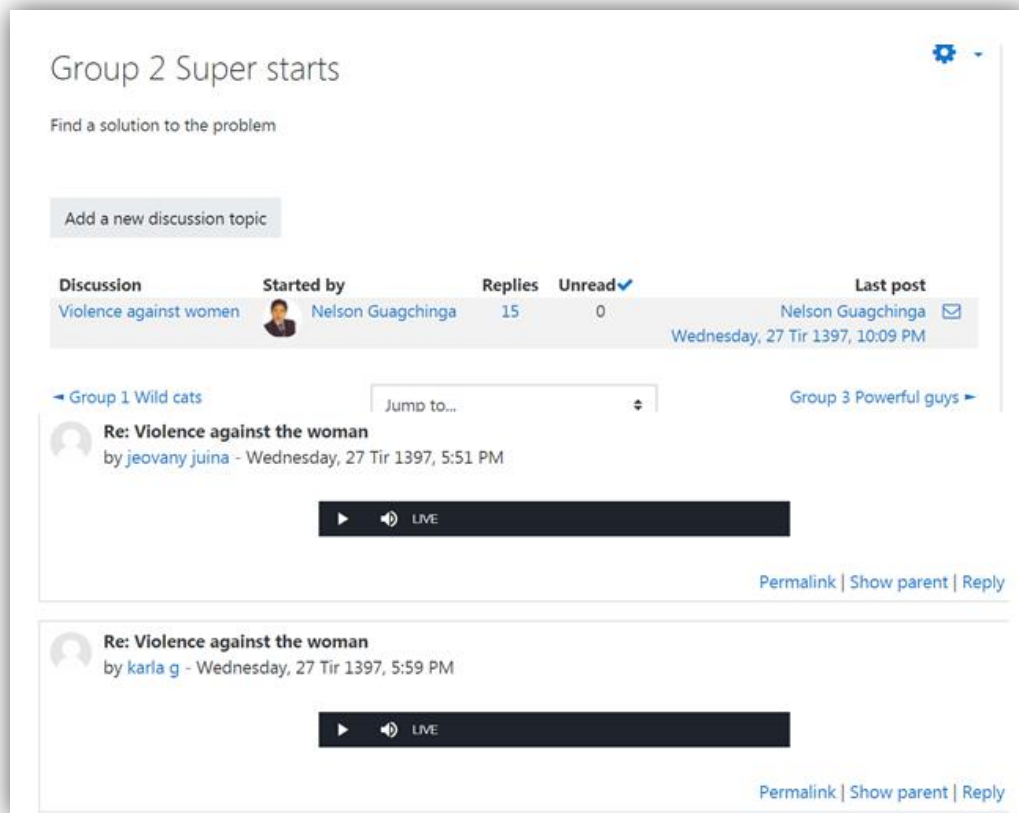1. Once students have read and searched for more information; they share some findings to solve the problem using the online forum.
2. Students sent their solutions by audio using a microphone. They must discuss the possible solutions respecting classmates' points of view.
3. Then, all the participants of the group listen and give their points of view or other alternative solutions; they record their ideas and send to the group.

Forum for discussion

Violence against women

Once you have read about the problem, discuss your possible solutions. You need to share your ideas and give opinions about your classmates´ solutions. You are going to send your ideas by audio using this icon. Share your ideas and be respectful of your classmates´ point of view. There are 5 different groups and the teacher previously assigned you one.

Group 1 Wild cat
Group 2 Super st
Group 3 Powerful guys
Group 4 Just friends
Group 5 Solvers

Clarifications:

Previously, students must establish a specific schedule to discuss in the forum. Each group has an individual forum, and there is a group of chat for the whole class. The teacher monitors students' contributions during the discussion and answers some learners' questions in the group of chat. All members of each group express their possible solutions and comment about other classmates' solutions.

Day 4

Discussion in class

Time	30 min

Setting	Classroom
Setting	Classroom
Resources	Problem-solving templates

Procedure:

1. Once students have discussed the solution online; they interact inside the classroom.
2. The teacher organizes the groups and they have a final discussion.
3. The teacher applies the talking circles activity to discuss the possible solutions.
4. Students use the graphic organizer of problem-solution to organize solutions.

Clarifications:

This is an open-ended activity, so there will be more than one possible solution. All the students must participate actively and respect classmates' points of view. One of the participants in the group must complete the mind map.

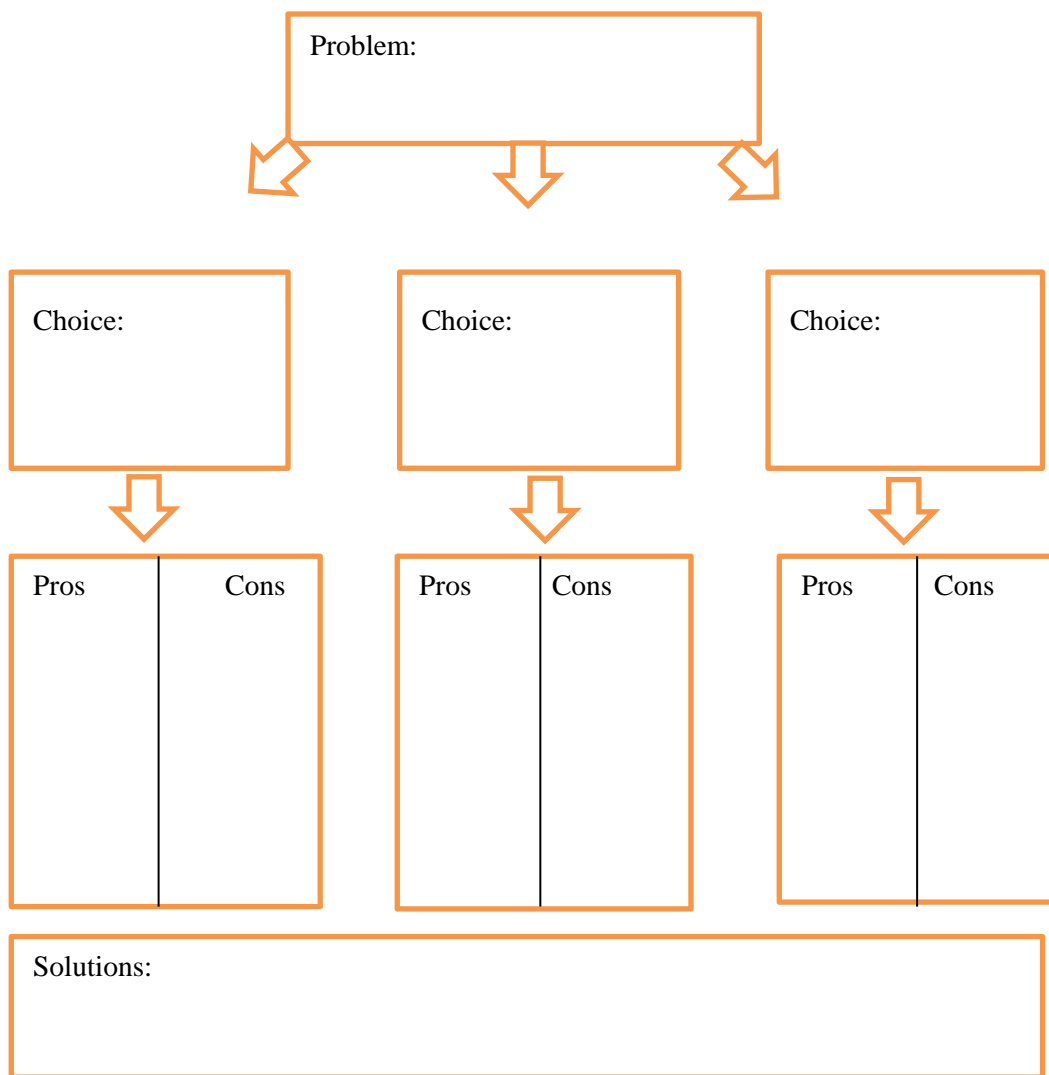*Template 1 (for students' use)*

PROBLEM-SOLVING MIND MAP 1

Name of the group:_____Class:_____

Students'names:_____

_____

Issue:_____

Problem:

Choice:	Choice:	Choice:

Pros	Cons	Pros	Cons	Pros	Cons

Solutions:

Adapted from: Problem-solving mind maps
Author: Bellanca, J. (2007)

Step 4.- Developing and presenting the solution

Time	1 h 30 min
Setting	Classroom
Resources	Sheets of cardboard, markers, problem-solving templates.

Procedure:

1. Once learners have discussed the problem online and inside the classroom; they develop and present the solution to the entire class.
2. Learners prepare the solution, they report to the entire class the process that they have applied to find the information and the solution, as well as the difficulties that they faced.
3. Learners can use images, mind maps or other visual aids to present their findings.

Clarifications:

The group decides if all the members participate or they can choose 2 or 3 students. The teacher will assess the whole group presentation stressing on their weakness and strengths.
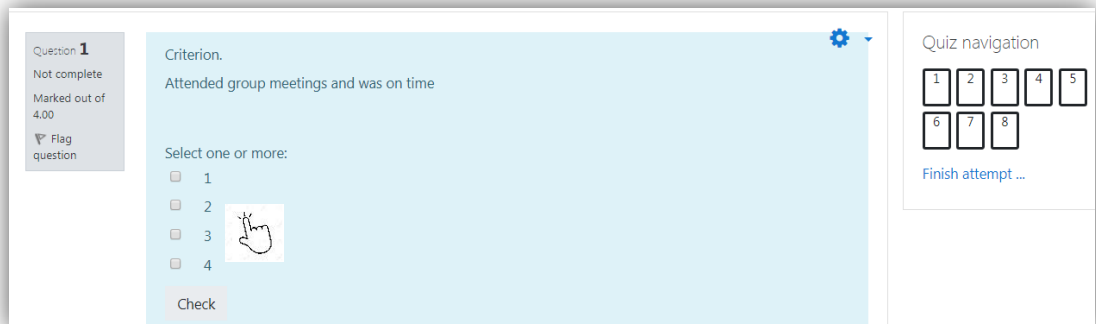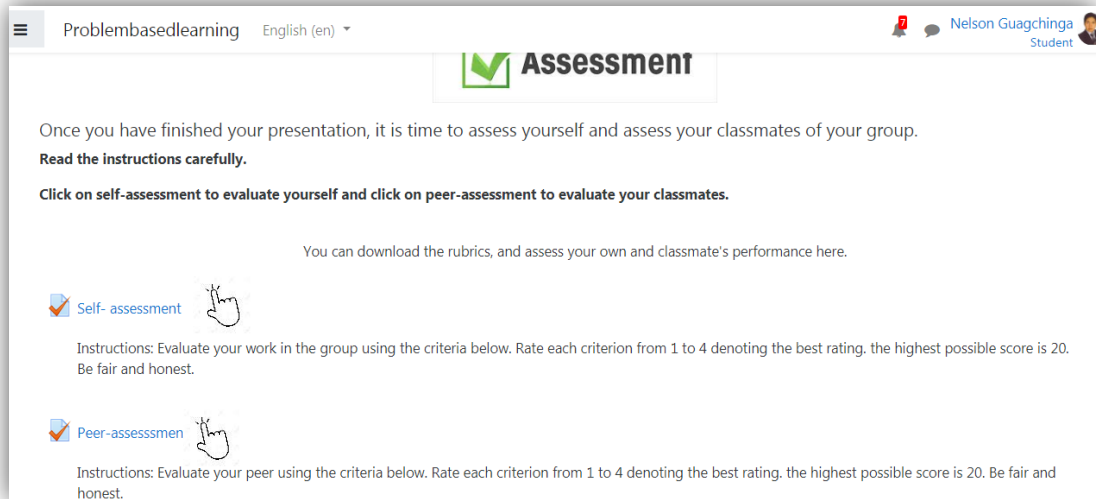
Day 5

5. Reflecting on the problem-solving process

Assessment

Time	1 hour
Setting	Online
Resources	Internet connection, rubric

Procedure:

1. Students sign in their account in the Moodle platform.

2. Learners have two different evaluations, peer and self-assessment; they need to reflect on their contributions and effort.

Clarifications:

The teacher assesses students' group presentation in the day four. Previously, the teachers had to upload the rubrics on the platform. Also, rubrics have some criteria concerning PBL elements, and learners can download them from the platform.

Problem 2: STRAY DOGS

Objective	To participate in groups in class discussions.
Target group	B1 level
Resources	PPP, templates, Moodle platform, videos https://problembasedlearning.milaulas.com
Time	10 hours
Interaction	Teacher - students Students - students
Settings	Online – Classroom
Assessment instrument	Group assessment

Day 1

Step 1.- Orienting students to the problem

Time	30 minutes
Setting	Classroom
Resources	Audios, speakers, internet connection. https://www.youtube.com/watch?v=u1PEGFNqyPk

Procedures:

1. The teacher introduces the problem using some audios of dogs' shrieking.
2. Students listen to the audio and write down some ideas on a sheet of paper.
3. The teacher collects the piece of papers and read out loud for the entire class.
4. Students express some possible solutions to the problem.

Variation:

Students can switch their sheet of papers and write two more ideas concerning dogs.

Step 2. Organizing students to inquiry

Time	1 hour
Setting	Classroom
Resources	Video: https://www.youtube.com/watch?v=9q_WAl8_xBI

Procedure:

1. The teacher reveals the real-life problem through a video concerning stray dogs.
2. The teacher applies the pyramid discussion activity.
3. Students discuss the problem based on the video.
4. The teacher monitors the discussion in class.

Further activity:

The teacher pauses to the video and convey some ideas to explain the problem in detail.

Day 2

Step 3.- Guiding the exploration.

Online research and discussion

Time	2 h 30 m
Setting	Online
Resources	PBL Platform

Procedures:

1. Once the teacher has formed the groups, students sign in the platform.
2. Students need to read some suggested webpages on it and search for more information about the problem and read it for further information.
3. Students have to read the suggested websites; students must do their homework on the platform.
4. Students record an audio mentioning three possible causes to the problem.

Further information:

Students record an audio explaining the situation of street dogs in their cities. They can explain causes and consequences.

Day 3

Forum for discussion

Time	2 h
Setting	Online
Resources	PBL Platform, laptop or smartphone

Procedure:

1. Once students have read and searched for more information; they discuss

concerning the problem using the online forum.

2. Students send their solutions by audio using a microphone. They must discuss the possible solutions respecting classmates' points of view.

3. Then, all the participants of the group listen and give their points of view or other alternative solutions; they record their ideas and send to the group.

Variation:

The teacher records two possible solutions and the group of students can express their agreement or disagreement and explain their reasons.

Day 4

Discussion in class

Time	30 min
Setting	Classroom
Resources	Cause-solution templates

Procedure:

1. Once students have discussed the solution online; the teacher applies the talking circles activity to discuss the possible solutions in class.

2. The teacher monitors learners' interaction and participation.

3. The teacher hands over the cause-solution templates to the groups.

4. Students use the graphic organizer of cause-solution to organize their ideas.
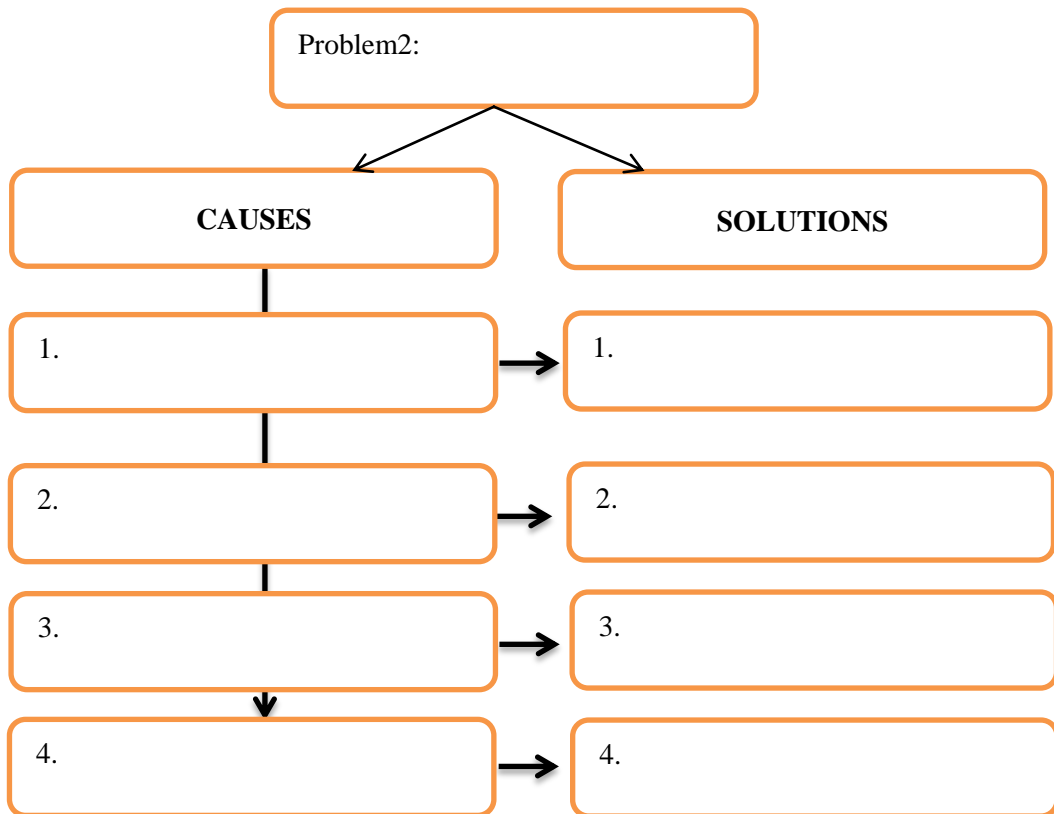
Template 2 (for students' use)

CAUSE-SOLUTION TEMPLATE 2

Name of the group: _____Class:_____

Students'names:_____

_____

Issue:_____

```
                    ┌──────────────────────────┐
                    │  Problem2:                │
                    └──────────────────────────┘
                            ╱        ╲
        ┌──────────────────────┐   ┌──────────────────────┐
        │      CAUSES          │   │     SOLUTIONS        │
        └──────────────────────┘   └──────────────────────┘
                  │
        ┌──────────────────────┐   ┌──────────────────────┐
        │  1.                  │ → │  1.                  │
        └──────────────────────┘   └──────────────────────┘
                  │
        ┌──────────────────────┐   ┌──────────────────────┐
        │  2.                  │ → │  2.                  │
        └──────────────────────┘   └──────────────────────┘
                  │
        ┌──────────────────────┐   ┌──────────────────────┐
        │  3.                  │ → │  3.                  │
        └──────────────────────┘   └──────────────────────┘
                  │
        ┌──────────────────────┐   ┌──────────────────────┐
        │  4.                  │ → │  4.                  │
        └──────────────────────┘   └──────────────────────┘
```

Adapted from: Problem-solving mind maps
Author: Bellanca, J. (2007)

Variation:

Students can talk about causes of the problem and then discuss possible solutions related to healthy, law, campaigns and government.

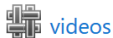**Step 4.- Developing and presenting the solution**

| Time	1 h 30 min
Setting	Online
Resources	Internet connection, smartphone, video editor program.

Procedure:

1. The teacher explains the process to share their video in the platform.
2. Students present the solution; they record a video concerning stray dogs.
3. Learners upload the video to YouTube, and copy the link on the PBL platform.
4. Students click on the icon of wiki videos to share with the entire class.
5. Then, students click on the option of edit and copy the link under the name of the group.

Product 2 Video

Once you have uploaded your video to YouTube, copy the link here. Watch the assigned video and grade it, you have to download the rubric, please.
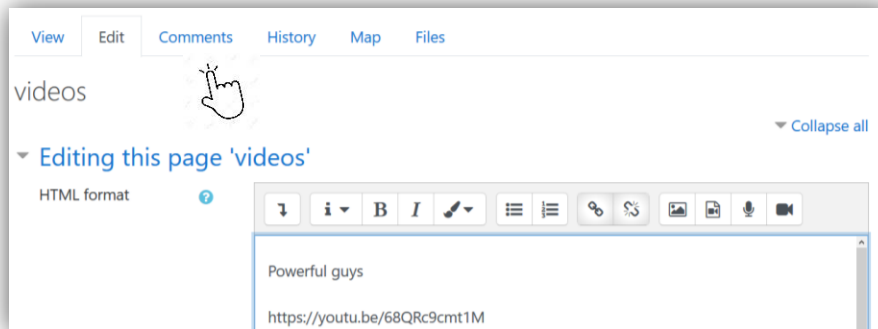
videos

Clarifications:

All members of the group must participate to develop the video. The video must be very well-recorded and students must talk clearly.

Day 5

5. Reflecting on the problem-solving process

Assessment

Time	1 hour
Setting	Online
Resources	Internet connection, rubric

Procedure:

1. The teacher assigns each group another group and a classmate to evaluate.
2. Students sign in their account in the Moodle platform.
3. Learners evaluate their classmates through peer-assessment.
4. Students click on the icon of assessment and download the rubric. For peer-assessment.
5. Finally, students assess their classmates' participation in the video and upload to the platform.

Further activity:

Groups can work together in order to talk about the weakness and strengths of the assign group for evaluation.

Problem 3: Illegal immigration

Objective	To interact expressing opinions, agreements and disagreements
Target group	B1 level
Resources	PPP, templates, Moodle platform, videos https://problembasedlearning.milaulas.com
Time	10 hours
Interaction	Teacher - students Students - students
Settings	Online – Classroom
Assessment instrument	Group assessment

Day 1

Step 1.- Orienting students to the problem

Time	30 minutes
Setting	Classroom

Resources	Flashcards, platform, internet connection.

Procedures:

1. The teacher introduces the problem using some flashcards with words related to the problem such as boundaries, government, law, police, discrimination, money, opportunities, death, foreign language, etc.
2. The teacher asks students to covey ideas related to each word in an orderly fashion.
3. The teacher divides the class into groups of three
4. In groups, students share their ideas and write five more words that express illegality per group.

Variation:

The teacher can divide the class into groups of five, and then he/she provides flashcards with words related to the problem. Students can divide flashcards into two groups stressing on positive and negative aspects for the society.

Step 2. Organizing students to inquiry

Time	1 hour
Setting	Classroom – online
Resources	Reading webpage, smartphone, laptop, projector or smart board https://vittana.org/9-pros-and-cons-of-illegal-immigration

Procedure:

1. The teacher reveals the real-life problem through a reading. The link is shared to the PBL platform in the group of chat.

2. Students can read the text using their smartphones or laptops; they can copy and paste the link.
3. Once learners have read the text, they join together in their groups and convey their ideas in groups relating with the text and Venezuelans' immigration to Ecuador.
4. The teacher applies the talking circle activity to maintain an active participation and monitors the discussion in class.

Variation:

Students underline in the reading the most important disadvantages of the problem. Then, they identify the influence of immigration in the society; they can convey their ideas in front of the class one or two students per group.

Day 2
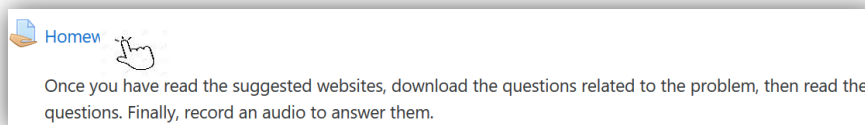
Step 3.- Guiding the exploration.

Online research and discussion

Time	2 h 30 m
Setting	Online
Resources	PBL Platform, internet connection
	https://speedypaper.com/essays/the-best-solutions-to-illegal-immigration
	https://opinionfront.com/reasons-for-illegal-immigration

Procedures:

1. Once the teacher has formed the groups, students sign in the platform.
2. Students need to read some suggested webpages on it and search for more information about the problem and read it for further information.
3. Students have read the suggested websites; students do their homework on the platform.

4. Students download the document with three questions concerning the problem from the platform. Finally, they record their answers on the platform.

📄 Homew
Once you have read the suggested websites, download the questions related to the problem, then read the questions. Finally, record an audio to answer them.

Variation:

Students record an audio explaining advantages and disadvantages of illegal immigration and their impact on the economy of countries.

Day 3

Forum for discussion

Time	2 h
Setting	Online
Resources	PBL Platform, laptop or smartphone, internet connection

Procedure:

1. Once students have read and searched for more information; they discuss concerning the problem using the online forum.
2. Students send their solutions by audio using a microphone. They must discuss the possible solutions respecting classmates' points of view.
3. Then, all the participants of the group listen and express their points of view or other alternative solutions; they record their ideas and send to the forum.

Further activity:

Students create two articles to include in the Universal Declaration of Human Rights as solutions. Then, they record their ideas in the forum and their classmates record their agreement or disagreement and explain their reasons.

Day 4

Discussion in class

Time	30 min
Setting	Classroom
Resources	Cause-solution templates

Procedure:

1. Once students have discussed the solution online; the teacher applies the talking circles activity to discuss the possible solutions in class.
2. The teacher monitors learners' interaction and participation.
3. The teacher provides students with problem-solving templates to the groups.
4. Students use the graphic organizer of problem-solving to organize their ideas.
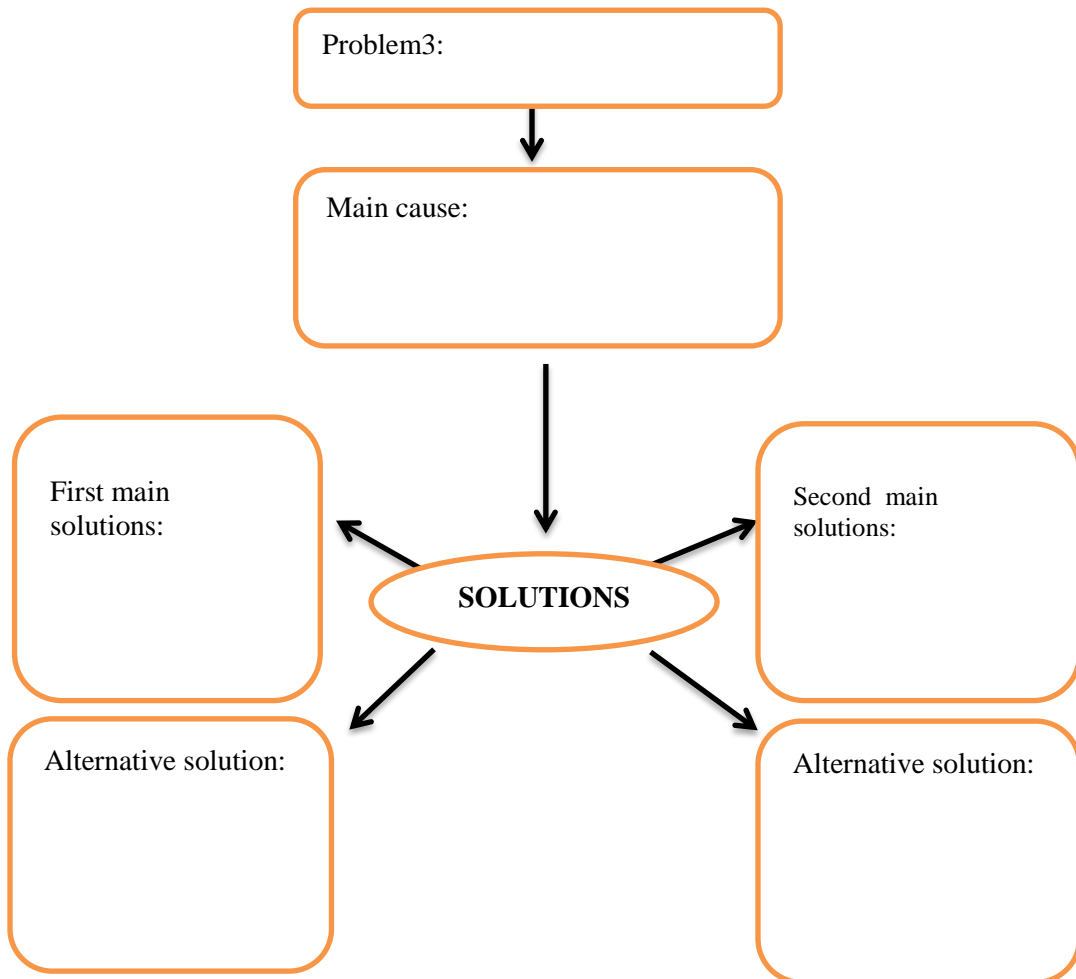
Template 3 (for students' use)

CAUSE-SOLUTION TEMPLATE 3

Name of the group:_____Class:_____

Students'names:_____

_____

Issue:_____

```
┌─────────────────────────┐
│ Problem3:               │
└─────────────────────────┘
              │
              ▼
┌─────────────────────────┐
│ Main cause:             │
│                         │
│                         │
└─────────────────────────┘
              │
              ▼
```

First main solutions:

Second main solutions:

SOLUTIONS

Alternative solution:

Alternative solution:

Adapted from: Problem-solving mind maps
Author: Bellanca, J. (2007)

Step 4.- Developing and presenting the solution

Time	1 h 30 min
Setting	Classroom
Resources	Pictures, glue, scissors, markers, magazines

Procedure:

1. Learners prepare the solution, they report to the entire class the process that they applied to find the information and the solution, as well as the difficulties.
2. They make a collage and present it in class.
3. Each group uses the pictures in the collage to explain the possible solutions.

Clarifications:

All the member of the group must make the collage. Two or three members can explain the collage.

Day 5

5. Reflecting on the problem-solving process

Assessment

Time	1 hour
Setting	Online
Resources	Internet connection, rubric

Procedure:

1. Students sign in their account in the Moodle platform.
2. Learners have two different evaluations, peer and self-assessment; they need to reflect on their contributions and effort.

Clarifications:

The teacher assesses students' group presentation in the day four in class. Student must be honest at the moment of assessing.

Problem 4: Violence in the media

Objective	To exchange information concerning the problem. .
Target group	B1 level
Resources	PPP, templates, Moodle platform, videos https://problembasedlearning.milaulas.com
Time	10 hours
Interaction	Teacher - students Students - students
Settings	Online – Classroom
Assessment instrument	Group assessment, peer and self-assessment

Day 1

Step 1.- Orienting students to the problem

Time	30 minutes
Setting	Classroom
Resources	Markers, balloons.

Procedures:

1. The teacher introduces the problem using some balloons. She/he writes the word violence on the board.
2. The teacher blows five balloons and throws them to students; they have to write a word related to violence as soon as possible.
3. Then, after ten minutes, five students read the words on the balloon, and the teacher writes them on the board.

Step 2. Organizing students to inquiry

Time	1 hour
Setting	Classroom
Resources	Video: https://www.youtube.com/watch?v=6uDm5IqKMOA

Procedure:

1. The teacher reveals the real-life problem through a video concerning violence in the media.
2. The teacher applies the pyramid discussion activity until form a group of ten students.
3. Then, students join together according to the name of the groups.
4. Students discuss the problem based on the video.
5. The teacher monitors the discussion in class.

Further activity:

Students convey their ideas based on programs that they usually watch on TV or social networks.
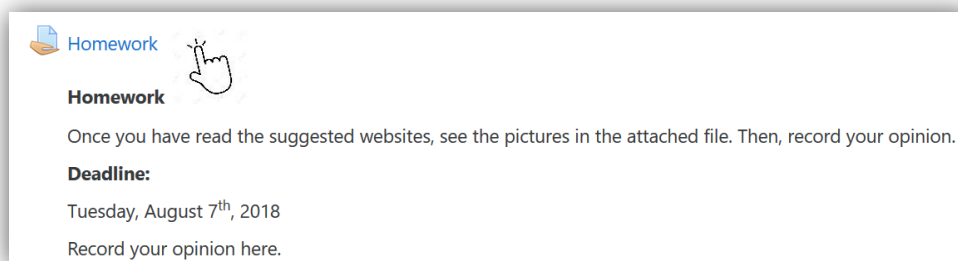
Day 2

Step 3.- Guiding the exploration.

Online research and discussion

Time	2 h 30 m
Setting	Online
Resources	PBL Platform, laptop, smartphone. http://www.medialit.org/reading-room/what-parents-can-do-about-media-violence https://www.apa.org/action/resources/research-in-action/protect.aspx

Procedures:

1. Students sign in the platform.
2. Students need to read some suggested webpages on it and search for more information about the problem and read it for further information.
3. Once students have read the suggested websites, students do their homework on the platform.
4. Students click on the icon of homework to see the pictures, and download the document.
5. Finally, students record their opinions and insights of the pictures.

Homework

Homework

Once you have read the suggested websites, see the pictures in the attached file. Then, record your opinion.

Deadline:

Tuesday, August 7th, 2018

Record your opinion here.

Variation:

Students record an audio as homework, explaining why people like watching violent TV programs rather than educational programs.

Day 3

Forum for discussion

Time	2 h
Setting	Online
Resources	PBL Platform, laptop or smartphone

Procedure:

1. Once students have read and searched for more information; they discuss concerning the problem using the online forum.
2. Students send their solutions by audio using a microphone. They must discuss the possible solutions respecting classmates' points of view.
3. Then, all the participants of the group listen and give their points of view or other alternative solutions; they record their ideas and send to the group.

Further activity:

Students discuss the problem; they combine the causes with the effects on children and solutions to avoid violence in the media.

Day 4

Discussion in class

Time	30 min
Setting	Classroom
Resources	Cause-solution templates

Procedure:

1. Once students have discussed the solution online; the teacher applies the talking circles activity to discuss the possible solutions in class.
2. The teacher monitors learners' interaction and participation.
3. The teacher hands over the cause-effect and solution templates to the groups.
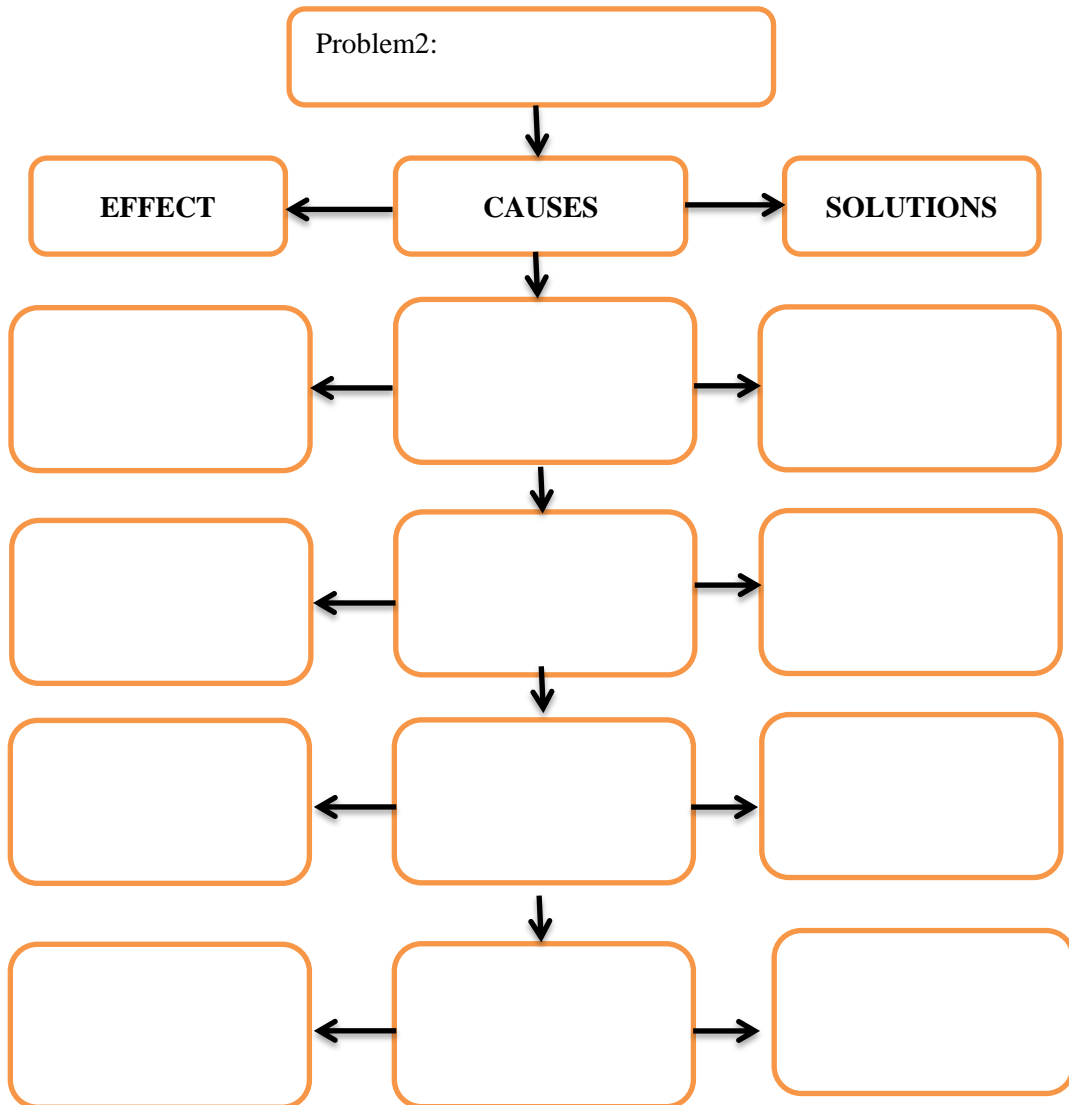4. Students go deeply into detail on the problem.

Template 4 (for students' use)

CAUSE-EFFECT AND SOLUTION TEMPLATES 4

Name of the group:_____Class:_____

Students'names:_____

Issue:_____

Problem2:

EFFECT ← CAUSES → SOLUTIONS

Adapted from: Problem-solving mind maps

Author: Bellanca, J. (2007)

Further activity:

Students discuss the advantages and disadvantages of each solution in order to choose the best solution.

Step 4.- Developing and presenting the solution

Time	1 h 30 min
Setting	Online
Resources	Internet connection, smartphone, video editor program.

Procedure:

1. The teacher explains that the process to share their video in the platform is the following: students upload the video to YouTube, and copy the link in the PBL platform.
2. Students present the solution; they record a video concerning violence in the media.
3. Learners upload the video to YouTube, and copy the link on the PBL platform.
4. Students click on the icon of wiki videos to share with the entire class.
5. Then, students click on the option of edit and copy the link under the name of the group.

Product 2 Video

Once you have uploaded your video to YouTube, copy the link here. Watch the assigned video and grade it, you have to download the rubric, please.

videos

View   Edit   Comments   History   Map   Files

videos

▼ Collapse all

▼ Editing this page 'videos'

HTML format

Powerful guys

https://youtu.be/68QRc9cmt1M

Day 5

5. Reflecting on the problem-solving process

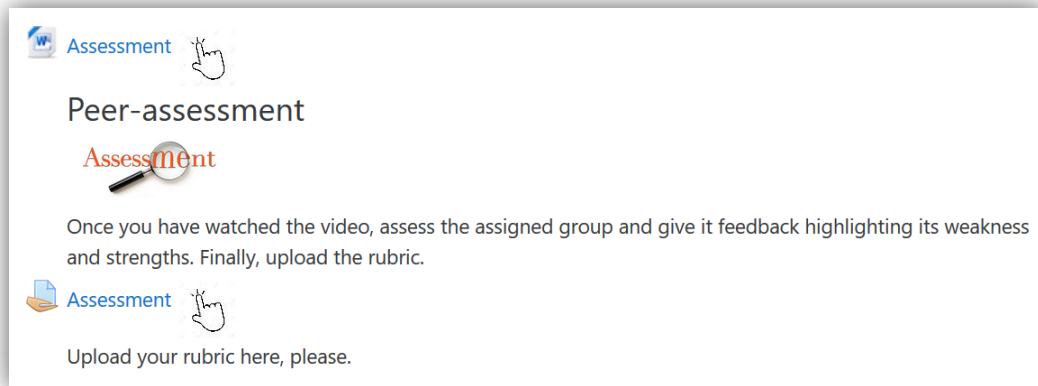**Assessment**

Time	1 hour
Setting	Online
Resources	Internet connection, rubric

Procedure:

1. The teacher assigns each group another group and a classmate to evaluate.
2. Students sign in their account in the Moodle platform.
3. Learners evaluate their classmates using peer-assessment.
4. Students click the icon of assessment and download the rubric for peer-

assessment.

5. Finally, students assess their classmates' participation in the video and upload to the platform.

Further activity:

Groups share their video on the social networks such as Facebook, and after 2 days, the group with more likes win a prize.

Problem 5: Unemployment

Objective	To convey ideas fluently in class and online discussions.
Target group	B1 level
Resources	Images, PPP, templates, Moodle platform.
	https://problembasedlearning.milaulas.com
Time	10 hours
Interaction	Teacher - students
	Students - students
Settings	Online – Classroom
Assessment instrument	Self, peer and group assessment

Day 1

Step 1.- Orienting students to the problem

Time	30 minutes
Setting	Classroom
Resources	Images

Procedures:

1. The teacher introduces the problem using some pictures but he does not reveal the problem yet.
2. Students write on the board their ideas about their background knowledge.
3. The teacher divides students' ideas into two groups, causes and effects.

Variation:

The teacher provides students some ideas before showing the pictures. Students try to guess the hidden image.

Step 2. Organizing students to inquiry

Time	1 hour
Setting	Classroom
Resources	

Procedure

1. The teacher divides the class into groups of three students.
2. The teacher asks groups to jot down a brief description of their future. He/she

explains to students that they have 5 or 8 minutes. Description should cover: future job, salary, family, possessions, and education.

3. Each group selects a representative who should stand in turn and read the group's description to the class.

4. Then, the groups discuss some problems that people face when they look for work.

5. Finally, students discuss the problem of unemployment and the influence on crime and drugs.

Variation:

The teacher lectures the problem based on causes and consequences. It is recommendable to use data in order that students can understand it in deeply.

Day 2

Step 3.- Guiding the exploration.

Online research and discussion

Time	2 h 30 m
Setting	Online
Resources	PBL Platform, websites, problem-solving template. https://www.importantindia.com/23987/unemployment-meaning-causes-effectsand-solutions/ http://www.economicsdiscussion.net/articles/suggestions-to-solve-unemployment-problem/2287

Procedures:

1. Once the teacher has formed the groups, students must sign in the platform.

2. Students need to read some suggested webpages on it and search for more information about the problem and read it for further information.

3. Learners must do their homework on the platform. This will be related to the readings.

4. Students develop a problem-solving mind map. Finally, they record an audio explaining it.

Clarifications:

Students must search for authentic information and read as much as possible to be able to propose a possible solution to the problem. They have to do their homework till deadline.

Day 3

Forum for discussion

Time	2 h
Setting	Online
Resources	PBL Platform, laptop or smartphone

Procedure:

1. Once students have read and searched for more information; they share some findings to solve the problem using the online forum.

2. Students send their solutions by audio using a microphone. They must discuss the possible solutions respecting classmates' points of view.

3. Then, all the participants of the group listen and give their points of view or other alternative solutions; they record their ideas and send to the group.

Day 4

Discussion in class

Time	30 min
Setting	Classroom
Resources	Problem-solving templates

Procedure:

1. Once students have discussed the solution online; they interact inside the classroom.
2. The teacher organizes the groups and they have a final discussion.
3. The teacher applies the talking circles activity to discuss the possible solutions.
4. Students use the graphic organizer of problem-solution to solve the problem.

Template 5 (for students' use)

PROBLEM-SOLVING MIND MAP 5

Name of the group:_____Class:_____
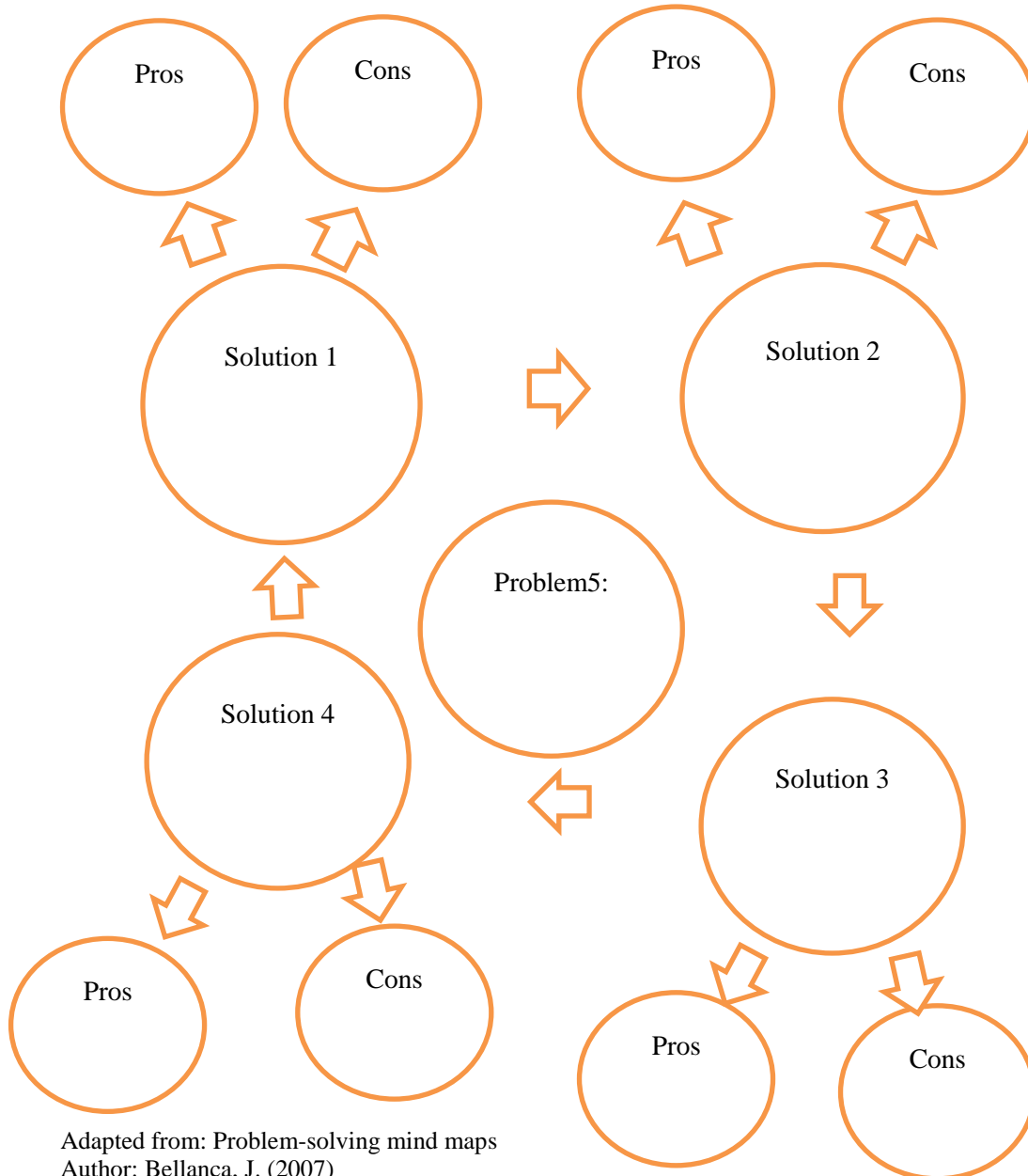
Students'names:_____Issue:_____

Pros

Cons

Pros

Cons

Solution 1

Solution 2

Problem5:

Solution 4

Solution 3

Pros

Cons

Pros

Cons

Adapted from: Problem-solving mind maps
Author: Bellanca, J. (2007)

Step 4.- Developing and presenting the solution

Time	1 h 30 min
Setting	Classroom
Resources	Sheets of cardboard, markers, problem-solving templates, images.

Procedure:

1. Once learners have discussed the problem online and inside the classroom; they develop and present the solution.
2. Learners prepare the solution, they report to the entire class the process that they have applied to find the information and the solution, as well as the difficulties that they have faced.
3. Learners elaborate a poster, they mentions pros and cons of each solution.

Clarifications:

The group decides if all the members participate or they can choose 2 or 3 students. The teacher assesses the whole group presentation stressing on their weakness and strengths.

Day 5

5. Reflecting on the problem-solving process

Assessment

Time	1 hour
Setting	Online
Resources	Internet connection, rubric

Procedure:

1. Students sign in their account in the Moodle platform.
2. Learners have two different evaluations, peer and self-assessment; they need to reflect on their contributions and effort.

Clarifications:

The teacher assesses students' group presentation in the day four. Students must assess their assign classmates. They must complete the entire online questionnaire.

Rubrics

Assessment of the whole group

Name of the group members: _____

_____

Issue:_____

Instructions: the teacher rates this presentation on the following scale:

1.- Group did not seem well prepared.

2.- Group seemed prepared but not stimulating.

3.- Group seemed well prepared, clear and stimulating.

Criterion	Rating
Issue was presented clearly.	
Issue was based on facts and data.	
Presenters appeared to be unknowledgeable about the issue.	
Presentation provided the solution or solutions to the problem.	
Presentation was interesting, innovative and creative.	
Total	

Strengths

_____

_____

Weaknesses

_____

_____

Other comments

_____

_____

Adapted from: Problems as possibilities Torp, L. & Sage, S. (2002)
Author: Guagchinga, N. (2018)
Problem: Violence against women

Peer-assessment

Evaluator´s name: _____

Assign classmate's name: _____

Instructions: Evaluate your peer using the criteria below. Rate each criterion from 1 to 4 denoting the best rating. The highest possible score is 20. Be fair and honest.

Criterion	Rating
Attended group meetings and was on time.	
Accepted a fair share of responsibility for the work.	
Helped others when appropriate.	
Contributed to the overall group plan.	
Completed assigned tasks on time.	
Helped others when appropriate	
Total	

What percentage of the work did this person complete?

_____

_____

_____

What was this person´s most significant contribution?

_____

_____

Other comments

_____

_____

_____

Adapted from: Problems as possibilities Torp, L. & Sage, S. (2002)
Author: Guagchinga, N. (2018)
Problem: Violence against women

Self-assessment

Name:_____

Instructions: Evaluate your work using the criteria below. Rate each criterion from 1 to 4 denoting the best rating. The highest possible score is 20. Be fair and honest.

Criterion	Rating
Attended group meetings and was on time.	
Accepted a fair share of responsibility for the work.	
Helped others when appropriate.	
Contributed to the overall group plan.	
Completed assigned tasks on time.	
Helped others when appropriate	

What percentage of the work did you complete?

_____

_____

_____

What was your most significant contribution?

_____

_____

_____

Other comments

_____

_____

_____

Adapted from: Problems as possibilities Torp, L. & Sage, S. (2002)
Author: Guagchinga, N. (2018)
Problem: Violence against women

PROBLEM-BASED LEARNING COURSE

Syllabus

English language B1

PROGRAMA DE APRENDIZAJE DE IDIOMA EXTRANJERO - INGLÉS

Year:

2018

1.- General information

Faculty:	Language Center
Instructor:	Lic. Nelson Wilfrido Guagchinga Chicaiza.
Phone:	0983451421
E-mail:	nelson.guagchinga5@utc.edu.ec
Academic period:	April-August 2018
Language:	English
Class:	B1 level M
Office hours:	8:00 am to 5:00 pm Friday
Hours:	50 hours

2.- Prerequisites

Prerequisites: A1 and A2 level grammar structures and vocabulary. Students need to be independent users of the language, i.e. those who have the necessary fluency to convey their ideas. Students need to understand the main points of clear texts and produce simple and coherent texts about topics with which they are familiar.

3.- Course overview

This PBL course is a student-centered approach in which students develop problem-solving skills; they work in groups in class and online using the Moodle platform. Hence, this course is called blending Problem-Based Learning. Students solve real-life and opened-ended problems. The teacher monitors students' performance and encourages them to maintain an active participation. In addition, because of participants deal with oral interaction in groups and oral report presentations, learners will improve their fluency which is a sub-skill in speaking.

This course is divided into five stages adapted from Karyuatry (2014) which will be developed inside and outside the classroom. The teacher becomes a couch rather than a provider of knowledge, and students become self-directed. Also, the PBL class is divided into four sessions that are developed inside the classroom and online.

4. - COURSE OBJECTIVES:

At the end of this course, students will be able to

- ❖ Discuss real-life problems in a blended learning environment.
- ❖ Debate real-life problems in groups.
- ❖ Solve different open-ended problems.

5. - CONTENT

REAL-LIFE AND OPEN-ENDED PROBLEMS	SESSION
VIOLENCE AGAINST WOMEN	1
STRAY DOGS	2
ILLEGAL IMMIGRATION	3
VIOLENCE IN THE MEDIA	4
UNEMPLOYMENT	5

6. - LEARNING OUTCOMES

At the end of the 5 sessions, students will be able to

- ❖ Exchange opinions related to real-life problems in a blended learning environment.
- ❖ Participate expressing agreements and disagreements in groups.
- ❖ Identify different solutions for open-ended problems.

7. - METHODOLOGY

Participants will actively engage in different learning activities through this course. A variety of teachings – learning activities have been designed. This course will be applied the Problem-Based Learning approach, is divided into five stages adapted from Karyuatry (2014) and will develop two main activities such as pyramid discussion and talking circles.

Participants will use the Moodle platform. They will read and cover the reading materials and search for other useful information, regarding the five problems; also they will participate in discussion forums. All these activities are relevant and effective components of the learning process.

8.- MATERIALS

FOR THE INSTRUCTOR	FOR THE PARTICIPANTS
Laptop	Laptop
Smartboard	Headphones
Reading resources	Folder
Flashcards	Reading resources
Headphones	Printing material
	Internet access

7.- Evaluation

CRITERIA	PERCENTAGE
Reading assignments	20 %
Forum discussion	25%
Discussion in class	25%
Dossier	5%
Oral presentation activities	25%
	100

8.- Bibliography

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9.- Schedule

	SESSION ONE		
	From Monday, July 16th to 20th, 2018		
	CONTENT AND ACTIVITIES	**ASSIGNMENTS**	**TIME**
Day 1 Monday, 16th	**IN CLASS** **The teacher introduces the PBL course** **Syllabus presentation.** **Problem 1** **Violence against women** **Step 1.** The teacher introduces the problem using slides. **Step 2.** ✓ The teacher reveals the real-life problem and lectures it.	**ONLINE MILAULAS / PBL PLATFORM** **Day 2** **Step 3.-** Read the **suggested websites** and searching for more information to find a solution to the problem. **Homework** Record a video explaining some possible solutions to the problem. **Deadline:**	**2 hours** **3 hours** (Auton omous)

		Tuesday, July 17th, 2018 Record the video on the platform.	
Day 3 Wednesday, 18th	**ONLINE** **PBL** **Platform** **Step 3.1** Forum discussions concerning violence against women. Participants discuss the problem; they record possible solutions and send the audios to the forum respecting the assigned groups.		**2 hours**
Day 4 Thursday, 19th	**IN CLASS** **Step.-3.2** Final discussion, participants brainstorm possible solutions in groups. The teacher gives a problem-solving template to the groups. **Step 4** Participants present the solution to the problem using a **poster**.		**2 hours**
Day 5	**ONLINE**		**1 hour**

Friday, 20th	Participants reflect on their contributions and effort. **Peer and self-assessment.**		
		Total	**10 hours**

	SESSION TWO From Monday, July 23rd to 27th, 2018		
	CONTENT AND ACTIVITIES	**ASSIGNMENTS**	**TIME**
Day 1 Monday, 23rd	**IN CLASS** **Problem 2** **STRAY DOGS** **Step 1.** The teacher introduces the problem using images. **Step 2.** ✓ The teacher reveals the real-life problem through a video concerning stray dogs. ✓ https://www.youtube.com/watch?v=9q_WAl8_xBI ✓ Opinions per group.	**ONLINE** **MILAULAS / PBL PLATFORM** **Day 2** **Step 3.-** Read the **suggested websites** and searching for more information to find a solution to the problem. **Homework** Record an audio and mention three possible causes of the problem and explain them. **Deadline:** Tuesday, July 24th, 2018 Record your audio on the	**2 hours** **3 hours** (Autonomous)

	(Pyramid discussion)	platform.	
Day 3 Wednesday, 25th	**ONLINE** **PBL** **Platform** **Step 3.1** Forum discussions about stray dogs. Participants discuss the problem; they record possible solutions and send the audios to the forum respecting the assigned groups.		**2 hours**
Day 4 Thursday, 26th	**IN CLASS** **Step.-3.2** Final discussion, participants brainstorm possible solutions in groups. The teacher gives a problem-solving template to the groups. **ONLINE** **Step 4** Participants present the solution and the process to find it; they **record** a video concerning stray dogs, upload it to YouTube, and copy the link in the PBL		**1 hour** **1 hour** (Auton omous)

	platform.		
Day 5 Friday, 27th	**ONLINE** **Peer-assessment** Assess another group and give them feedback.		**1 hour**
		Total	**10 hours**

	SESSION THREE From Monday, July 30th to August 3rd, 2018		
	CONTENT AND ACTIVITIES	**ASSIGNMENTS**	**TIME**
Day 1 Monday, 30th	**IN CLASS** **Problem 3** **Illegal immigration** **Step 1.** The teacher **i**ntroduces the problem using flashcards. **Step 2.** ✓ The teacher reveals the real-life problem through a **reading**. ✓ https://vittana.org/9-	**ONLINE** **MILAULAS / PBL PLATFORM** **Day 2** **Step 3. -** Read the **suggested websites** and searching for more information to find a solution to the problem. **Homework** Record a video answering	**2 hours** **3 hours** (Auton omous)

	pros-and-cons-of-illegal-immigration ✓ Participants share ideas in groups concerning Venezuelans' immigration to Ecuador (talking circles).	two questions related to the problem. **Deadline:** Tuesday, July 31st , 2018 Record the answers on the platform.	
Day 3 Wednesday, 1st	**ONLINE** **PBL** **Platform** **Step 3.1** Forum discussions concerning illegal immigration. Participants discuss the problem; they record possible solutions and send the audios to the forum respecting the assigned groups.		**2 hours**
Day 4 Thursday, 2nd	**IN CLASS** **Step.-3.2** Final discussion, participants brainstorm possible solutions in groups. The teacher gives a problem-solving template to		**2 hours**

	the groups. **IN CLASS** **Step 4** Participants present the solution and the process to find it; they make a collage and present it in class.		
Day 5 Friday, 4th	**ONLINE** Participants reflect on their contributions and effort. **Peer and self-assessment.**		1 hour
		Total	**10 hours**

	SESSION FOUR		
	From Monday, August 6nd to 10th, 2018		
	CONTENT AND ACTIVITIES	**ASSIGNMENTS**	**TIME**
Day 1 Monday, 6nd	**IN CLASS** **Problem 4** **VIOLENCE IN THE MEDIA** **Step 1.** The teacher **i**ntroduces the problem	**ONLINE** **MILAULAS / PBL PLATFORM** **Day 2** **Step 3. -** Read the **suggested websites** and	2 hours 3 hours (Autono mous)

	using slides. **Step 2.** ✓ The teacher reveals the real-life problem through a **video**. https://www.youtube.com/watch?v=6uDm5IqKMOA The participants work in groups and share ideas. (Pyramid discussion)	searching for more information to find a solution to the problem. **Homework** See the pictures in the platform and record your opinion about them. **Deadline:** Tuesday, August 7th, 2018 Record your opinion on the platform.	
Day 3 Wednesday, 8th	**ONLINE** **PBL** **Platform** **Step 3.1** Forum discussions concerning violence in the media. Participants discuss the problem; they record possible solutions and send the audios to the forum respecting the assigned groups.		**2 hours**
Day 4 Thursday, 9th	**IN CLASS** **Step.-3.2** Final discussion, participants brainstorm possible solutions in groups.		**2 hours**

	CONTENT AND ACTIVITIES	ASSIGNMENTS	TIME
	The teacher gives a problem-solving template to the groups. **ONLINE** **Step 4** Participants present the solution and the process to find it. Participants **record** a video concerning violence in the media, upload it to YouTube, and copy the link in the PBL platform.		
Day 5 Friday, 10th	**ONLINE** **Peer-assessment** Assess another group and give them feedback.		1 hour
		Total	10 hours
	SESSION FIVE From Monday, August 13th to 17th, 2018		
	CONTENT AND ACTIVITIES	**ASSIGNMENTS**	**TIME**
Day 1 Monday, 13th	**IN CLASS** **Problem 5** **UNEMPLOYMENT** **Step 1.** The teacher introduces the problem using images. **Step 2.**	**ONLINE** **MILAULAS / PBL PLATFORM** **Day 2** **Step 3.** Read the **suggested websites** and searching for more information to find a	2 hours 3 hours (Autono mous)

61

	✓ The teacher reveals the real-life problem and lectures it. ✓ In groups, the participants share some ideas, and then write them on a piece of paper and switch with another group. (Talking circles)	solution to the problem. **Homework** Develop a problem-solving mind map and record an audio explaining it. **Deadline:** Tuesday, August 17th, 2018 Record the audio on the platform.	
Day 3 Wednesday, 18th	**ONLINE** **PBL** **Platform** **Step 3.1** Forum discussions about unemployment. Final discussion, participants brainstorm possible solutions in groups. Participants discuss the problem; they record possible solutions and send the audios to the forum respecting the assigned groups.		**2 hours**
Day 4 Thursday, 19th	**IN CLASS** **Step.-3.2** Final discussion,		**2 hours**

	participants brainstorm possible solutions in groups. The teacher gives a problem-solving template to the groups. **Step 4** Participants present the solution and the process to find it using a **poster** with a problem-solving mind map.		
Day 5 Friday, 20th	**ONLINE** Participants reflect on their contributions and effort. **Peer and self-assessment.**		**1 hour**
		Total	**10 hours**

Source: PBL course
Made by**:** Guagchinga, N (2018)

PLATFORM

Students have to sign in at this link to develop the activities online.

https://problembasedlearning.milaulas.com/

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ANNEXES

Annex 1.- AUTHORIZATION FOR CARRYING OUT THE PBL RESEARCH

Annex 2
Source: UTC
Created by: Guagchinga, N. (2018)

Annex 2.- SURVEY FOR TEACHERS

UNIVERSIDAD TÉCNICA DE COTOPAXI
CENTRO DE IDIOMAS

This survey is for B1 level students of English.

Objective: To analyze the influence of problem-based learning approach in the speaking skill development in English of B1 level students at Universidad Técnica de Cotopaxi.

Instructions: This is not a test, so there is no a right or wrong answer. Please read and cross out (X) your answers.

Problem-based learning (PBL)

1.- Does the teacher develop problem-solving skills (real-life problems) in order to find a solution such as violence against women, global warming, the death penalty, youth violence etc.?

a) Always (……..)   b) Sometimes (……..)   c) Never (……..)

Self-directed learning

2. - Does the teacher stimulate you to search for information concerning real-life problems by yourself?

a) Always (……..)   b) Sometimes (……..)   c) Never (……..)

Collaborative learning

3. - When you work in groups, does the teacher encourage the groups to share their ideas in English?

a) Always (……..)   b) Sometimes (……..)   c) Never (……..)

4. - When you perform problem-solving discussing in groups, do you respect your turn-taking?

a) Always (……..)   b) Sometimes (……..)   c) Never (……..)

Open-ended problem solving

5. - When you discuss real-life problems, does the teacher respect different solutions you may find for the problems?

a) Always (……..)   b) Sometimes (……..)   c) Never (……..)

Activities for PBL

6. - When you discuss real-life problems, does the teacher apply the pyramid discussion (students form progressively larger groups) or the talking circle activity (Students participates by turns and respect classmates' opinions?

a) Always (……..)   b) Sometimes (……..)   c) Never (……..)

PBL assessment

7. - When you finish a problem-solving activity in groups, does the teacher allow you assess (self-assessment) and your classmates (peer-assessment)?

a) Always (……..)   b) Sometimes (……..)   c) Never (……..)

Speaking skill

8. - When you finish a problem-solving activity, how often does the teacher give you feedback highlighting your weakness and strengths?

a) Always (……..)   b) Sometimes (……..)   c) Never (……..)

9. - When you perform problem-solving activities in groups, does the teacher promote oral interaction in English within the groups?

a) Always (……..)   b) Sometimes (……..)   c) Never (……..)

10. - When you speak English do you find it difficult to speak easily and quickly without having to stop and pause a lot (Speaking the language fluently)?

a) Always (……..)   b) Sometimes (……..)   c) Never (……..)

Assessment in Speaking

11.-. When you perform an oral presentation, does the teacher stress on grammar mistakes?

a) Always (……..)   b) Sometimes (……..)   c) Never (……..)

12. - Does the teacher apply a rubric for assessing speaking activities?

a) Always (……..)   b) Sometimes (……..)   c) Never (……..)

Problem-based learning and speaking development

13. - How often does the teacher apply the problem-based learning approach to promote oral communication in class?

a) Always (……..)   b) Sometimes (……..)   c) Never (……..)

THANK YOU FOR YOUR HELP

Annex 3.- SURVEY FOR STUDENTS

UNIVERSIDAD TÉCNICA DE COTOPAXI
CENTRO DE IDIOMAS

This survey is for B1 level teachers

Objective: To analyze the influence of problem-based learning approach in the speaking skill development in English of B1 level students at Universidad Técnica de Cotopaxi.

Instructions: This is not a test, so there is no a right or wrong answer. Please read and cross out (X) your answers.

Problem-based learning (PBL)

1.- Do you develop problem-solving skills (real-life problems) in order to find a solution such as violence against women, global warming, the death penalty, youth violence etc.?

a) Always (……..)   b) Sometimes (……..)   c) Never (……..)

Self-directed learning

2. – Do you stimulate them to search for information concerning real-life problems by themselves?

a) Always (……..)   b) Sometimes (……..)   c) Never (……..)

Collaborative learning

3. - When the students work in groups, do you encourage the groups to share their ideas in English?

a) Always (……..)   b) Sometimes (……..)   c) Never (……..)

4. - When the students perform problem-solving discussing in groups, do you respect their turn-taking?

a) Always (…….)   b) Sometimes (…….)   c) Never (…….)

Open-ended problem solving

5. - When the students discuss real-life problems, do you respect different solutions they may find for the problems?

a) Always (…….)   b) Sometimes (…….)   c) Never (…….)

Activities for PBL

6. - When the students discuss real-life problems, do you apply the pyramid discussion (students form progressively larger groups) or the talking circle activity (Students participates by turns and respect classmates' opinions?

a) Always (…….)   b) Sometimes (…….)   c) Never (…….)

PBL assessment

7. - When the students finish a problem-solving activity in groups, do you allow them to assess (self-assessment) and their classmates (peer-assessment)?

a) Always (…….)   b) Sometimes (…….)   c) Never (…….)

Speaking skill

8. - When the students finish a problem-solving activity in groups, how often do you give them feedback highlighting their weakness and strengths?

a) Always (…….)   b) Sometimes (…….)   c) Never (…….)

9. - When the students perform problem-solving activities in groups, do you promote oral interaction in English?

a) Always (…….)   b) Sometimes (…….)   c) Never (…….)

10. – When the students speak English, do they find it difficult to speak easily and quickly without having to stop and pause a lot (Speaking the language fluently)?

a) Always (……..)   b) Sometimes (……..)   c) Never (……..)

Assessment in Speaking

11.-. When the students perform an oral presentation, do you stress on grammar mistakes?

a) Always (……..)   b) Sometimes (……..)   c) Never (……..)

12. – Do you apply a rubric for assessing speaking activities?

a) Always (……..)   b) Sometimes (……..)   c) Never (……..)

Problem-based learning and speaking development

13. - How often do you apply the problem-based learning approach to promote oral communication in class?

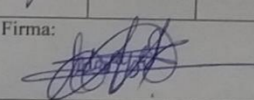a) Always (……..)   b) Sometimes (……..)   c) Never (……..)

THANK YOU FOR YOUR HELP

4.- VALIDATION FOR SURVEY QUESTIONS

UNIVERSIDAD TÉCNICA DE AMBATO
DIRECCIÓN DE POSGRADOS
MAESTRIA EN LA ENSEÑANZA DEL IDIOMA INGLÉS COMO LENGUA EXTRANJERA

Instrumento de validación (Encuesta a estudiantes y docentes)

Item	A. Correspondencia de las preguntas del instrumento con los objetivos, variables y enunciados con los objetivos		Observaciones	B. Calidad técnica y responsabilidad				Observaciones	C. Lenguaje		Observaciones
	Pertinencia (P)	No pertinencia (NP)		Optima (O)	Buena (B)	Regular (R)	Deficiente (D)		Adecuado (A)	Inadecuado (I)	
1	✓			✓					✓		
2	✓			✓					✓		
3	✓			✓					✓		
4	✓			✓					✓		
5	✓			✓					✓		
6	✓			✓					✓		
7	✓			✓					✓		
8	✓			✓					✓		
9	✓			✓					✓		
10	✓			✓					✓		
11	✓			✓					✓		
12	✓			✓					✓		
13	✓			✓					✓		

Datos del validador	Apellidos y Nombres: Yugla Lema Lidia Rebeca	N° de cedula: 050265234-0		Firma:
	Profesión: DOCENTE - MAGISTER EN CIENCIAS DE LA EDUCACIÓN	Cargo: DOCENTE DEL CENTRO DE IDIOMAS	Fecha: 10 -JUNIO -2018	Teléfono: 0984289465

Annex 4
Source: Validation instrument 1
Created by**:** Guagchinga, N. (2018)

119

UNIVERSIDAD TÉCNICA DE AMBATO
DIRECCIÓN DE POSGRADOS
MAESTRIA EN LA ENSEÑANZA DEL IDIOMA INGLÉS COMO LENGUA EXTRANJERA

Instrumento de validación (Encuesta a estudiantes y docentes)

Item	A. Correspondencia de las preguntas del instrumento con los objetivos, variables y enunciados con los objetivos		Observaciones	B. Calidad técnica y responsabilidad				Observaciones	C. Lenguaje		Observaciones
	Pertinencia (P)	No pertinencia (NP)		Optima (O)	Buena (B)	Regular (R)	Deficiente (D)		Adecuado (A)	Inadecuado (I)	
1	✓			✓					✓		
2	✓			✓					✓		
3	✓			✓					✓		
4	✓			✓					✓		
5	✓			✓					✓		
6	✓			✓					✓		
7	✓			✓					✓		
8	✓			✓					✓		
9	✓			✓					✓		
10	✓			✓					✓		
11	✓			✓					✓		
12	✓			✓					✓		
13	✓			✓					✓		

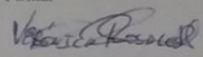| Datos del validador	Apellidos y Nombres ROSALES PIJAL VERONICA A.	N° de cedula 1003106984		Firma: Verónica Rosales
	Profesión MAGISTER EN LINGUISTICA Y DIDACTICA DE LA ENSEÑANZ DE IDIOMAS EXTRANJEROS	Cargo DOCENTE	Fecha: 2018-06-10	Teléfono: 0995242011 032801237

CANDIDATA PHD EN EDUCACIÓN

Annex 4.
Source: Validation instrument 2
Created by: Guagchinga, N. (2018)

UNIVERSIDAD TÉCNICA DE AMBATO
DIRECCIÓN DE POSGRADOS
MAESTRIA EN LA ENSEÑANZA DEL IDIOMA INGLÉS COMO LENGUA EXTRANJERA

Instrumento de validación (Encuesta a estudiantes y docentes)

Item	A. Correspondencia de las preguntas del instrumento con los objetivos, variables y enunciados con los objetivos		Observaciones	B. Calidad técnica y responsabilidad				Observaciones	C. Lenguaje		Observaciones
	Pertinencia (P)	No pertinencia (NP)		Optima (O)	Buena (B)	Regular (R)	Deficiente (D)		Adecuado (A)	Inadecuado (I)	
1	✓			✓					✓		
2	✓			✓					✓		
3	✓			✓					✓		
4	✓			✓					✓		
5	✓			✓					✓		
6	✓			✓					✓		
7	✓			✓					✓		
8	✓			✓					✓		
9	✓			✓					✓		
10	✓			✓					✓		
11	✓			✓					✓		
12	✓			✓					✓		
13	✓			✓					✓		

Datos del validador	Apellidos y Nombres Pacheco Bruno Edison Marcelo	N° de cedula 0502617350	Firma:
	Profesión Docente; Magister en Docencia Universitaria	Cargo Docente Centro de Idiomas UTC	Fecha: 10-Junio-2018	Teléfono: 0997712634

Annex 4
Source: Validation instrument 3
Created by: Guagchinga, N. (2018)

121

Annexe 5.- CAMBRIDGE UNIVERSITY PRESS SAMPLES

The research applied a pre-test and a post-test in order to know the current situation of the speaking skill in B1 level students concerning fluency. The researcher used the problem-based learning approach 5 weeks, students worked online in the Moodle platform and inside the classroom. The pre-test and post-test were based on the Preliminary English Test (PET), which is a standardized exam by Cambridge University Press (2010).

Paper 3: Speaking	**Part 1** 2–3 minutes

Phase 1
Interlocutor

[to both students]	Good morning/afternoon/evening. Can I have your mark sheets, please?
	(Students hand over the mark sheets to the Assessor.)
	I'm .... and this is .... He / She is just going to listen to us.
[to student A]	Now, what's your name?
	....
	Thank you.
[to student B]	And what's your name?
	....
	Thank you.

Back-up prompts

B	Candidate B, what's your surname? How do you spell it?	How do you write your family/second name?
	Thank you.	
A	And, Candidate A, what's your surname? How do you spell it?	How do you write your family/second name?
	Thank you.	

(Interlocutor asks the following questions. Use candidates' names throughout. Ask Candidate A first.)	
Where do you live/come from?	Do you live in …?
Do you study English at school? Do you like it?	Do you have English lessons?
Thank you.	
(Repeat for Candidate B.)	

Annex 5
Source: Preliminary English Test (PET),
Author**:** Cambridge University Press (2010).

Phase 2

Interlocutor

(Select one or more questions from the list to ask each candidate. Use candidates' names throughout. Ask Candidate B first.)

Back-up prompts

Do you enjoy studying English?

Do you like studying English?

How will you use English in the future?

What did you do during your last school holiday?

Did you do anything in your last school holiday? What?

What do you like doing when you're not at school?

Tell us about your family.

Thank you.

(Introduction to Part 2)
In the next part, you are going to talk to each other.

Annex 5
Source: Preliminary English Test (PET),
Author**:** Cambridge University Press (2010)

Paper 3: Speaking (Walking Trip) | **Part 2** 2–3 minutes

Interlocutor

[to both students]:

I'm going to describe a situation to you.

You're both going on a three-day school **walking** trip in the **countryside**. Talk together about the things you will **need**, and decide which are the most important things to **take** with you.

Here is a picture with some ideas to help you.

*[give students **Part 2 booklet**]*

I'll say that again.

You're both going on a three-day school **walking** trip in the **countryside**. Talk together about the things you will **need**, and decide which are the most important things to **take** with you.

All right? Talk together.

Candidates complete the task without intervention.

Prompt only if necessary, by repeating parts of the question.
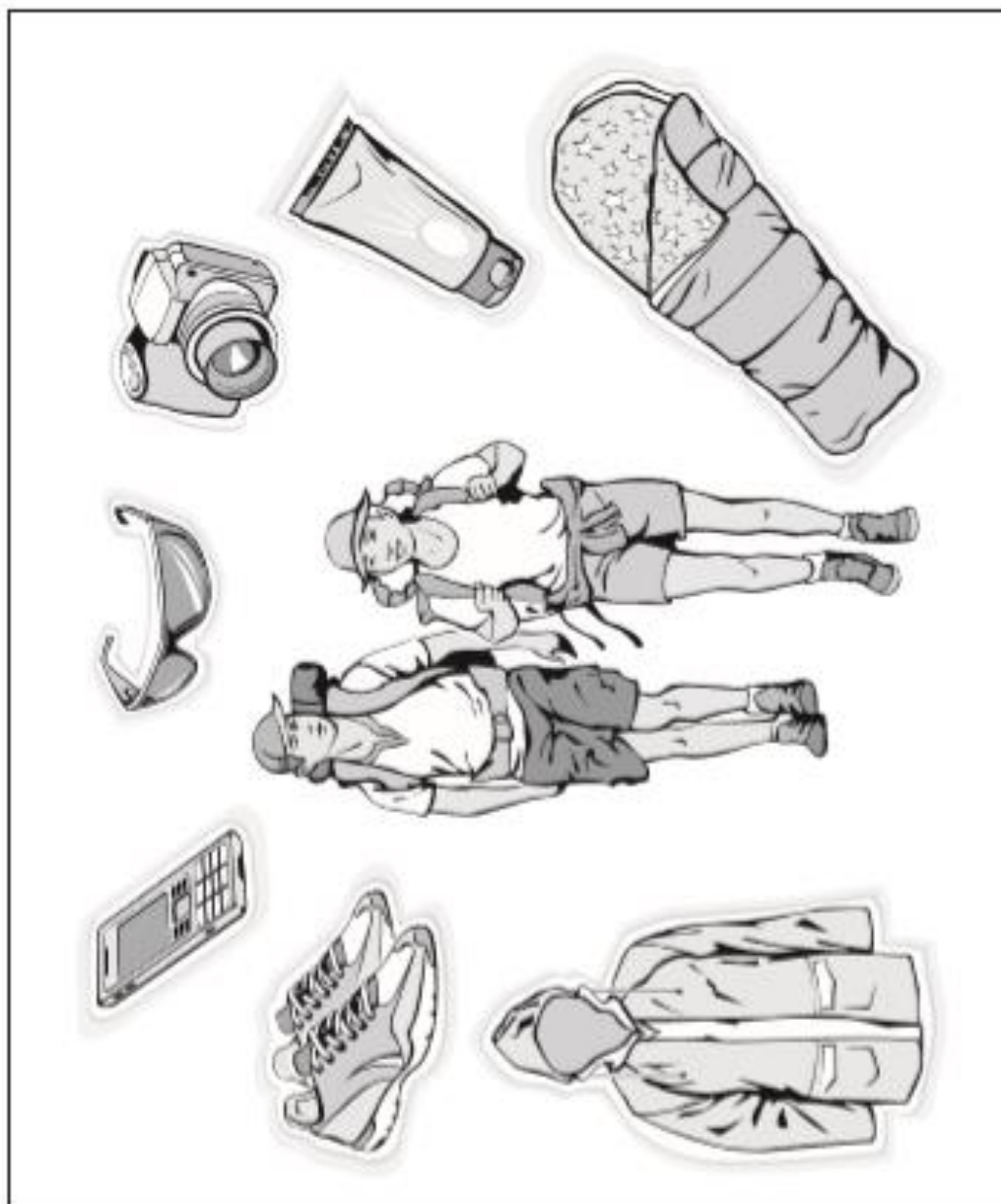
Thank you. (Can I have the booklet please?)

Retrieve Part 2 material.

Annex 5
Source: Preliminary English Test (PET),
Author: Cambridge University Press (2010)

Paper 3: Speaking (Special clothes)　　**Part 3** 3 minutes

Interlocutor

[to both students]:

> Now, I'd like each of you to talk on your own about something. I'm going to give each of you a photograph of **people wearing special clothes**.
>
> [to student A]
>
> Candidate A, here is your photograph (Task 1A). Please show it to Candidate B, but I'd like you to talk about it. Candidate B, you just listen. I'll give you your photograph in a moment.
>
> Candidate A, please tell us what you can see in your photograph.

> Thank you. [take back booklet]

> Now, Candidate B, here is your photograph (Task 1B). It also shows **someone wearing special clothes**. Please show it to Candidate A and tell us what you can see in the photograph.

> Thank you. [take back booklet]

Part 4 3 minutes

Interlocutor

[to both students]:

> Your photographs showed people wearing special clothes. Now, I'd like you to talk together about the different kinds of clothes you might wear for different occasions.

The interlocutor will allow enough time to complete the task without intervention. They may ask further questions if candidates do not fill the time available.

> Thank you. That's the end of the test.

> **Back-up prompts**
> 1　Talk about what fashions you like.
> 2　Talk about your favourite clothes.
> 3　Talk about what your perfect school uniform would be.
> 4　Talk about what colours you like to wear.

Annex 5
Source: Preliminary English Test (PET),
Author**:** Cambridge University Press (2010)

Annex 5
Source: Preliminary English Test (PET),
Author**:** Cambridge University Press (2010)

Rubric for speaking

	Range and Accuracy	Fluency and Coherence	Pronunciation	Communication Strategies
5	A wide range of grammar, lexis and cohesive devices attempted to in completing the tasks although circumlocution may be necessary. Few errors in simple sentences. Errors when attempting more complex structures and lexis do not generally hinder communication.	Some hesitation while formulating language, but can effectively maintain flow of speech. Can link ideas into clear, coherent discourse although with noticeable jumpiness in especially in extended contributions.	Pronunciation is clearly intelligible in spite of evident foreign accent. Occasional mispronunciations put some strain on the listener but rarely impede communication.	Initiates maintains and ends turns satisfactorily although not always smoothly. Uses basic repair strategies (clarification, circumlocution) where necessary. Uses appropriate register.
4				
3	Sufficient range of grammar, lexis and cohesive devices to adequately complete the tasks although circumlocution is common and avoidance strategies may be necessary. Errors, although they may be frequent even when using simple language, do not significantly hinder communication.	Keeps going comprehensibly in spite of frequent hesitation when formulating language and considerable jumpiness and reformulation during longer turns. Requires a patient listener.	Pronunciation is clearly intelligible, although mispronunciations and inability to produce certain sounds may sometimes impede communication of the message.	Attempts made to initiate maintain and end turns using basic language. Evidence of ability to use repair strategies (clarification, circumlocution) although not always applied.
2				
1	Range of grammar, lexis and cohesive devices insufficient to adequately complete the tasks. Repeated errors even in simple sentences significantly hinder communication.	Frequent hesitation and inability to link ideas coherently causes great strain on the listener.	Mispronunciations and inability to produce certain sounds significantly impedes communication of the message.	Generally, fails to initiate maintain and end turns satisfactorily. Does not use repair strategies (clarification, circumlocution).
0	Insufficient language for assessment			

Annexe 6.- URKUND REPORT

URKUND

Urkund Analysis Result

Analysed Document: CHAPTER 1 - 6 24.10.2018.docx (D42995126)
Submitted: 10/24/2018 1:23:00 PM
Submitted By: nelson.guagchinga5@utc.edu.ec
Significance: 5 %

Annex 6
Source: Urkund report
Author: Urkund. (2018)