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Title:

The development of audio-pollution awareness in Non-University Teacher Education Crash Course.

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ABSTRACT

This paper was conducted to Non-university Teacher Education Crash Course 2nd year students with the purpose of enhancing their environmental education, and to offer professional insights particularly about audio-pollution.

It presents the needs assessment carried out by means of empirical methods like the survey, discussion group and the scientific participant observation and it reveals that the subjects of research, despite the efforts and transformations taken in the environmental education, still lack knowledge, skills , habits and mainly acting ways to protect the environment from audio pollution.

This research deepens into the theoretical and methodological background on the topic and it offers outstanding global and local information regarding audio-pollution and concepts such as: environment, noise pollution, and environmental education.

The final proposal was gathered in a handbook which comprises theorethical and methodological guidelines, students' products of the activities, activities and lessons which allow for an active involvement as future educators and higher levels of awareness on environmental protection with a profession oriented role.

RÉSUMÉ

Cette recherche s'adresse aux étudiants de la deuxième année du cours Nivel Medio pour professeurs d'anglais. Le but de cette recherche est d'améliorer   l'éducation environnementale chez eux en termes de connaissance, d'habileté, des attitudes et des perspectives professionnelles, spécifiquement liée à la pollution acoustique.

Déférentes méthodes empiriques (comme l'enquête, les groupes de discussion, l'observation participante) ont été menées pour évaluer les besoins des étudiants. Les analyses des résultats ont révélé que l' l'échantillon des étudiants enquêtés avait une connaissance très limitée sur l'environnement, c'est pourquoi leurs attitudes vers l'environnement devaient être corrigées.

Les bases théoriques   et méthodologiques sur l le sujet   sont   données .Elles fournissent   des informations globales et locales remarquables sur la pollution acoustique   et des concepts tels que l'environnement, le développement durable et l'éducation environnementale.

Un manuel avec   des activités pratiques, des leçons et le résultat du travail des étudiants ainsi que une guide pédagogique est proposé afin de favoriser la participation   active des étudiants dans la protection de l'environnement et en même temps d'élever leur conscience environnementale.

INTRODUCTION

Many ways have been used to work on the development of consciousness for a sustainable world such as: educative advertisements, educative campaigns, and environmental researches, humoristic and juridicial TV programs. It is still, the peoples' education since early ages, the most long-lasting learning regarding such a sensible issue which has been considered the one that can reverse what mankind have treasured untill today.

Hence, teachers have an enormous responsibility since they are in charge of preparing the young generations to live and preserve the world heritage. Nowadays the planet is facing many environmental issues such as: deforestation, water- pollution, air-pollution, drought, soil or land pollution and audio-pollution. All of these incited by mankind, which is not completely aware about the damage provoked to the natural legacy human beings have known.

About audio-pollution there have been international and national legal regulations but they are not enough. The international organism **UNESCO** has taken some measures regarding this issue in all the human fields but more specifically in the educational system at an international level.

In Cuba some measures have been applied in the educational system, such as: changes in the curricula of different school levels providing topics about the need to preserve the environment, schools are entrusted to contribute to the creation of consciousness regarding environmental pollution and they should continue working to attain better results precisely, on audio-pollution. Still, negative manifestations can be seen, particularly in our society and it is a task for educators to change the present situation.

Audio-pollution or noise-disturbance is the disturbing or excessive noise that may harm the activity or balance of human or animal life. It is said that noise is the principal cause of deafness worldwide and also it provokes stress, headache, sleeplessness and paranoia.

Noise is all around. It is an unavoidable part of people´s daily lives and has increasingly become a major burden on the quality of life. Noise pollution is defined as a form of air pollution that is an audible unwanted sound that poses a threat to a person's health

and well-being. Noise pollution can be from simple sources such as an air-conditioner, traffic, a loud radio, human conversation, traffic, a dog barking, to more complex machinery such as large trucks and airplanes.

Noise has numerous health effects making noise pollution a public health concern, although it has not been well addressed. To name a few, these effects include elevated blood pressure, noise-induced hearing loss, sleeping disorders, and irritability. In addition, noise pollution also creates a decrease in the performance at work and school. As a 5th year Foreign Languages pre-service student at Universidad Central " Marta Abreu de Las Villas " the author of this paper beliefs, based on participant observation, document analysis and the bibliographic review done, that audio-pollution is the less researched environmental issue and yet a critical one that is increasingly affecting Cubans.

The environmental education has been part of the research lines for the students of the Foreign Language department at the university since 1992. The search for some previous research projects that might offer a solution to such problematic situation revealed that environmental education has been the object of study for plenty of specialists in the national context, for example: Abreu, 2002; Marimón, 2004; Abad, 2012; Rodríguez, 2014; Bosque, R (2014); Gutiérrez, 2014; among the most significant ones. These authors have developed their research works within the teacher education context, the education of other professionals, or the education of young learners aiming at the development of environmental values or valuable environmental behavior. However, this has corroborated that no previous research has been done about audio pollution in the Non-university Teacher Education Crash Course.

That is why the author of the present research has been deepening on the environmental education through the teaching learning process of English, particularly on the audio-pollution consciousness as one of the fields of research.

This research initiated four years ago and it covered the period 2014-2018. It has been the researcher's main concern since the 2nd year extracurricular research (2014-2015) entitled "The environmental Education: a task for the Cuban Schools", on 3rd year (2015-2016) a research designed was presented on the same topic that was developed

as a term paper in 4th year (2016-2017)It was considered a first cycle of the present action research since the diagnosed gathered and the proposal was partially implemented and intended to transform the initial problematic situation found in 6th grade students at "Ramón Pando", Elementary School and it contributed to obtain systematic feedback from students and from the self evaluation and reflections of the author of this paper.

On 5th year (2017-2018), as an assistant student of Integrated English Practice (1st term) and of English Foreign Language Methodology in Secondary Education (2nd term) for the Non-university Teacher Education Crash Course 2nd year, a surplus of information was gathered to move to the second cycle of the present research.

Through the administration of different empirical instruments such as participant observation, interview, survey and document analysis in different exchanges with the Non-university Teacher Education Crash Course 2nd year Students the author realized that, despite the fact that there is a curricular strategy devoted to this matter, the students lack knowledge about environmental issues specifically about audio pollution, they also lack attitudes to preserve the environment and so they do not act consequently.

The participant observation done by the author permited to corroborate the thesis that the students acting do not meet the necessary attitudes and actions required in this 21st century to show the levels of environmental conciousness, particularly regarding audio pollution neither inside the classroom nor outside it. The subjects under this study use very loud speakers to listen to music at their university residence building and also in the nearby neighbourhood where they stay, and when they do not have loud speakers they use headphones with loud music. There is also a tendency to speak loudly and sometimes they scream at each other as a way of communication. While being in the classroom teachers have to speak very loud to have their attention because they can not listen to what he/she is saying due to some extent, by the outside noise produced by different means of transportation in the highway across from the university campus or in some other occasions by the noise produced by the students themselves, showing lack of awareness about the damage they are producing to themselves and to the environment.

Taking into account the problematic situation previously described regarding the development of environmental consciousness in the Non-university Teacher Education Crash Course 2nd year Students through English lessons, the following **scientific problem** was derived: How to contribute to the development of audio-pollution consciousness in the Non-university Teacher Education Crash Course 2nd year Students?

Object of Research: Environmental education in the Non-university Teacher Education Crash Course 2nd year Students at "Felix Varela" Pedagogical Campus.

Field of Action: The development of audio-pollution consciousness in the Non-university Teacher Education Crash Course 2nd year Students at "Felix Varela" Pedagogical Campus.

Objective: To build up a scientific result to contribute to the development of audio-pollution consciousness in the Non-university Teacher Education Crash Course 2nd year Students at "Felix Varela" Pedagogical Campus.

Scientific questions:

1. *What strengths and weaknesses concerning audio-pollution consciousness do Non-university Teacher Education Crash Course 2nd year Students at "Felix Varela" Pedagogical Campus have?*

2. *What theoretical and methodological bases support the development of audio-pollution consciousness?*

3. *What changes could be introduced in the teaching learning process of English of Non-university Teacher Education Crash Course 2nd year Students at "Felix Varela" Pedagogical Campus?*

4. *What went well and what did not go well during the introduction of the changes in the teaching learning process of English of Non-university Teacher Education Crash Course 2nd year Students at "Felix Varela" Pedagogical Campus?*

5. *What transformations should occur in the Non-university Teacher Education Crash Course 2nd year Students at "Felix Varela" Pedagogical Campus with the changes introduced during the process of research?*

6. *What scientific results will emerge of the process of building up carried out during the research?*

Scientific Tasks:

1. Diagnosis of the students' strengths and weaknesses concerning audio-pollution consciousness in students at Non-university Teacher Education Crash Course 2nd year Students at "Felix Varela" Pedagogical Campus.

2. Establishment of the theoretical and methodological bases that support the development of audio-pollution consciousness.

3. Introduction of the necessary changes in the teaching learning process (TLP) of English of Non-university Teacher Education Crash Course 2nd year Students at "Felix Varela" Pedagogical Campus.

4. Evaluation of the changes introduced to develop audio pollution awareness in Non-university Teacher Education Crash Course 2nd year Students at "Felix Varela" Pedagogical Campus.

5. Evaluation of the transformations occurred in the subjects of research regarding audio pollution awareness.

6. Proposal of the final scientific product that emerged as a result of the building up process.

Scientific methods:

From the Theoretical Level:

➢ **Historic-logical:** It was followed to describe the antecedents of the treatment of the scientific problem declared in this research and in the analysis of different sources regarding the development of audio-pollution consciousness.

➢ **Analytic-synthetic:** It was used during the whole research process but mainly to process theoretical and methodological information from different primary sources consulted to back up the scientific problem described in the introduction of this paper.

➢ **Inductive-deductive:** It was also used during the whole research process as this paper follows the action research method and to identify regularities after the administration of different empirical instruments.

- ➢ **Systemic Approach:** It was used to establish the relationship between the different activities and lessons of the built up system to potentiate the audio-pollution consciousness.

From the Statistic-Mathematical Level:
- ➢ **Percentage analysis**: It was employed to process the information obtained from the processing of empirical data obtained during the need's assessment.

From the Empirical Level:
- ➢ *Document analysis***:** English Syllabi, Textbook and Educative Strategy of the group.
- ➢ *Interview:* To the teacher that guides the group and to some other teachers of the staff.
- ➢ *Informal group of discussion:* constituted by ten students-teachers and a professor.
- ➢ *Participant Observation:* to the subjects of research regarding knowledge, attitudes, awareness and capacity building about noise pollution.
- ➢ *Survey:* Administered to the Non-university Teacher Education Crash Course 2nd year Students at "Felix Varela" Pedagogical Campus.

- ➢ **Survey:** A second survey was administered to the students to know their opinions about the proposal that is built up.
- ➢ **Peer Observation to the students' behavior:** to the subjects of the research.
- ➢ *Triangulation*

  All these methods were used to obtain the necessary data to verify the problematic situation already described and the students´ transformation during the building up process of the scientific result.

Subjects of research:
- ➢ The subjects of this research are 9 students from the Non-university Teacher Education Crash Course 2nd year Students at "Felix Varela" Pedagogical Campus. They have a minimum level of knowledge and behaviors about environmental audio pollution.

DISCUSSION

1.Needs assessment.

As a way of corroborating the problematic situation described in the introduction of this study, several empirical methods were administered to the subjects of research following some categories in order to obtain as much information as possible about the students´ weaknesses and strengths regarding their, knowledge, attitudes and skills and capacity building on audio- pollution consciousness.

1.1. Psychological characteristics of the subjects of research:

The subjects of research are 9 students who belong to a unique group of the Non-university Teacher Education Crash Course 2nd year. They are youngsters. All of them are 18 years old. They show interest to learn about different topics.They show motivation to know about environmental issues and how to contribute to solve some of them but they lack knowledge, attitudes and awareness about audio pollution as one of the environmental issues of this century.

1.2. Empirical methods:

➢ **Document analysis:** It was used to know about the treatment given to environmental education within the syllabi and textbook of Integrated English Practice in the Non-university Teacher Education Crash Course 2nd year and English Foreign Language Methodology in Secondary Education. It was also used to know about the guidelines established for the entire school year in the educative strategy.(annex 3)

➢ **Interview:** This interview was administrated to the teacher that guides the group, some other teaachers of the staff and also to an informal group of discussion to get information about what is done to create environmental awareness, and to evaluate the advantages of this proposal. (annex 2)

➢ **Participant observation:** to corroborate the students'attitudes, awareness and capacity building about noise pollution. (Annex 4)

➢ **Survey:** It was administered to the students in order to have more information about their knowledge, attitudes, capacity building and awareness in relation to environmental education and specifically about audio pollution. (annex 1)

➢ **Triangulation:** This method allowed the authors to identify the regularities about the scientific problem detected using the data obtained through the administration of different empirical methods.

The selected categories and sub-categories in this research revealed the ways to operate with audio-pollution consciousness during the research and covered the elements that were prominent for the objective of this paper.

Categories:	Subcategories:
1. Knowledge: **To help the social groups and individuals to acquire knowledge of environment, environmental pollution and environmental degradation**	- Definition of main environmental concepts. - Identification of different kinds of pollution. - Awareness of the consequences of audio pollution.
2. Attitudes: **To help social groups and individuals to acquire a set of values for environmental protection.**	- Recognition of values towards audio pollution through the teaching learning process. - Demonstrated values towards audio pollution.

| 3. **Skills and Capacity Building:**

To help social groups and individuals to develop skills required for making discriminations in form, shape, sound, touch, habits and habitats. Further, to develop ability to draw unbiased inferences and conclusions. | - Development of skills and capacities while planning listening and reading lessons to raise students' awareness about audio pollution
- Active involvement in creating activities to fight against audio pollution in campus
- Implementation of the activities created by themselves or by someone else to raise awareness in the young generations. |

1.3. Analysis of the results:

The following information was gathered by first analyzing the results of each instrument administered to the subjects of research during the needs assessment phase, and later by triangulating these results according to the categories and sub-categories defined in order to identify the regularities.

What is next presented are the results of the triangulation:

1. *Knowledge:*

   Regarding this category the survey applied to the subjects of the research showed that they could define some of the main environmental concepts such as: environment and environmental pollution but most of them could not define noise as a pollutant. While asking them through question number 2 in the survey to identify environmental issues 100% of the subjects of research could identify deforestation, land pollution, ozone layer pollution and water pollution but only 3 out of 9 (33,3 %) identified noise as one of the pollutants.

   Also questions number 4, 5 and 6 of the survey were intended to check the students' awareness of the consequences of audio pollution, and here 8 out of the total which (90 %) of the students were not aware of the presence of noise

pollution in campus and 6 (66,6 %) were not completly sure. However, all the subjects (100%) considered that environmental protection involves everyone showing that they see themselves as active individuals

The participant observation done permitted to express that (88,8%) of the subjects of research contribute to noise pollution in campus because they keep a loud behavior on a regular basis as they yell at each other and they use loud speakers to listen to music.

The interview to the teacher that guides the group showed that there is an educative strategy which contains five general actions to develop environmental education mainly devoted to enhance curricular and extracurricular activities such as: to conduct environmental celebrations, to participate in an enviromental club, to develop the students' abilities while creating posters or teaching aids about the environment and to visit a botanical garden. Some of these activities could not be completed and none was directed to deal with audio pollution or with the development of didactic skills to have the students prepared so as to be able to educate the future generations about this environmental issue.

The document analysis carried out revealed that in the Integrated English Practice II Textbook, out of a total of 8 units, and 25 communicative functions distributed in them, 2 units (25 %) offer opportunities to work with environmental issues: Units 3 and 7. One of the activities in both units is devoted to develop listening skills, as part of unit #3, and unit #7 which is thematically bound to this topic, and entirely devoted to environmental education. Despite this fact, no specific contents are found regarding noise-pollution. Also, there were not methodological suggestions about the teaching of such contents in the English syllabus, neither extracurricular activities planned. Furthermore, the program of the subject does not deal with much information about environmental education as one of the global issues.

The syllabus revision of the subject Teaching English Foreign Language Methodology III, on the other hand, revealed that although working with global issues, specificallyenvironmental education is recommended in the methodological guidelines as a cross curricular startegy, no reference is made

to work with audio-pollution. Despite this fact, Units 1 and 2 offer opportunities to work with this issue.

2. *Attitudes:*

While deepening into this category the survey brought about light on the fact that the majority of the students considered themselves not ready to recognize values towards audio pollution, through the teaching learning process they will direct.

The participant observation done allowed the researcher to corroborate that the subjects of this research are not ready to recognize values towards audio pollution through the teaching learning process. This happens because they can not distinguish the potentialities of the content and they are not totally aware of this environmental issue. Consequently, their demonstrated values towards audio pollution are affected.

The interview to the staff showed that on the part of the teachers there have been actions devoted to develop attitudes regarding other kinds of pollution but still most teachers are not mindful of the need to develop awareness regarding audio pollution. Hence students do not show signs of demostrated values in this sense neither in campus nor while planning lessons.

3. *Skills and Capacity Building:*

The document analysis carried out to the Educative Strategy of the group and to the syllabi revealed that though there are actions concieved to protect the environment, there is no explicit action to develop skills and capacities in this particular kind of students while planning lessons to raise awareness about audio pollution as part of their preparation as teachers.

The participant observation done to the subjects of research demostrated that they had a minimun of skills for the topic.

The interview to the staff showed that though no activities have been included about this particular kind of pollution in the educative strategy, there is a potential in the students that could be developed while motivating them about the topic by involving them actively in some activities during their lessons and during their

practicum. The staff do not know of any organization in the community which works with this topic.

1.4. Regularities:

Strengths:

1- The majority of the students know what environment and pollution are.

2- Most of them can identify ways people use to pollute the environment.

3- There are contents of the English syllabi that facilitate working with environmental education particularly with noise pollution as a cross-curricular activity such as: Units 6 (Awful weather) and 16 (A Tricia Miles record) in Integrated English Practice. In the subject Teaching English Foreign Language Methodology for Secondary School III there are also opportunities to work on providing knowledge and awearness about noise pollution to students while dealing with Units 1 and 2 where the teaching of listening and reading are the learning goals, at the same time it is also possible to put into practice a professional oriented approach in them.

Weaknesses:

1. The students lack knowledge about noise pollution, its causes and consequences.

2. Poor participation of social and mass organizations in promoting the protection of the acoustic environment that surrounds the university.

3. The students do not participate in any activity to develop skills and capacities to protect the acoustic environment.

4. The English syllabi and the teachers of English do not fully take advantage of some contents to promote environmental education related to noise pollution.

The previously stated needs required the author's deepening into the theoretical and methodological foundations about this issue.

2. Theoretical and methodological foundations about noise as a pollutant of the environment.

2.1. <u>Historical antecedents of environmental education on noise pollution programs in Cuba.</u>

The issue of noise in Cuba has been one of the most popular and repetitive on a daily basis, for a while now because of contemporary Cuban life's new ways and commotion. Different media platforms have made echo of its effects and are dealing with this subject from an environmental pollution standpoint (something which was never done up until a few years ago), taking into account the fact that experts classify it as the fourth pollution agent after water pollution, air pollution and solid waste pollution.

Resizing an old problem, which concerns everyone because it affects all of us in one way or another: in neighborhoods, on the street, in workplaces, the majority of us are prone to becoming victims of noise. However, even though it is important to talk about this subject (especially from an educational standpoint), talking and talking about it isn't enough.

There are some people who have even justified high levels of noise pollution in the environment and at home in Cuba with the cliche of the easy-going and cheerful Cuban are. Hence, is being Cuban equal to loud noise? Those who are more inclined to make a racket use this as an excuse so they can continue "to make noise" under the protection of a deeply-rooted belief that being Cuban and making a scandalous racket are the same thing. A half-truth that has been wrongly generalized, which is not supported by the many Cubans who have nothing to do with this racket, nor do they take on this joyful person when this comes into conflict with being polite and adhering to good manners and healthy co-living practices.

About this issue the historian of Havana Eusebio Leal Spengler citing Alfredo Guevara, another well-known Cuban artist has stated…" the Cuban society requires a refinement…Why should we ever get use to scandals? …Our youth is a victim of this context…we must bring light into this issue so as to eradicate it. (TV interview offered by Eusebio Leal Spengler on January 2018 to Cubavisión TV Channel.

In order to dissuade individuals from their shouting and privately public concerts, it's normally not enough to let them know about the harm they are causing to people's health with continuous exposure to high sound volumes, nor that the World Health Organization (WHO) standards recommend a maximum of up to 65 decibels during the day and 55 at night. Nor that there are legal measures that can be applied against people who make noise.

Would any of this make the unconcerned see sense?

In the past, on public transport, for example, the problem used to be just with drivers who used to play loud music on their vehicle's loudspeakers. Today, as well as that old problem, there is also the proliferation of "traveling Djscos", who force people nearby to listen to their music at high decibels (with the power of their portable devices increasing as the days go by) in open spaces – and even closed spaces – which are public (sometimes even in health institutions).

Unfortunately, people who are violated "acoustically" by unwanted noise is no longer an isolated incident but rather an invasive act that is becoming widespread, especially among the youngest Cubans, but also among a good number of older people, who assume that everybody likes to listen to the same kind of music, or loves the same songs and artists that show business and/or the Weekly audio-visual Package make fashionable.

A report presented to the National Assembly of People's Power in 2016 made a quick reference to the issue, referring to the "population's social indiscipline in their homes, cars, bici-taxis, etc. and what happens because of the lack of demands of managers and higher levels of management at some recreational facilities or free lancers such as carpenters, tire repair workers, etc

In the case of Cuba, education is one of its key pillars, as well as a vital commitment of the State to its society. And this precept is fulfilled because there is close coordination between the policies and strategies implemented by the country to ensure the educational development and economic and social progress it requires. This is favored by a strong engagement of society and the awareness that education is a task in which everyone participates in one way or another, and therefore should also be the

responsibility of all, although it falls on the Ministry of Education the state duty of managing, guiding and controlling education at all levels.

Dr. Rolando Forneiro Rodríguez Vice minister of Education Republic of Cuba has pointed out in a roundatable entitled "Education for sustainable development and its expression in the Republic of Cuba" that the Cuban State recognizes the political and social significance of the World Conference on Education for Sustainable Development (ESD) for the survival of mankind in the XXI century. Therefore, the government gives the highest priority to the process of formal and community Environmental Education for Sustainable Development (ESD) by articulating a national strategy as an organic part of the National System of Education.

He has also asserted that sustainable development should be seen as the will to elevate everyone's quality of life, including that of future generations, by reconciling economic growth, social development and environmental protection and that ESD does not barely focus on acquiring knowledge about sustainability and environmental issues, but also on modifying behaviors and attitudes.

It has been recognized that ESD is a dynamic multidisciplinary approach to educational reform that provides people at all stages of life and in all learning contexts – both formal and non- formal ones– the opportunity to learn about the necessary lifestyles and values to create a sustainable future.

 In underdeveloped countries, this aspect is aggravated in view of the serious social and economic problems, low educational level and the need to survive to ensure their basic needs with the use of inappropriate methods that are not compatible with the environment. This increases the problems together with the role of developed countries that have been worsening environmental problems with exaggerated consumption patterns. Quintero L, (2011)

The environmental issues require a qualified population that incorporates the environmental dimension into its daily lives.

In qualifying the Cuban population teachers play an extraordinary role and so institutions who form teachers like "Félix Varela " campus at Central University "Marta Abreu" de Las Villas need to keep an active, pertinent and permanent innovation to contribute to solve this undesirable issue.

2.2. <u>Some key concepts about the environment and its pollution.</u>

Environment: It is everything around a living being. It affects and especially determines the circumstances of the human life and also his society. It involves all the natural, social and cultural values existing in a certain place or moment, involving everything in existence such as: human beings, objects, water, soil, air and the relationship among them. Taken from Meanings of environmental terms. Journal of Environmental Quality (26: 581-589).

The natural environment encompasses all living and non-living things occurring naturally. The term is most often applied to the Earth or some part of Earth. This environment encompasses the interaction of all living species, climate, weather, and natural resources that affect human survival and economic activity.

<u>TYPES OF POLLUTION</u>: *WATER POLLUTION, AIR POLLUTION, LAND POLLUTION and NOISE POLLUTION.*

The term pollution can be defined as influence of any substance causing nuisance, harmful effects, and uneasiness to the organisms.

Pollutants are any substance causing nuisance or harmful effects or uneasiness to the organisms, then that particular substance may be called as the pollutant. (dictionary.reverso.net/english-cobuild/audio-pollution).

Environmental Pollution can be defined as any undesirable change in physical, chemical, or biological characteristics of any component of the environment i.e. air, water, soil and audio which can cause harmful effects on various forms of life or property.

Water Pollution: It is a modification of the water provoked by people that make it not potable or drinkable.

Air Pollution: It is also named atmospheric pollution and it is provoked by people when they send pollutants to the atmosphere causing damages to the living lives and destroying the environment. Martinez, E y Díaz, Y *(*2004)

Land Pollution: It consists basically in the accumulation of substances in such levels that harm the soil. This concentration of pollutants becomes toxic to the organisms of the soil making total the damage of the productivity of the soil.

(Taken from Wikipedia, S.K. Gupta, C.T. Kincaid, P.R. Mayer, C.A. Newbill and C.R. Cole, ''a multidimensional finite element code for the analysis of coupled fluid, energy and solute transport'').

2.2.1 Actions to preserve the environment.

Even when there is both the desire and the policy for a 21st-century education, the teachers' assessments are almost all geared for classical subject matter knowledge and almost never offer the means to assess the flexible, cooperative thinking that is the hallmark of interdisciplinary thought.

And yet, there are also hopeful signs. Young people often do not share the prejudices of their elders, and even when they do, their minds are far more likely to be changed. Younger teachers are more comfortable with new ideas, new media, and new practices. Mansilla, V.B & Jackson, A (2011)

Nowadays, numerous resources are available to promote environmental consciousness such as: learning groups in Elementary Schools and Junior High Schools, informational and inspirational seminars such as: Awakening the Dreamer Program and environmental books and brochures are just a few of the tools that can get people and teachers involved in promoting environmental awareness.

2.3. Environmental Education: Objectives and Principles.

Environmental education is concerned with those aspects of human behaviour which are more directly related to man's interaction with bio-physical environment and his ability to understand this interaction.

(UNESCO, Abril de 1978. Informe Final de la Conferencia Intergubernamental sobre Educación Ambiental, organizada por la UNESCO con la cooperación del PNUMA. Realizado entre el 14 al 26 de octubre de 1977).

One of the most glaring issues which the world faces today is the environmental pollution. Man has exploited nature excessively at the cost of the environment.

There is an immediate need to make people aware about environmental degradation. Education and public participation may change and improve the quality of environment.

According to UNESCO, "Environmental education is a way of implementing the goals of environmental protection. It is not a separate branch of science but lifelong interdisciplinary field of study." It means education towards protection and enhancement of the environment and education as an instrument of development for improving the quality of life of human communities.

2.3.1 Objectives of Environmental Education:

The following are the objectives of environmental education:

1. *Awareness:*

To help the social groups and individuals to acquire knowledge of pollution and environmental degradation.

2. *Knowledge:*

To help social groups and individuals to acquire knowledge of the environment beyond the immediate environment including distant environment.

3. *Attitudes:*

To help social groups and individuals to acquire a set of values for environmental protection.

4. *Skills and Capacity Building:*

To help social groups and individuals to develop skills required for making discriminations in form, shape, sound, touch, habits and habitats. Further, to develop ability to draw unbiased inferences and conclusions.

5. *Participation:*

To provide social groups and individuals with an opportunity to be actively involved at all levels in environmental decision making.

UNESCO has also highlighted that the aim of environmental education is clearly to show the economic, social, political and ecological interdependence of the modern world, in which decisions and actions by different countries can have international repercussions. Environmental education should, in this regard, help to develop a sense of responsibility and solidarity among countries and regions as the foundation for a new international order which will guarantee the conservation and improvement of the environment.

The main aim of environmental education at the grass root level is to succeed in making individuals and communities understand the complex nature of the natural and the built environments. Further, to acquire the knowledge, values, attitudes, and practical skills to participate in a responsible and effective way in anticipating and solving social problems, and in the management of the quality of the environment (Adapted from www.yourarticlelibrary.com)

2.3.2 Environmental Education in Cuba.

Cuba's insertion into the COMECONSYSTEM retarded the growth of environmental consciousness. Miguel Limia David, a senior researcher with Cuba's Ministry of Science, Technology and Environment (CITMA), has stressed "the predominance of an instrumentalist and personally irresponsible attitude to the use, enjoyment and disposal both of natural as well as socially created resources". Why? For years "we basically aimed at producing more wealth and raising consciousness without paying appropriate attention to the costs of producing that wealth".

A point of reference is the writings on the humanity-nature relationship by Cuba's national hero and martyr, Jose Marti. These, in the words of Limia David, "refer to the need to develop a harmonious relationship with the universal conditions of life, with 'first nature', as well as to build an ordered, pure and cultured 'second nature'".

A succinct expression of this outlook came in Fidel Castro's speech to the 1992 Rio Earth Summit, and has since been matched by a rapid increase in environmental laws and projects within Cuba.

Between 1992 and 1998, the National Assembly of People's Power amended the Cuban constitution to entrench the concept of sustainable development; the National Environment and Development PROGRAM was developed (outlining the path Cuba would take to fulfill its obligations under the Rio summit's Agenda 21); CITMA was established; an overarching environment law passed; and a national environment strategy was launched.

Other major initiatives included a national strategy for environmental education; a national PROGRAM of environment and development; projects for food production via sustainable methods and biotechnological and sustainable animal food, as well as a national scientific technical program for mountain zones and a national energy sources

development program. Each of these program are composed of smaller projects and initiatives, involving local communities, People's Power bodies, universities, schools and mass organizations.

Successes.

There have been gains in health, access to water and electricity, education and land reform, which according to orthodox classification methods are not "environmental" but without which no real advances against environmental degradation are thinkable.

Such gains would never be realized if Cuba reverted to capitalism and was obliged, for example, to pay the US$100 billion debt that Washington estimates Cuba owes for private property expropriated by the revolution. As one environmentalist put it: "The foremost environmental problem we have is making sure we don't fall into the hands of the empire."

Cuba's highly educated people, of whom more than half a million are university graduates, are an invaluable resource base for recent advances such as the conversion to organic agriculture, the thorough surveying of its ecosystems and energy and resource base, the completion of a national biodiversity study, improved methods of water and soil management, and the application of new technologies for treating waste. Two fields in which Cuba is making headway against the odds are renewable energy and alternative housing.

Despite such advances Cuba's environmentalists do not underestimate the difficulties their country's environment faces. Delgado Diaz points out that "it is extraordinarily difficult to break the vicious circle of underdevelopment, environmental degradation and poverty. Phenomena of this type impose an individual economic dynamic that is often resolved at the expense of the environment."

What are the prospects? Perez de Alejo Victoria said that "the environmental realities are pretty unflattering, especially as regards renewable energy, which obliges me to be tactically pessimistic, even if from the strategic point of view I view the future with OPTIMISM." Limia David is less hopeful. He thinks environment policy can only work to its full potential if Cuban society overcomes the indifference generated by its paternalistic heritage, conquering "the unsatisfactory degree of involvement of the

direct producers in the means of production, that is, the inadequate linkage between everyone's way of life and the final results of the production process."

For David, Cuba's acute environmental problems cannot be solved by political will alone, necessary and important though that is: "They essentially demand not a new attitude on the part of policy generated by the state and the entire political system , but one that arises from the ordinary people, from the local communities and specific labor collectives. It is critical to develop a feeling of responsible ownership when faced with the universal bases of life."

However, Fernandez, M Diaz-Silveira, a CITMA specialist in the management of environment policy is more confident: "The sustained economic recovery and institutional changes that are taking place in Cuba provide a solid basis that allow us to advance with OPTIMISM in the application of our environmental policy, the norms and methods of application of which will take us to a higher stage in the protection of the environment and the rational use of natural resources."

The main factor behind this confidence is the mass participation and revolutionary commitment of Cuba's people and communities in implementing environment policy, an ingredient that no capitalist society can match. Even while Cuba still lags in making use of many of the tools available to capitalist governments (eco-taxes, environmentally adjusted national accounting), participatory democracy gives Cuba the chance to advance towards sustainability while in the rest of the Third World the environment collapses.

This is especially so when combined with the Cuban political SYSTEM'S capacity to implement integrated plans involving all "players" and its desire to educate its people in humanist and environmental values. There is a broad debate on the island about how to involve the mass of people in the battle for environmental sustainability. (adapted from Quotations from Cuba Verde (Green Cuba). José Martí Publishing House, Havana, 1999. Dick Nichols edited Environment, Capitalism and Socialism, the Democratic Socialist Party's analysis of the environment crisis. https://www.greenleft.org.au/.../cuba-environmental-sustainability).

2.4. <u>Noise Pollution. Concepts, causes and consequences. The role of the school in developing an environmental awareness about noise pollution.</u>

Noise pollution or noise disturbance is the disturbing or excessive noise that may harm the activity or balance of human or animal life. The source of most outdoor noise worldwide is mainly caused by machines and transportation systems, motor vehicles, aircraft, and trains. Outdoor noise is summarized by the word environmental noise. Poor urban planning may give rise to noise pollution, since side-by-side industrial and residential buildings can result in noise pollution in the residential areas. Documented problems associated with urban noise go back as far as Ancient Rome

Outdoor noise can be caused by machines, construction activities, and music performances, especially in some workplaces. Noise-induced hearing loss can be caused by outside (e.g. trains) or inside (e.g. music) noise.

High noise levels can contribute to cardiovascular effects in humans and an increased incidence of coronary artery disease. In animals, noise can increase the risk of death by altering predator or prey detection and avoidance, interfere with reproduction and navigation, and contribute to permanent hearing loss.

(http:// https://en.wikipedia.org/wiki/Noise_pollution])

Noise pollution, also defined as unwanted or excessive sound is a product of modern life. It can be a nuisance, interfere with activities, and can cause physical damage. Transportation noise is among the most pervasive noise sources in our environment today, particularly for people who live within five hundred feet of heavily traveled highways or within one hundred to two hundred feet of lightly traveled roads (Bedminster Township Magazine; 2010).

Causes: The principal causes of noise-pollution are provoked by loud sounds of means of transportation like trains, cars and air planes. Also high music and big cities are considered pollutants.

Consequences: Noise pollution is the main causer of disorders, either physical or psychological, such as: sleeplessness, deafness, paranoia, headache and stress.

Ways to control noise pollution: Some of the ways to control noise pollution are as follows: (1) Control at Receiver's End (2) Suppression of Noise at Source (3) Acoustic

Zoning (4) Sound Insulation at Construction Stages (5) Planting of Trees (6) Legislative Measures.

From the above discussion, it is evident that noise is not merely a nuisance but is a serious environmental problem and a health hazard.

Like all other pollutions, noise pollution needs to be controlled by measures which will maintain the acceptable levels of noise pollution for human beings and buildings as indicated.

Noise pollution can be effectively controlled by taking the following measures:

(1) Control at Receiver's End:

For people working in noisy installations, ear-protection aids like ear-plugs, ear-muffs, noise helmets, headphones etc. must be provided to reduce occupational exposure.

(2) Suppression of Noise at Source:

This is possible if working methods are improved by:

(a) Designing, fabricating and using quieter machines to replace the noisy ones.

(b) Proper lubrication and better maintenance of machines.

(c) Installing noisy machines in sound proof chambers.

(d) Covering noise-producing machine parts with sound-absorbing materials to check noise production.

(e) Reducing the noise produced from a vibrating machine by vibration damping i.e. making a layer of damping material (rubber, neoprene, cork or plastic) beneath the machine.

(f) Using silencers to control noise from automobiles, ducts, exhausts etc. and convey systems with ends opening into the atmosphere.

(g) Using glass wool or mineral wool covered with a sheet of perforated metal for the purpose of mechanical protection.

(3) Acoustic Zoning:

Increased distance between source and receiver by zoning of noisy industrial areas, bus terminals and railway stations, aerodromes etc. away from the residential areas would go a long way in minimizing noise pollution. There should be silence zones near the residential areas, educational institutions and above all, near hospitals.

(4) Sound Insulation at Construction Stages:

(a) Sound travels through the cracks that get left between the door and the wall. For reducing noise, this space (jamb frame gap) should be packed with sound absorbing material.

(b) Sound insulation can be done by constructing windows with double or triple panes of glass and filling the gaps with sound absorbing materials.

(c) Acoustical tiles, hair felt, perforated plywood etc. can be fixed on walls, ceilings, floors etc. to reduce noise (especially for sound proof recording rooms etc.)

(5) Planting of Trees: Planting green trees and shrubs along roads, hospitals, educational institutions etc. help in noise reduction to a considerable extent.

(6) Legislative Measures:

Strict legislative measures need to be enforced to curb the menace of noise pollution. Some of these measures could be:

(a) Minimum use of loudspeakers and amplifiers especially near silence zones.

(b) Banning pressure horns in automobiles.

(c) Framing a separate Noise Pollution Act. The following chart shows a decibel scale proving the amount of decibels considered as noise pollution.

(http://www.yourarticlelibrary.com/noise-pollution/how-to-control-noise-pollution-6-effective-measures/28287/
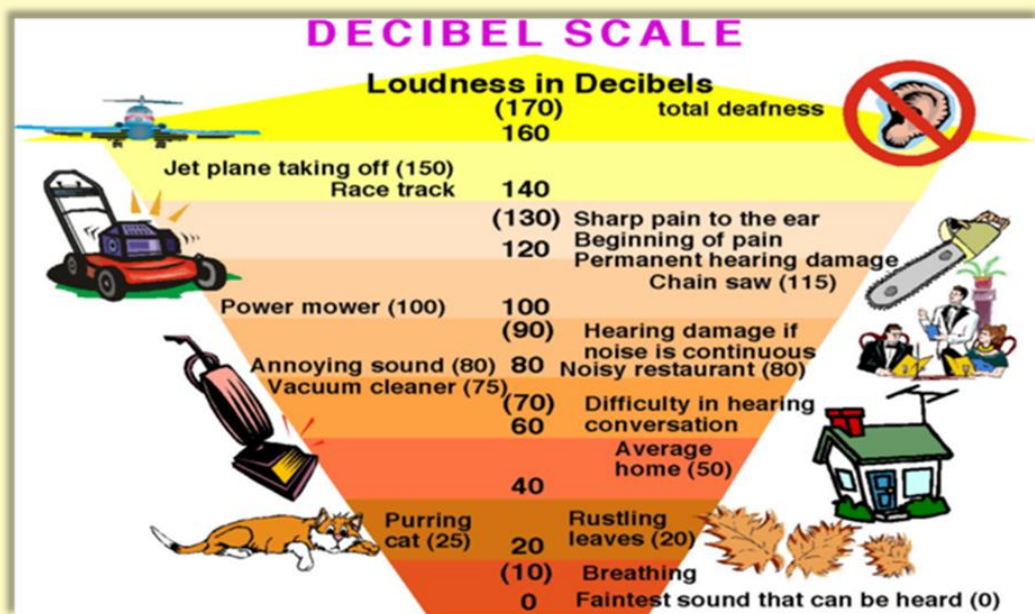
The theoretical sources consulted and the needs assessment process done allowed the author to start building up the proposal.

3. Building-up process.

3.1. <u>Description of the building-up process.</u>

During the period September 2016-June 2017, the author of this paper carried out the practicum at "Ramon Pando Ferrer" elementary school, which constituted the first cycle for the present action research. It consisted on designing and partially applying a system of extracurricular activities entailed to develop consciousness on audio pollution as an environmental issue in a 6th grade group of students. This system was composed by 8 activities, but only 4 were applied and the results were presented as a major paper in June 2017.

The second cycle of the present action research was carried out during the period September 2017-May 2018 since the lack of audio pollution consciousness was also detected in the Non-University Teacher Education Crash Course 2nd year Students, where the author was carrying out the 5th year practicum and it is considered a key stone if someone wants to better prepare the young Cuban population regarding such unexplored and up-to-date field.

The discussion group created for the research analyzed the initial proposal of activities and lessons, and it recommended that it must be flexible to any adaptation so as to attain the needs of the subjects of research. Besides, it was considered that the activities and lessons could be created by the author, but these ones should be revised by the discussion group.

The author was also advised to pay attention to students' reactions when implementing the activities and teaching the lessons since they are professionally bound. Some activities could or not be comprehensible for all students. Moreover, students could have problems when using the specific vocabulary while doing the activities.

Following these suggestions, the author made a thorough analysis of the results of each activity and lesson once it was implemented by means of several participant observations that were carried out to students. Notes were taken down about what went well or wrong in the activities and lessons, what the students´ reactions were, whether verbal and non-verbal.

Besides, the causes influencing what went well or not were obtained through in- depth- interviews applied to the students at the end of each activity or lesson, and later consulted in specialized sources such as Didactics of Foreign Languages, Pedagogy, Psychology and English Linguistic Studies.

The researcher intervention took place in the subject "English Language Teaching Methodology in Secondary School III" since the researcher had the opportunity to teach it as an assistant student and also some activities were carried out as contributions to the Educative Strategy of the Year, because it is a need in attaining the comprehensive formation in this kind of student and it also enriches the environmental curricular strategy. The units selected for the intervention were unit 1 about the teaching- learning process of Listening and Unit 2 about the teaching- learning process of Reading.

This specific situation and the author's reflections were decisive in taking new actions, adapting them and further implementing them.

The first activity was designed with the objective that the students could get familiar with the main concepts about audio pollution in which they were able to create a flannel board with images that starts the students' motivation and knowledge about this topic. This activity developed motivation and long term memory processes to retrieve vocabulary in context. It was done as a group work assigment in lesson 2 Unit 1 and put into practice as a warmer of lesson 4 Unit 1. For the majority of the students it was fun to work with images as words which represent key concepts related to audio-`pollution. Only two students were skectical at the beginning but they joined the group and they could participate actively.

The second activity had as objective that the students got familiar with the main possitive and negative actions related to audio pollution so as to become activists to contribute to audio antipollution as world citizens. In this activity teachers used the flannel board previously created and represented the most common positive and negatives behaviours regarding audio pollution and they will be inserted in context. The activity was done during lesson 5 Unit 1 as a game to motivate the students and it offered the possibility to use mimicry or and total physical response to back up the students understanding and motivation and at the same time to increase the students didactic preparation by putting into practice TPR which is very useful in FL lessons.

The third activity was entittled "Mapping your audio space" in which the students were supposed to work in groups and integrate what they had learnt about audio pollution while mapping the audio space that surrounds them to contribute to sensitize the population about the audio pollution deterioration. This activity was carried out by the students during the after listenning stage belonging to lesson 5 Unit 1. The students were helped by the teacher while they signalized noise disturbances at school and in their community. To fulfill this activity some students were asked to draw the map while others were walking around the community to portrait the real situation, they took down notes about it and finally some other were signalizing the zones that were affected by audio pollution. This activity allowed the students to actively contribute to sensitize the population about the audio pollution deterioration since it ended up by displaying the created map to the people living in the community and by having them explain what they found out. It was amazing to see that at the beginning some members were not very convinced of the usefulness of this activity, the author could notice some looks and laughs but soon the group was motivated because the best student started to help in organizing the different roles and they could organize themselves. Finally, they could sensitize the population about this issue and they said phrases such as: "We did it" "It was fun"

The fourth activity was done as a project work assigned during the after reading stage of lesson 5 Unit 2. Its objective was to integrate what they have learnt about audio-pollution while creating a noise dosimeter to measure the noise that surrounds them so as a way to be aware of the interconnectness among different disciplines while looking for solutions to everyday environmental problems such as audio pollution deterioration and also developing their innovative side. This activity allowed them to develop their creativity as students and prepares them as future teachers. The best creation was highly valued since it is a great quality for their future profession. This activity allowed the students to learn that FL teachers need to know how to create teaching aids and at the same time they need to learn how to link contents from different disciplines. With this activity the reactions were interesting since most of them loved the idea but some students were not very motivated because they do not consider themselves as creative people and they are not good at drawing. Nonetheless, they finally helped and realized

that everyone can be creative. It was interesting to discover that the dosimeter was created on the basis of emojis which are very popular among youngsters who are very attached to informatics.

The fifth and sixth activities were two kinds of lessons through which students could learn how to plan receptive skills lessons. The fifth one was a listening lesson and the sixth one was a reading one.

The listening lesson was implemented in Unit 1:¨The teaching of the receptive skills. Listening comprehension¨. This lesson was intended to provide the students with practice regarding the teaching of listening so as to be professionally efficient in their teaching practice and future profession, while analyzing critically a listening lesson plan which educative intention was to develop audio-pollution awareness.

In this lesson a recording and dictionaries were used as teaching aids to get the students´ work easier and to enhance their abilities while using the dictionary. Before getting into the first stage of the lesson, the author organized the classroom, greeted his/her students and called the roll, explained to the students that they should take down notes on the procedures followed by the teacher while delivering the lesson so as to reflect on good practices for this kind of lesson in FLT, all belonging to the warm up. Then, in the before listening stage, the author showed three pictures and the students should anticipate the topic they will listen to. This activity was motivating for the students, all of them tried to guess and it was used to activate their prior knowledge and check if they could guess what the recording entitled ¨Noise is everywhere¨ would be about. During the while listening stage, the orientation of the first exercise of the while listening stage was well formulated and it was not complex, so the students could do it well and they finished on time. It was planned to check the students´ predictions, if they were right or wrong, and they had to back up the wrong ones. The second one, was intended to develop their abilities on taking from the recording its general idea. In this exercise the students had to listen the recording once again and tried to select from a list the title that best suit the recording. The researcher realized that in this activity the students were unfocused because the exercise was kind of boring and difficult to them, because that was the first time they face this kind of exercise. The third exercise of this stage was well planned, in which the students had to identify relevant information from

irrelevant ones from the recording. The teacher plays the recording once again, and the students had to select from the list given, the ideas that are relevant, and they should be ready to support their choice. The last activity of this stage was planned to get the students guess phrases that are relevant for understanding the recording. This exercise was planned to be done in 20 minutes in which the students had to fill in the blank spaces with the phrases given in the list. The recording was played as many times as needed and finally, it is played completely and at the same time they should read the script to check if their answers were correct. Moving to the after listening stage the researcher assigned an exercise to develop their vocabulary. This activity was planned to have the students choose key words from the text, which meanings require, clarification and add them to their vocabulary list or notebooks. This lesson was planned and taught following the pedagogical professional approach and the students' reflections on how and why the lesson had been taught that way were stimulated. As independent work the students were assigned to find some online activities or create their own ones to planned a listening lesson, based on all the methodological suggestions given by the teacher. All the lessons should be checked by another teacher, and they should put it into practice in their practicum period. At the end, the teacher devotes the last 20 minutes to have the student reflect on the methodological structure of a listening lesson.

The sixth one was implemented in Unit 2: The teaching of the receptive skills. reading comprehension. It was planned to have the students summarize an article about noise pollution in Cuba, while developing consciousness about the importance of preserving our audio environment. In this reading lesson the researcher orients the students that they should take down notes on the procedures followed by the teacher while delivering the lesson so as to reflect on good practices for this kind of lesson in FLT to fully warm up. In this lesson a script and dictionaries were also used as teaching aids. This lesson was developed in the New Class laboratory number 2, that is why the author does not have to organize the classroom, but he greeted his students and called the roll. Then, in the before reading stage, the researcher showed some pictures and asked questions related to the topic of the lesson as the first activity of it. This activity was successfully done because the students were familiarized with the topic and the exercise was not

difficult for them. After, in the while reading stage, the orientation of the first exercise was well formulated, but the teacher could make a better explanation of the task of the exercise to have the students clear about what they had to do. In this exercise the students should read the text and make some predictions, and check if they are right or wrong, and finally back up the wrong ones. The second activity was a multiple choice exercise in which the students had to read the text again and select among three ideas the one that is central in the text. This activity was well formulated, the students could understand the task, and the exercise was finished on time. The successfulness of this activity was due to the previous reading of the text. The third one was an activity in which the students had to select the author´s purpose, and they should support their choice according to the text. This exercise was planned to be done in 20 minutes, so they could do it on time. This was an exercise with a higher level of complexity in comparison with the previous ones. Although that it was a little bit difficult, the students did it very well. The last activity of this stage was a true or false exercise in which the students had to discriminate true information from the text, and back up the wrong ones. The students had to read the text again, find out three words which were **issue, standpoint and prone**, and looked up in the dictionary some synonyms for those words, taking into account the context. This activity took more time than the others because the synonyms they had to find out needed to be accurate to the context and the students are not very skillful in this. Also they had to write a summary using the synonyms found in no less than 50 words. This exercise was timed to be done in 15 minutes, this activity was successfully finished and the students were motivated with this kind of exercises.

In the after reading stage a professional oriented activity was planned for them. This activity was intended to be done in 30 minutes, but since the last activity of the previous stage took more time, the author had to do it in 20 minutes. In this exercise the students should reflect upon the activities designed for each stage of the lesson, thinking on the methodological procedures followed by the teacher and making them conscious of the reasons why they were done that way. At the end the teacher asked them for suggestions and strengths of this lesson.

Finally, the teacher assigned the homework in which the students had to create a dosimeter to measure the noise for a science competition for young innovators that will take place at the municipality.

3.2. <u>Evaluation of the transformations.</u>

The author of this research paid close attention to the pieces of advice given by the mentor of the research and by the research methodology professor who was part of the discussion group, during the implementation of the 4 activities and 2 lessons planned particularly, focused to know if the subjects of research needs were attained and to back up their progress. This together with the participant observations and peer observations done during the building up process allows the author to state that the interventions done during different lessons and activities to enrich the educative strategy of the year have had a positive impact on raising the students' knowledge, awareness, and capacities regarding audio pollution and also a better understanding of their role as educators.

All the suggestions were taken into consideration while applying the activities and the lessons designed. The author analyzed the results obtained in every intervention by means of participant observations, surveys and interviews that were administered to students and teachers. Notes were taken down about what went well or wrong in the activities, students´ reactions, and the reasons why the activities did or did not work, and what needed to be improved or added to make the final proposal.

The full implementation of this proposal contributed to reinforce the students' awareness about audio pollution. It motivated them to create their own activities, to have an active role in the community by protecting the environment and to plan lessons which educative intention declared in the objective is intended to raise awareness in the students about audio-pollution. Also the students learned good models for their future role as educators who need to change their students' knowledge, attitudes and actions regarding environmental education but they realized that it is not an easy task and they highly value their roles as educators in gathering students, families, the mass and the social organizations of the school and the community and even the local and national government.

The author, while being the researcher of his own practice has received many benefits from the action research process as he could distinguish his professional work. Another benefit has to do with the pleasure of working in collaboration with classmates while re-adapting, creating activities and lessons and making decisions to find out new outcomes and to have a restart and appropriate lesson plan or activity whenever it was needed.

3.3 Foundations of the scientific result.

The final scientific product that emerged as a result of the building up process is rooted on foundations from different fields.

3.3.1 Philosophical foundations.

The philosophical foundations of the proposal of the present research are grounded on the Marxist-Leninist philosophy, specifically the negation of negation law because during the implementation of the proposal the teacher took into consideration the aspects that did not go so well, to improve them next time. In addition, the dialectical materialism studies, the nature of human beings and its laws to turn the prior objective laws into method of further knowledge and transformation of reality. The study of the historical antecedents of Environmental Education in the Cuban Society and Education system have demonstrated that the procedures devoted to environmental education teaching in the different educational levels and in our society in general have not yet been effective. So, this proposal paves the way for the creation of a positive learning environment about this topic to help Non-University Teacher Education Crash Course students to learn about environmental pollution and to have good models that can be replicated or at least motivate them to create their own activities in the near future and to be active about the topic.

3.3.2 Pedagogical foundations.

The school offers the requirements for the development of an appropriate teaching learning process of English. The different class organization and sceneries that were used to put into practice the proposal facilitated the implementation of the activities and lessons creating a good learning environment. The students were central and active, not empty vessels since their opinions and ideas were taken into consideration. Besides, the students were given the chance to learn how to contribute to the integral

formation of the young Cuban generation through the teaching learning process they will conduct by raising awareness on global issues, particularly on audio pollution.

3.3.3. **Psychological foundations**.

Cognitive and educational studies based on the Historical-Cultural Theory (also known in English as the scaffolding concept, sociocultural theory or interaction hypothesis) are central here.

This concept was founded by L. Vygotsky (1979), who explained that psychological growth and human learning occur through continuous scaffolding, a process of personal progression from a given stage towards new successive levels (zones) of proximal development. This is accomplished with the help of "others" in accordance with the historical-cultural context in which the individual lives.

This means that:

♦ Learning begins through interaction with others – parents, teachers, friends, classmates, co-workers, social agencies (school, mass media, community institutions, work places, etc.). These agents mediate between each person and ~~the~~ socially accumulated knowledge and experience; i.e., they transmit to the learner the culture built up in their society.

♦ Through this process the individual moves towards internalization of cultural heritage, to its personal appropriation and re-creation. That is to say; each individual assimilates new contents learned in collaboration with "others", but integrates them into the system of concepts, abilities and values s/he already has, and does so according to his/her own experience, needs, goals and interests.

Vygotsky (1982), in particular, highlights the part language plays in these processes. The interaction with others implies "social use" of the language as a means of communication; the internalization of the social legacy requires the use of the language as a "psychological tool" of cognition. Thus, Vygotsky considers language is an essential tool in transmitting social knowledge and experience, in the formation of concepts, in the analysis and classification of phenomena from reality, and in ordering and generalizing facts and experiences.

Likewise, A. Leontiev (1981) underlines the role of language in learning, emphasizing that through the appropriation of linguistic meanings, the learner assimilates the system of thoughts and standpoints prevailing in his/her social context.

In short, learning and personality development are seen as both a social process, supported by the historical-cultural framework provided to each member by society, as well as an individual one, involving particular needs and features of personal cognitive and affective-moral growth.

3.3.4 <u>Methodological foundations.</u>

The proposal is based on the principles and theories of the Communicative approach for the teaching of foreign languages since practice has proved the successfulness of the CLT principles -stated by Morrow K. in 1983, N. Naiman in 1989 and redefined and adapted to the Cuban context by Alfredo Camacho Delgado, Ph.D. in 2002-as an important basis for the fulfillment of the objectives of the proposal. These principles are: meaningful practice beyond the sentence level, student-centered class, task orientation of classroom activities, development of strategies for learning beyond the classroom, as well as peer correction and group work. The author also affiliates to the Environmental Education objectives previously defined in this research.

The criteria followed to plan the proposal were the accumulated information in the teachers´ diary, the reflection carried out after the implementation of the preliminary system of activities and lessons, the suggestions of the discussion group and the subjects' regularities detected in the needs assessment.

Most of the activities are designed to be included as part of the curricular environmental strategy actions included in the educative strategy of the year and they were constituted in a Teacher handbook which comprises the main contents, methodological guidelines and examples of activities and lessons any FL teacher may need to be motivated to go on working by his or her own in his or her context.

The lessons were included in English Methodology to contribute to fulfill the goals for this kind of student which is to educate during the teaching learning process of English. It is also intended as a reference material that teachers can consult and put into practice at different levels.

The proposal consists of 4 activities and 2 lessons which were designed to be accomplished with the following objectives derived from those of environmental education stated in the theoretical background that supports the present research.

1. *Awareness:*

To help the group and individuals to acquire awareness about the noise pollution in their sorrounding environment.

2. *Knowledge:*

To help the group and individuals to acquire knowledge about what noise pollution is, its causes and consequences.

3. *Attitudes:*

 To help the group and individuals to acquire a set of values for environmental protection.

4. *Skills and Capacity Building:*

To help the group and individuals to develop skills required for making discriminations in form, shape, sound, touch, habits and habitats. Further, to develop ability to draw unbiased inferences and conclusions.

5. *Participation:*

To provide the group and individuals with an opportunity to be actively involved at some levels in environmental decision making.

3.3.5 Characteristics of the proposal

The final scientific proposal was contained within an audio-pollution handbook which comprises the following contents: introduction, how to use the handbook, grounding, activities, lessons, students' products of the activities and some images to work with the issue. This handbook is intended to cover an environmental goal with a professional approach for teacher trainning, and it was designed in a way that might be attractive and significant for the students and teachers, to guarantee their motivation towards the activities. They are all interconnected and gradually set from the simple to the complex.

Within the activities there is variety such as: group work, project work, flannel board game, painting and drawing and a listenning and a reading lesson. At the end of each lesson the teacher conducts his students to a professional reflection.

In each activity and lesson the following elements were considerd:

- ➢ Specific objective.
- ➢ Sub-skills.
- ➢ Timing.
- ➢ Activity and procedures.
- ➢ Means.
- ➢ Responsible.
- ➢ Participants.

3.3.6 FINAL SCIENTIFIC RESULT

ACTIVITY 1

Title:	"Audio pollution ABC"
Objective:	The students will get familiar with the main concepts about audio pollution
Task:	Create a flannelboard with images and words representing the basic concepts that will be inserted in context.
Procedure:	-The students will create a flannel board and a pack of cards with images that will represent the most used concepts related to audio pollution - It can be done as a game to motivate the students and it offers the possibility to use mimicry or and total physical response to back up the students understanding while raising motivation and long term memory processes to retrieve vocabulary in context.
Means:	-Flannel board -Pack of cards
Responsible:	-The teacher
Participants:	-The teacher and the students

ACTIVITY 2

Title:	"Do's and Don't s about audio pollution"
Objective:	The students will get familiar with the main possitive and negative actions related to audio pollution so as to be in a better position to reflect upon them and to become activists to contribute to stop audio antipollution as world citizens.
Task:	Insert the correspondent images reflecting positive and negative actions about audio space protection in context.
Procedure:	- The teacher will use the flannel board with images and words representing the most common positive and negatives behaviours regarding audio pollution and they will be inserted in context. - It can be done as a game to motivate the students and it offers the possibility to use mimicry or and total physical response to back up the students understanding while raising motivation and long term memory processes to retrieve vocabulary in context.
Means:	-Flannel board -Pack of cards
Responsible:	-The teacher
Participants:	-The teacher and the students

ACTIVITY 3

Title:	"Mapping your audio space"
Objective:	The students will integrate what they have learnt about audio pollution while mapping the audio space that surrounds them so as to be in a better position to reflect upon the topic and to actively contribute to sensitize the population about the audio pollution deterioration.
Task:	Create a map about your community audio space
Procedure:	Group work - The teacher will have the students create a map signalizing noise disturbances at school and in their community. - some students will create a drawing of the map, others will walk around the community to study the real situation and to take down notes about it and others will create the signals. -Finally, they will work together and the map will be exposed to the whole community at the school door.
Means:	-Flip chart -Colors
Responsible:	-The teacher
Participants:	-The teacher and the students

ACTIVITY 4

Title:	"Science for a better world"
Objective:	The students will integrate what they have learnt about audio pollution while creating a noise dosimeter to measure the noise that surrounds them so as to be aware of the interconnectness among different disciplines while looking for solutions to everyday environmental problems such as audio pollution deterioration and developing their innovative side.
Task:	-Create a dosimeter to measure the noise for a science competition for young innovators that will take place at the municipality.
Procedure:	-Have the students work in teams to research about the term "NOISE DOSIMETER" and motivate them to create their own noise dosimeter for a science competition for young innovators that will take place at the municipality. -When the students present their creations in the classroom have them vote for the most creative solution and say why. **-Possible vocabulary** dosimeter (American) dosemeter (British) noise disturbance noise control hearing damage sound exposure
Means:	-Flip chart -Cartoon -Plastic bottles -Scissors -Colors
Responsible:	-The teacher
Participants:	-The teacher and the students

LESSONS

LESSON 1. *(Annex 7)*

Title:	"Planning a listening lesson is Joy"
Objective:	To model a listening lesson in order to develop insights of the professional approach while understanding a monologue about noise pollution and raising awareness on this issue.
Task:	Plan a listening lesson about audio-pollution.
Procedure:	-The students will plan a listening lesson which educational intention is to raise audio pollution awareness in the students.
Means:	-PC -Printed materials -Board
Responsible:	-The teacher
Participants:	-The teacher and the students

Title:	**"Planning a reading lesson is wonderful"**
Objective:	To model a reading lesson in order to develop insights of the professional approach while summarizing an article about noise pollution in Cuba, and raising consciousness about the importance of preserving our audio environment.
Task:	Plan a reading lesson about audio-pollution.
Procedure:	-The students will plan a listening lesson which educational intention is to raise audio pollution awareness in the students.
Means:	-PC -Printed materials -Board
Responsible:	-The teacher
Participants:	-The teacher and the students

The lesson plans

Course: Non-university Teacher Education Crash Course 2nd year Students at "Felix Varela" Pedagogical Campus

Subject: Teaching English Foreign Language Methodology for Secondary School 3.

Unit 1: The teaching of the receptive skills. Listening comprehension.

Lesson 4: Modeling a listening lesson

Approach: Communicative Approach. (top-down approach)

Teaching Aids: Recording, digital bilingual dictionary

Timing: 85 minutes

Objective: To model a listening lesson in order to develop insights of the professional approach while understanding a monologue about noise pollution and raising awareness on this issue.

Warm up

The teacher first of all organizes the classroom, after greets his/her students and finally calls the roll and he orients the students that they should take down notes on the procedures followed by the teacher while delivering the lesson so as to reflect on good practices for this kind of lesson in FLT.

Follow up:

Before Listening Activities.

Task 1

Sub-skill: Predicting

Objective: To activate the students´ prior knowledge.
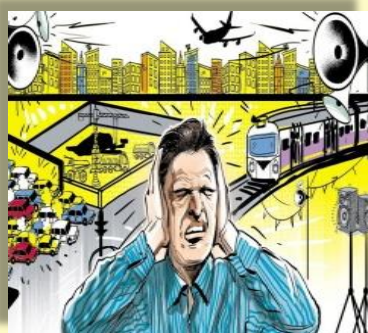
Timing: 10 minutes.

Procedures: The teacher presents the following pictures and has the students predict what the recording is about.

Activity

Look at the pictures which may relate to what you will read about.

♦ What do you expect to listen to when you look at the pictures?

While Listening Activities

Task 2

Objective: To check students´ predictions.

Timing: 10 minutes

Procedures: The teacher asks the students to listen to the text in no more than 3 minutes, to check if their predictions were right or wrong.

Activity

Listen to the recording to check if your predictions were right or wrong. Back up the wrong ones.

Task 3

Sub-skill: Identify the general idea.

Objective: To get the gist of the recording.

Timing: 10 minutes

Procedures: The teacher plays the recording once again and has the students select its general idea.

Activity

Listen to the recording again, and select from the following, the title that best suits the text.

- ♦ Noise
- ♦ Noise comes from music
- ♦ Where noise comes from
- ♦ Noise is everywhere
- ♦ Noise affects health

Task 4

Sub-skill: Identifying relevant points, rejecting irrelevant information.

Objective: To discriminate relevant information from irrelevant one.

Timing: 15 minutes

Procedures: The teacher plays the recording, and has the students identifying the relevant information from the suggestions given.

Activity

Listen to the recording once again and tick the ideas that are relevant in it. Be ready to support your choice.

- ♦ It is impossible to find a place without noise.
- ♦ People are eager to lessen the quantity of noise they hear.
- ♦ People feel nice with the noise around them.

♦ Most people are not aware of the quantity of noise they are exposed to.

Task 5

Sub-skill: Guessing at unknown words or phrases without panicking.

Objective: To have the students guess phrases that are relevant for understanding the recording.

Timing: 20 minutes

Procedures:

♦ The teacher asks the students to listen to the whole recording to fill in the blank spaces with the phrases on the list.

♦ Play the recording as many times as needed.

♦ Have the students listening to the whole recording while reading the script to check if their answers were correct.

Activity A

Listen to the recording and complete the blank spaces using the phrases from the list

THE ACTIVITIES

LISTENING GAP FILL

Noise is everywhere. I _____ a place on Earth where you can't hear anything. I live in the city, so noise is everywhere. Sometimes _____. I really want to have a button _____. It's amazing how much noise there is around us. We usually _____ about it. Listen now to the noise around you. Cars, computers, music, people talking. It's strange _____ in the past few decades, people have been talking about noise pollution. That's a really good description. Noise is _____. It's stuff that makes our surroundings unpleasant. I _____ is any kind of noise that is good noise. The very word 'noise' has a negative meaning. But if you say sound, it has a different meaning. I love the _____ laughing.

Listen while reading the script to check the answers.

Noise is everywhere. I bet there isn't a place on Earth where you can't hear anything. I live in the city, so noise is everywhere. Sometimes it gets to me. I really want to have a button to turn it off. It's amazing how much noise there is around us. We usually never even think about it. Listen now to the noise around you. Cars, computers, music, people talking. It's strange to think that in the past few decades, people have been talking about noise pollution. That's a really good description. Noise is quite often pollution. It's stuff that makes our surroundings unpleasant. I wonder if there is any kind of noise that is good noise. The very word 'noise' has a negative meaning. But if you say sound, it has a different meaning. I love the sound of babies laughing.

After listening activities.

Activity.

Vocabulary Extension.

This activity was planned to develop the students' vocabulary.

Choose key words from the text, which meanings require, clarification and add them to your vocabulary list or notebooks.

Independent work.

Based on the content studied in methodology plan your own English lesson on noise pollution. You can find some online activities or create your own ones. Finally, look for someone to check your lesson and put it into practice during your practicum.

Teaching Training Professional Approach.

Objective: To have the student-teachers reflect on the methodological structure of a listening lesson.

Timing: 20 minutes

Activity

1. Reflect about the methodological structure of the listening lesson delivered by the teacher, and point out the main strengths and areas of improvement. Consider the following aspects:

   a) Teaching Approach Followed:
   - ✓ Top-Down
   - ✓ Bottom-up
   - ✓ Interactive

   b) Stages of the lesson

   c) Types of activities in each stage, sub-skills, procedures.

2. Design the objective of the lesson considering: skill, content and educative intention.

Course: Non-university Teacher Education Crash Course 2nd year Students at "Felix Varela" Pedagogical Campus

Subject: English Foreign Language Methodology for Secondary School 3

Unit: 2 The teaching of the receptive skills. Reading comprehension.

Lesson: Reading Lesson

Skill: summarizing

Teaching Aids: Printed reading text, Dictionary.

Approach: Communicative Approach. (top-down approach)

Timing: 85 minutes

Objective: To model a reading lesson in order to develop insights of the professional approach while summarizing an article about noise pollution in Cuba, and raising consciousness about the importance of preserving our audio environment.

Warm up

The teacher first of all organizes the classroom, after greets his/her students and finally calls the roll and he orients the students that they should take down notes on the procedures followed by the teacher while delivering the lesson so as to reflect on good practices for this kind of lesson in FLT.

Follow up:

Before Reading Activities

Task 1

Sub-skill: Predicting

Objective: To activate the students´ prior knowledge.

Timing: 10 minutes.

Procedures: The teacher presents the following pictures and has the students predict what the reading is about, so as to activate their prior knowledge and asks the students if they can guess what the text will be about and what issues they will encounter in it.

Activity

Take a look at the following posters and try to say what the words and images in them suggests to you.

Questions

1. Why is the word **<u>pollution</u>** bigger than the other words?
2. What do the words **<u>Noise and Pollution</u>** suggest to you?
3. Where do you usually listen to or see these words?
4. Have you talked about pollution in some other subjects?

While reading activities

<u>Task 2</u>

Objective: To check students´ predictions.

Timing: 5 minutes

Procedures: The teacher asks the students to go throw the reading text in no more than 5 minutes, to check if their predictions were right or wrong.

<u>Activity A</u>

Read the text to check if your predictions were right or wrong. Back up the wrong ones.

Task 3

Sub-skill: Identify the general idea.

Objective: To get the gist of the text.

Timing: 10 minutes

Procedures: The students read the text once again and they have to select its general idea.

<u>Activity B</u>

Read the text and select among the following ideas the one that is central in the text.

- ✓ The media role on struggling against audio-pollution
- ✓ The importance of knowing and acting against audio-pollution
- ✓ The issue of noise in Cuba

<u>Task 4</u>

Sub-skill: To recognize the writer's purpose and attitude.

Objective: To get information that is not explicitly expressed.

Timing: 10 minutes

<u>Activity C</u>

Read the text again and select the author´s purpose.

- ✓ To persuade the readers about this topic
- ✓ To expose the present situation regarding this topic

✓ To describe what is happening in Cuba regarding the topic

a) Support your choice according to the text

Task 5

Sub-skill: To recognize and recall specific details.

Objective: To discriminate relevant information from irrelevant one.

Timing: 15 minutes

Procedures: The teacher asks the students to read the text so as to discriminate the relevant information and to support the false ones.

Activity D

Read the article and guess whether these statements are true or false. Substantiate false ones

♦ __ Noise is one of the most common environmental issues in Cuba.

♦ __ Cuban media platforms are not dealing with this standpoint.

♦ __ Audio-pollution is an issue that concerns to everybody.

♦ __ Talking to the people is enough to get aware about this issue.

Activity E

Read the text again and find out a synonym for the following words, and use them to

♦ Issue

♦ Standpoint

♦ Prone

After reading activities

Task 6

Sub-skill: To summarize and take down notes (of relevant points)

Objective: To summarize the relevant points of the text

Timing: 15 minutes

Procedures: The teacher asks the students to read the text so as to summarize the relevant information

Activity:

Now that you have read about audio-pollution in Cuba do the following tasks: Write a summary in no less than 50 words.

Independent work

Project Work: Create a dosimeter to measure the noise for a science competition for young innovators that will take place at the municipality.

Teaching Training Professional Approach

Objective: To have the student-teachers reflect on the methodological structure of a reading lesson.

Timing: 20 minutes

Activity

Reflect upon the methodological structure of the reading lesson delivered by the teacher. Consider the following aspects:

a) Teaching Approach Followed:

- ✓ Top-Down
- ✓ Bottom-up
- ✓ Interactive

b) Stages of the lesson

c) Types of activities in each stage, sub-skills, procedures.

3. Design the objective of the lesson considering: skill, content and educative intention.

4. State strengths and suggestions for this lesson.

Reading Text

¨An issue that affects everyone¨

The issue of noise in Cuba has been one of the most popular and repetitive on a daily basis, for a while now, because of contemporary Cuban life.

Different media platforms have made echo of its effects and are dealing with this subject from an environmental pollution standpoint (something which was never done up until a few years ago), taking into account the fact that experts classify it as the fourth pollution agent after water pollution, air pollution and solid waste pollution.

Resizing an old problem, this concerns everyone because it affects all of us in one way or another: in neighborhoods, on the street, in workplaces, the majority of us are prone to becoming victims of noise. However, even though it is important to talk about this subject (especially from an educational standpoint), talking and talking about it is not enough.

CONCLUSIONS.

1. The diagnosis process carried out proved that despite the efforts and transformations taken in the environmental education, still there is a lack of knowledge, skills , habits and mainly acting ways to protect the environment, particularly regarding audio pollution.

2. The theoretical and methodological judgments that support environmental education are based on updated information about the crisis that characterizes today's world, with its major conflicts, of both natural origin and and social character and it has a direct impact on the mission and roles to be fulfilled by education anywhere in the world.

3. Foreign language teachers can contribute to raise conciousness to preserve the environment in the young generations if alternative activities are designed and put into practice to promote knowledge, skills, habits and actions in favor of a better world.

4. The most important reflection arisen during the process of implementation and recording of the activities and lessons regarding the development of students' conciousness is that to solve the problem is not an easy task because it should involve not only teachers and students, but also the family, the mass and the social organizations of the school and the community, the local and national government.

5. The main transformation that took place during the implementation of the activities and lessons that conform a handbook for FL Teachers regarding the fact that students became aware of the importance of preserving the audio space, they widen their knowledge and they start being active in this field, as future educators who can attain long lasting results in the future generation.

6. The final proposal, an audio-pollution handbook contributes to raise environmental awareness in this kind of students. It enhances creativity and active roles about environmental protection and it offers good activities and lesson plan models intended to raise audio-pollution awareness in the students.

SUGGESTIONS.

1. To socialize the results of this research with the main actors in the community and university campus so as to gain higher levels of conciousness about this environmental issue.

2. To socialize the final result "Audio-pollution Handbook" for Foreign language teachers so as to motivate educators to be active on this environmental issue.

3. To continue researching on audio-pollution as an environmental issue which hinders the students' intelligibility during the teaching learning process in Foreign Language lessons.

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Annexes

Annex 1.

SURVEY 1

Objective: To corroborate the students' knowledge and awareness about environmental pollution and more specifically about noise pollution.

Dimensions:

1. **Knowledge about what environmental and noise pollution is.**

2. **Awareness of the consequences of noise pollution.**

3. **Attitudes towards environmental and noise pollution**

Estimado alumno:

Como estudiante de 5to año de Lenguas Extranjeras de la Facultad de Educación Media de la Sede "Félix Varela Morales" se está desarrollando una investigación orientada a la formación medioambiental de los estudiantes. La mayoría de las respuestas son de selección y puedes marcar todas las opciones que consideres necesarias para una respuesta correcta

Quisiéramos que respondieras con la mayor sinceridad posible. Sus respuestas son confidenciales por lo que tiene toda la libertad para responder.

Anticipadamente le agradecemos su atención

Gracias por su colaboración

Datos Generales: Edad _____ Sexo _____ Grado escolar _____

1. Yo considero que:

- Medioambiente es _____

- Contaminación ambiental es _____

2. Marca con una cruz cuáles de los elementos que te relacionamos a continuación son problemas ambientales.

 a) Degradación de suelos ___

b) Pérdida de bosques ___c) Disminución del número de especies vegetales y animales ___

d) Falta de educación ambiental ___e) Deterioro de la vida marina y costera ___

f) Agotamiento y contaminación del agua ___

 g) Ruido ___   h) Contaminación atmosférica ___

3. Consideras el ruido como un contaminante del medio ambiente. Sí, no por qué.

4. En mi centro de estudios existe contaminación acústica.

si__ probablemente si__ indeciso__ probablemente no__ no__

5. El cuidado del entorno le compete a: la dirección de la escuela____ a los trabajadores ____

a los vecinos____ a mí ____ a todos ___

6. La escuela participa en mi formación medioambiental

si__   probablemente si__   probablemente no__   no___

7. Diga si su escuela posee un medio ambiente acústico favorable, no dañino para los estudiantes.

Interview to the teacher that guides the group

Objective: To know about the role given to the environmental education in the educative strategy for the group.

Estimado profesor, como alumno ayudante necesito de su cooperación para la realización del trabajo de diploma, para ello es muy importante que usted responda las siguientes preguntas:

1.   ¿Qué actividades se realizan en el curso de Nivel Medio relacionadas con el cuidado del medio ambiente?

a)   ¿Dónde se realizan las actividades dentro o fuera de la Sede Universitaria?

2.   ¿Son los alumnos consientes de la necesidad de cuidar el medio ambiente? Sí, No, ¿Por qué?

3.   ¿Tiene el curso diseñada alguna estrategia para que los alumnos adquieran conciencia sobre la importancia de cuidar el medio ambiente? Sí, no, ¿Cuál?

4.   ¿Los profesores relacionan los contenidos de las asignaturas con los de medio ambiente? Sí, no, ¿Cómo?

a)   ¿Cuáles contenidos?

5) ¿Se preparan metodológicamente los estudiantes para acerca del cuidado del medioambiente poder influir en sus futuros estudiantes?

6) ¿Ha Ud. constatado que exista alguna preparación en sus estudiantes para la lucha contra la contaminación acústica?

7) ¿Cree Ud. que el actuar diario de sus alumnos contribuye a proteger el espacio sonoro y luchar contra la contaminación acústica?

8) ¿Conoce Ud. sí alguna organización de masas u otro tipo ha trabajado acciones relacionadas con la protección del medioambiente acústico en la Sede o en la comunidad?

<u>**Annex 3**</u>

Document Analysis:

Objective: To know about what is already established in the English syllabi about the environmental education as a global issue.

Documents to be analyzed:

1. The Integrated English Practice syllabus of the Non-university teacher education crash course.
2. The Integrated English Practice Textbook 1.
3. The syllabus of "English Language Teaching Methodology in Secondary School III" for Non-university teacher education crash course
4. Unit plans for the Non-university teacher education crash course 2nd year students.
5. The educational strategy.

Indicators:

1. Objective, contents and guidelines related to the environmental education.
2. Activities designed to develop environmental education.
3. Selection from the unit plans the units that best permit the development of environmental education, specifically to noise pollution.

<u>**Annex 4**</u>

Participant Observation:

Objective: To corroborate the students´ awareness, attitudes and capacity building about environmental and noise pollution.

Categories:

- Awareness of the consequences of noise pollution.
- Demonstrated values towards audio pollution.
- Skills and capacity bulding while planning listening and reading lessons to raise students' awareness about audio pollution

Observation guide:

Observable issues	Often	Sometimes	Rarely
1. The students' behaviors express that they are aware of the consequences of audio pollution.			
2. The students are able to recognize values towards audio pollution through the teaching learning process they participate in.			
3. The students are able to recognize values towards audio pollution through the teaching learning process they are getting ready to conduct at Secondary Schools while planning lessons for this kind of students.			

4. The students are ready to demonstrate values towards audio pollution with their everyday actions.			
5. The students are ready to demonstrate values towards audio pollution with their everyday actions.			
6. The students show their development of skills and capacities while planning listening and reading lessons while raising awareness about audio pollution as a XXI century problem.			
7. The students get actively involved in creating activities to fight against audio pollution in campus.			
8. The students show positive verbal and non-verbal signs while implementing the activities created by themselves or the researcher to raise awareness in the young generations.			

SURVEY 2.

➢ **Objective:** to know the students' opinions about the proposal that is built up.

Estimado alumno:

Como estudiante de 5to año de la carrera de Lenguas Extranjeras de la Facultad de Educación Media Sede "Félix Varela Morales" te presento la propuesta desarrollada como parte de la investigación orientada a la formación medioambiental de los estudiantes. La mayoría de las respuestas son de selección y puedes marcar todas las opciones que consideres necesarias para una respuesta correcta

Quisiéramos que respondieras con la mayor sinceridad posible. Sus respuestas son confidenciales por lo que tiene toda la libertad para responder.

Anticipadamente le agradecemos su atención

1. La propuesta final me resulta:
   a. -----Interesante
   b. -----Motivante
   c. ----- Actualizada
   d. ----- Poco motivante
   e. ----- Novedosa
   f. ------ Poco creativa

2. Considero que como estudiante participé en la construcción de la propuesta de manera:
   a. __ activa
   b. --- pasiva
   c. --- creativa
   d. --- receptiva
   e. --- ajena

3. Considero que mi participación en la propuesta me ayuda en mi formación profesional:
   a. __ Mucho
   b. __ Poco
   c. __ Algo

<u>**Annex 6**</u>

Peer-Observation:

Objective: To attain feedback about the effectiveness of the lessons regarding knowledge, awareness and attitudes on noise pollution.

Dimensions:

- Knowledge on noise pollution
- Awareness of the consequences of noise pollution.
- Attitudes towards environmental and noise pollution.

Guía de observación:

Positive Aspects regarding the following topics:

1. Contribution to widen the students' knowledge on noise pollution
2. Behavioral expressions expressed that students are aware of the consequences of audio pollution.
3. Recognition of values towards audio pollution through the teaching learning process by the students.
4. Demonstration of values towards audio pollution with the students' everyday actions.
5. Recognition of values towards audio pollution through the teaching learning process the students are getting ready to conduct at Secondary Schools while planning lessons for this kind of students.
6. Development of skills and capacities while planning listening and reading lessons while raising awareness about audio pollution as a XXI century problem
7. Involvement of the students in creating activities to fight against audio pollution in campus.

8. Show of positive verbal and non-verbal signs while implementing the activities created by themselves or the researcher to raise awareness in the young generations.

Suggestions to improve the process and results.

<u>**Annex 7**</u>

<u>**Course:**</u> Non-university Teacher Education Crash Course 2nd year Students at "Felix Varela" Pedagogical Campus

<u>**Subject:**</u> Teaching English Foreign Language Methodology for Secondary School 3.

<u>**Unit 1:**</u> The teaching of the receptive skills. Listening comprehension.

<u>**Lesson 4:**</u> Modeling a listening lesson

Approach: Communicative Approach. (top-down approach)

Teaching Aids: Recording, digital bilingual dictionary

Timing: 85 minutes

Objective: To understand a monologue about noise pollution while listening to a recording, developing consciousness about the importance of preserving our environment and offering a listening lesson model.

<u>**Warm up**</u>

The teacher first of all organizes the classroom, after greets his/her students and finally calls the roll and he orients the students that they should take down notes on the procedures followed by the teacher while delivering the lesson so as to reflect on good practices for this kind of lesson in FLT.

<u>**Follow up:**</u>

Before Listening Activities.

<u>*Task 1*</u>

Sub-skill: Predicting

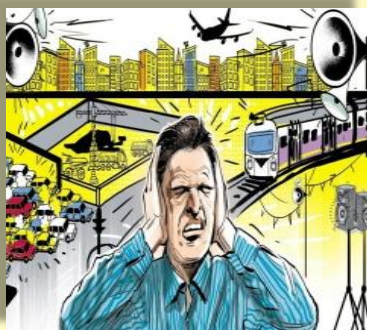Objective: To activate the students´ prior knowledge.

Timing: 10 minutes.

Procedures: The teacher presents the following pictures and has the students predict what the recording is about.

Activity

Look at the pictures which may relate to what you will read about.

♦ What do you expect to listen to when you look at the pictures?

While Listening Activities

Task 2

Objective: To check students´ predictions.

Timing: 10 minutes

Procedures: The teacher asks the students to listen to the text in no more than 3 minutes, to check if their predictions were right or wrong.

Activity

Listen to the recording to check if your predictions were right or wrong. Back up the wrong ones.

Task 3

Sub-skill: Identify the general idea.

Objective: To get the gist of the recording.

Timing: 10 minutes

Procedures: The teacher plays the recording once again and has the students select its general idea.

Activity

Listen to the recording again, and select from the following, the title that best suits the text.

- ♦ Noise
- ♦ Noise comes from music
- ♦ Where noise comes from
- ♦ Noise is everywhere
- ♦ Noise affects health

Task 4

Sub-skill: Identifying relevant points, rejecting irrelevant information.

Objective: To discriminate relevant information from irrelevant one.

Timing: 15 minutes

Procedures: The teacher plays the recording, and has the students identifying the relevant information from the suggestions given.

Activity

Listen to the recording once again and tick the ideas that are relevant in it. Be ready to support your choice.

- ♦ It is impossible to find a place without noise.
- ♦ People are eager to lessen the quantity of noise they hear.
- ♦ People feel nice with the noise around them.
- ♦ Most people are not aware of the quantity of noise they are exposed to.

Task 5

Sub-skill: Guessing at unknown words or phrases without panicking.

Objective: To have the students guess phrases that are relevant for understanding the recording.

Timing: 20 minutes

Procedures:

- ♦ The teacher asks the students to listen to the whole recording to fill in the blank spaces with the phrases on the list.
- ♦ Play the recording as many times as needed.
- ♦ Have the students listening to the whole recording while reading the script to check if their answers were correct.

Activity A

Listen to the recording and complete the blank spaces using the phrases from the list.

THE ACTIVITIES

LISTENING GAP FILL

Noise is everywhere. I _____ a place on Earth where you can't hear anything. I live in the city, so noise is everywhere. Sometimes _____. I really want to have a button _____. It's amazing how much noise there is around us. We usually _____ about it. Listen now to the noise around you. Cars, computers, music, people talking. It's strange _____ in the past few decades, people have been talking about noise pollution. That's a really good description. Noise is _____. It's stuff that makes our surroundings unpleasant. I _____ is any kind of noise that is good noise. The very word 'noise' has a negative meaning. But if you say sound, it has a different meaning. I love the _____ laughing.

<u>Activity B</u>

Read the script to check the answers.

> Noise is everywhere. I bet there isn't a place on Earth where you can't hear anything. I live in the city, so noise is everywhere. Sometimes it gets to me. I really want to have a button to turn it off. It's amazing how much noise there is around us. We usually never even think about it. Listen now to the noise around you. Cars, computers, music, people talking. It's strange to think that in the past few decades, people have been talking about noise pollution. That's a really good description. Noise is quite often pollution. It's stuff that makes our surroundings unpleasant. I wonder if there is any kind of noise that is good noise. The very word 'noise' has a negative meaning. But if you say sound, it has a different meaning. I love the sound of babies laughing.

<u>After listening activities.</u>

Activity.

Vocabulary Extension.

This activity was planned to develop the students' vocabulary.

Choose key words from the text, which meanings require, clarification and add them to your vocabulary list or notebooks.

Independent work.

Based on the content studied in methodology plan your own English lesson on noise pollution. You can find some online activities or create your own ones. Finally, look for someone to check your lesson and put it into practice during your practicum.

Teaching Training Professional Approach.

Objective: To have the student-teachers reflect on the methodological structure of a listening lesson.

Timing: 20 minutes

Activity

5. Reflect about the methodological structure of the listening lesson delivered by the teacher, and point out the main strengths and areas of improvement. Consider the following aspects:

d) Teaching Approach Followed:
   ✓ Top-Down
   ✓ Bottom-up
   ✓ Interactive

e) Stages of the lesson

f) Types of activities in each stage, sub-skills, procedures.

6. Design the objective of the lesson considering: skill, content and educative intention.

THE DEVELOPMENT OF READING COMPREHENSION AS A RECEPTIVE SKILL IN THE NON-UNIVERSITY TEACHER EDUCATION CARSH COURSE 2nd YEAR STUDENTS.

Course: Non-university Teacher Education Crash Course 2nd year Students at "Felix Varela" Pedagogical Campus

Subject: English Foreign Language Methodology for Secondary School 3

Unit: 2 The teaching of the receptive skills. Reading comprehension.

Lesson: Reading Lesson

Skill: summarizing

Teaching Aids: Printed reading text, Dictionary.

Approach: (top-down approach)

Timing: 85 minutes

Objective: To summarize an article about noise pollution in Cuba, while developing consciousness about the importance of preserving our audio environment.

Warm up

The teacher first of all organizes the classroom, after greets his/her students and finally calls the roll and he orients the students that they should take down notes on the procedures followed by the teacher while delivering the lesson so as to reflect on good practices for this kind of lesson in FLT.

Follow up:

Before Reading Activities

Task 1

Sub-skill: Predicting

Objective: To activate the students´ prior knowledge.

Timing: 10 minutes.

Procedures: The teacher presents the following pictures and has the students predict what the reading is about, so as to activate their prior knowledge and asks the students if they can guess what the text will be about and what issues they will encounter in it.

Activity

Take a look at the following posters and to try to say what the words and images in them suggests to you.

Questions

5. Why is the word **pollution** bigger than the other words?
6. What do the words **Noise and Pollution** suggest to you?
7. Where do you usually listen to or see these words?
8. Have you talked about pollution in some other subjects?

While reading activities

Task 2

Objective: To check students´ predictions.

Timing: 5 minutes

Procedures: The teacher asks the students to go throw the reading text in no more than 5 minutes, to check if their predictions were right or wrong.

Activity A

Read the text to check if your predictions were right or wrong. Back up the wrong ones.

Task 3

Sub-skill: Identify the general idea.

Objective: To get the gist of the text.

Timing: 10 minutes

Procedures: The students read the text once again and they have to select its general idea.

Activity B

Read the text and select among the following ideas the one that is central in the text.

✓ The media role on struggling against audio-pollution
✓ The importance of knowing and acting against audio-pollution
✓ The issue of noise in Cuba

Task 4

Sub-skill: To recognize the writer's purpose and attitude.

Objective: To get information that is not explicitly expressed.

Timing: 10 minutes

Activity C

Read the text again and select the author´s purpose.

✓ To persuade the readers about this topic

✓ To expose the present situation regarding this topic

✓ To describe what is happening in Cuba regarding the topic

d) Support your choice according to the text

Task 5

Sub-skill: To recognize and recall specific details.

Objective: To discriminate relevant information from irrelevant one.

Timing: 15 minutes

Procedures: The teacher asks the students to read the text so as to discriminate the relevant information and to support the false ones.

Activity D

Read the article and guess whether these statements are true or false. Substantiate false ones

♦ __ Noise is one of the most common environmental issues in Cuba.

♦ __ Cuban media platforms are not dealing with this standpoint.

♦ __ Audio-pollution is an issue that concerns to everybody.

♦ __ Talking to the people is enough to get aware about this issue.

Activity E

Read the text again and find out a synonym for the following words, and use them to write a summary in no less than 50 words.

♦ Issue

♦ Standpoint

♦ Prone

After reading activities

Now that you have read about audio-pollution in Cuba do the following tasks:

Teaching Training Professional Approach

Objective: To have the student-teachers reflect on the methodological structure of a reading lesson.

Timing: 20 minutes

Activity

Reflect upon the methodological structure of the reading lesson delivered by the teacher. Consider the following aspects:

a) Teaching Approach Followed:
- ✓ Top-Down
- ✓ Bottom-up
- ✓ Interactive

e) Stages of the lesson

f) Types of activities in each stage, sub-skills, procedures.

7. Design the objective of the lesson considering: skill, content and educative intention.

8. State strengths and suggestions for this lesson.

Independent work

Project Work: Create a dosimeter to measure the noise for a science competition for young innovators that will take place at the municipality.

Reading Text

¨An issue that affects everyone¨

The issue of noise in Cuba has been one of the most popular and repetitive on a daily basis, for a while now, because of contemporary Cuban life.

Different media platforms have made echo of its effects and are dealing with this subject from an environmental pollution standpoint (something which was never done up until a few years ago), taking into account the fact that experts classify it as the fourth pollution agent after water pollution, air pollution and solid waste pollution.

Resizing an old problem, this concerns everyone because it affects all of us in one way or another: in neighborhoods, on the street, in workplaces, the majority of us are prone to becoming victims of noise. However, even though it is important to talk about this subject (especially from an educational standpoint), talking and talking about it is not enough.