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SUMARIO • SUMMARY • RESUMO

Editorial

Teacher training and Information and Communication Technologies (ICTs) are recurrent research topics in today's educational landscape. MLSER is enriched with contributions from authors from many different countries, a trait that can be seen in each of them. This is to say, we are facing a trend that is spreading throughout the world's educational systems which shows how education is increasingly committing itself to innovation and change.

The first article implements a methodological strategy based on guided research into the suitability of physics laboratory practices, showing how technological advances require the development of scientific thought with which students can access and transform their environment.

Its main conclusion is that the strategy developed is innovative for students by proposing guiding and didactic elements for the teaching of science, bringing them closer to today's new technological and scientific developments.

There is no question that teacher training favors inclusive and quality education, as this enables the use of innovative techniques and methodologies applied to learning difficulties. The following article addresses this issue in the Brazilian context and does so through a transversal study and interview as a way of data collection. The results show how teachers are concerned about the quality of education and how they look to other professionals for information and training within continuous and postgraduate courses.

The third article addresses teachers' preparedness in ICTs, in this case applied to the training of NCOs from the Barranquilla Naval School in Colombia. The research is carried out from the perspective of teachers, the head of the technology program, the cabin crew, the Department of Statistics, and the Department of Telematics. The results point to proper training in ICT and ongoing teacher training, which is a clear sign of teacher awareness.

The following article looks at digital and ICT topics within the field of Mathematics, aimed at specifying the level of digital empowerment and the development of mathematical skills in the teacher's induction training for this subject. A qualitative methodology is followed and the implications on the use of digital resources by teachers are evaluated. Most teachers' induction training has considerable digital empowerment, which is essential for learning mathematics and developing skills in reasoning, problem solving, mathematical modeling and communication during the teacher's education in mathematics.

There is a notable change in the following subject matter, something typical of an open journal such as the MLSER, in which any educational research subject that may be of interest is accepted. In this case, it addresses how the Senegalese education system is organized and how, following World War II, school policy was dominated by the ideology of assimilation, which has been largely inherited to this day. To change this picture, it is necessary to analyze and investigate how educational guidance laws and their written messages are used in educational programs and official instructions.

This issue of the MLSER ends with a case study of symphonic bands from Caldas (Colombia), where the relationship between musical aptitude and school performance is tested. To do so, a methodology with a quantitative approach is used that

showed the existence of positive correlations between all the variables that evaluate musical aptitudes.

Antonio Pantoja Vallejo
Editor Jefe / Editor in chief / Editor Chefe

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FORMALIZATION OF DANCE EDUCATION IN PARAGUAY

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Abstract. The aim of this work is to describe the process by which dance acquired its place in the formal educational structure of Paraguay (1964-1977). Paraguay is one of the few countries where the study of dance is carried out through a single National Program. The program is implemented in academies, which are enabled to grant the title of High School Teacher of Dance, officially endorsed by the Ministry of Education and Science. This article also explains the process of Paraguayan Dance's systematization, whose main purpose was the preservation of the national identity through its dances as Polca Paraguaya, Chopí, Palomita, and London Karapé, among others. The formalized structure additionally facilitates the transmission of Paraguayan traditional dances nationally and internationally. In order to achieve these objectives, the qualitative research consisted of document analysis and personal interviews as the main methods of data collection. For document analysis, there is an exhaustive body of laws, official resolutions, and programs related to dance education in Paraguay. The interview portion included two of the most renowned teachers in the field of dance as part of the formalization process in Paraguay. As a result, a detailed description of dance formalization in Paraguay was obtained. Thus, the formalization of dance in Paraguay is described in detail, concluding that unification of the program at national level facilitates its implementation in academies allowing students from different parts of the country to access the formation of High School Teachers.

Keywords: Dance education, teacher training, systematization and formalization of study plans, legislation in Paraguay.

FORMALIZACIÓN DEL ESTUDIO DE LA DANZA EN PARAGUAY

Resumen. El objetivo de este trabajo es describir el proceso a través del cual la danza adquirió su lugar dentro de la estructura educativa formal de la República del Paraguay (1964-1977), ya que se trata de uno de los pocos países donde el estudio de la danza es realizado mediante un único programa nacional, implementado en academias, públicas o privadas, que tienen la potestad de otorgar el título de Profesorado Superior reconocido y avalado oficialmente por el Ministerio de Educación y Ciencias. Expone, además, dentro del mismo proceso, la manera en la que se llevó a cabo la sistematización de la danza paraguaya,

cuya finalidad principal fue la preservación de la identidad nacional a través de sus danzas (Polca Paraguaya, Chopí, Palomita, London Karapé, entre otras); teniendo así la posibilidad de trasmitirlas y difundirlas a nivel nacional e internacional. Para la consecución estos objetivos se realiza una investigación cualitativa utilizando como principales métodos de recolección de datos el análisis de documentos y la entrevista. Se hace una revisión exhaustiva de leyes, resoluciones, programas y afines relacionados con la pedagogía de la danza en Paraguay. Son entrevistadas dos de las maestras más destacadas de la danza en ese país que han sido pieza clave en el citado proceso. Así, queda descrita en detalle la formalización de la danza en Paraguay, concluyéndose que la unificación del programa a nivel nacional facilita su implementación en academias particulares permitiendo a los estudiantes de diferentes puntos del país acceder a la formación de Profesorado Superior.

Palabras clave: Educación en danza, formación del profesorado, sistematización y formalización de planes de estudio, legislación en Paraguay.

Introduction

The question about the origin of artistic capacities, whether the artist is born or made, has always been present in the questions that both artists and professionals in the teaching of the arts ask themselves. Woods (1998), answers this question from the teaching perspective: if it can be analyzed in scientific terms, it can be imparted, that is, it can be built on knowledge, accumulate it and increase it. This response can be transferred to art, and therefore to dance.

Dance, like any other artistic manifestation, must be studied and in turn transmitted to other people, constantly improving and evolving during the process, drawing on the experience of each of the participants. Teaching is part of science, since it is a rational activity linked to general principles and laws that can be deciphered through scientific research.

Furthermore, as research and knowledge in the field advances, teaching can become more systematic, structured and stable. Following the reasoning explained in the previous paragraph, if the same characteristics of teaching can be applied to art and dance, then it is possible to conclude that both are feasible to be taught.

In Paraguay, unlike most countries, dance teachers are trained through a single national program that integrates and unifies dance teaching and learning. This program is taught in private academies, registered and enabled by the General Directorate of Education in Art. One of the distinguishing characteristics is that the aforementioned program accompanies the development of the individual from the initial stage to the professional one that culminates in obtaining the title of Higher Professor of Dance awarded by the Ministry of Education and Sciences.

How is the training of dance teachers in Paraguay, which allows private academies to grant an official degree endorsed at Ministerial level? In order to approach dance education in Paraguay, we have developed a descriptive study, since it "seeks to specify important properties, characteristics and traits" (Hernández, Fernández and Baptista, 2010, pp. 80) about it. In addition, it is necessary to understand the systematization process and how it is used in teaching, so these topics are covered in broad strokes.

Systematization for the teaching of art

The investigation of artistic education, especially focused on the teaching of the arts, is generally made up of practice and theory. It is sought through theory and implications are found for practice; or there is a reflection on practice through the optics

of theory. Currently both are closely linked. Restrepo and Tabares (2000) express that the process of systematizing educational experiences responds to the theoretical foundation that supports educational research, "it is a process that seeks to articulate practice with theory" (Ramos and Vidal, 2016, pp. 54); In addition, the aforementioned process explores and investigates contexts and subjects to achieve details, stories and descriptive narratives in order to explain the subjective reality of the action (Barbosa, Barbosa and Rodríguez, 2013, pp. 87).

The curricular conception of the study of arts in formal education proposes in the school stage a literacy of the individual through the knowledge of the elements and the organization of codes, resources and techniques, as well as the artistic manifestations of the environment; In art education, students are required to master the elements that make up this field through specific training.

The concept of systematization has been adopted by educational agents as a contemplation of their own knowledge based on practice: “The state of the art is to investigate from the point of view of 'going in the footsteps' of the field of knowledge that is intended to deepen, allowing determine how this has been treated and what the trends are ”(Barbosa, Barbosa and Rodríguez, 2013, pp. 89). Art, however ephemeral and intangible it may seem, no matter how many feelings it expresses and that is closely linked to each individual's own perception, is made up of materials (physical or intangible) through which the artist expresses himself. Sentiment is necessary and essential in a work of art; it is the artist's deepest expression and the way the public perceives the work. But how is a work perceived? It is perceived from knowledge. People feel cognitively. Everything starts from knowledge (Arnaud, 1981, pp. 31). For his part, Gardner (1994) supports this same idea, noting that “human artistic ability focuses first and foremost as an activity of the mind, as an activity that involves the use and transformation of various kinds of symbols and systems of symbols” (pp. 30).

If it can be known, it can be felt. If it can be analyzed, it can be taught. In this way, dance and its teaching can be built through the accumulation of knowledge. Knowledge that can be imparted in dance schools, institutes and academies, using curricular programs that facilitate teaching-learning and can develop the necessary skills for the creation of future dance teachers. The component elements of art such as technique, the symbol system or its own language can be systematized and taught through curricular programs created for this purpose.

Through systematization, no attempt is made to teach dance as something mechanical, since its nature starts from the essence of the human being; But they do want to combine knowledge and techniques that help the training of dance professionals from the beginning. The technique can be taught to defy gravity using the centripetal and centrifugal forces, balance, balance, inertia; in short, to combine body movements with mechanical physics. However, what each dancer feels and expresses is unique and individual, it is closely linked to their own self, their experiences, their feelings, their knowledge (Dewey, 2008).

This unique thing cannot be taught, it is up to each student to discover it on stage and in each class, unite their experiences with the theoretical basis and transmit it through pedagogy to future disciples, thus achieving the training of new professionals in dance.

Systematization for the teaching of dance

Dance is a physical-aesthetic-intellectual art, through which ideas and feelings are transmitted with the movement of the body in a given space and time. The sentence of

the philosopher Plato, "good education is what gives the body and soul all the perfection and all the beauty of which they are capable" (Ballén, 2010, pp. 37) is perfectly suited to the teaching of dance, through which students are provided with the technique of aesthetic movement that will be transformed into a message. Teaching to dance "implies the transformation of knowledge more than the mere application of known routines" and it has a partner "the idea of guided purposeful thinking, that is to say with an end" (Keating and Sasse, 1996, cited by Lindo, 2016, para. 17).

Similarly, teaching a dance class is not a demonstration of the teacher's qualities so that the students try to follow him by copying his movements; It is about their being able to learn by concentrating on their own representation of movement. It is about providing the necessary tools -technique- so that each student can express himself consciously through movement, within a time and a space.

Dance, in addition to being an artistic expression and a cultural manifestation, is a physical activity that requires solid training on the part of those who will be in charge of teaching. It is essential that educators, in addition to technical knowledge in the area, have a well-established pedagogical base so that they can apply the appropriate methodological mechanisms in the training of new professionals (Lindo, 2014).

One of the pioneers in the systematic teaching of dance was Margaret Newall H'Dubler, who, through her knowledge as a biologist, placed dance within a scientific framework and established the first university career in dance at the Department of Education Physics from the University of Wisconsin. In this regard, Moore (1975) expressed that, in his classes, Newall:

> He explored in detail with his students the natural movements of the body, as well as the basic vocabulary of dance. In carefully focused movement experiences, he helped them discover intellectually, physically, and emotionally the facts, theories, and philosophies he was synthesizing. She helped them find the magic of dance in their own body structures and how they moved in space and time, rather than in the body of a model external to themselves (pp. 12-13).

Dance as an academic discipline has a coherent body of knowledge formed by its conceptualization and its elements, its cultural and multisensory dimensions, its meanings, its progressive learning, its non-verbal communication, among others (Hanna, 2008, pp. 492). For this reason, it can and should be systematized through training programs and processes.

Dance teaching with an emphasis on professional training is generally taught in public dance academies and conservatories, through which a medium or higher degree is offered. Private dance academies generally do not offer an official degree (Fuentes, 2008, pp. 12); however, in Paraguay, yes, as long as they are enabled for this purpose.

Dance education in the Republic of Paraguay has three characteristics that make it very peculiar. The first is that it unifies and systematizes dance teaching through a single national program. The second is that the program covers all the average education of students, from 7 to 18 years old, accompanying formal education. The third characteristic is that said program is taught in private dance academies authorized by a government agency under the Ministry of Education and Sciences, which officially validates the title of dance teacher awarded by the academies, throughout the national territory.

In several countries the teaching of dance generally begins in official schools from the age of 12, when it is believed that the individual already has a developed awareness of class work and of his own body. At this level, it is assumed that the dancer already had

a previous preparation because he knows how to move and handle himself within a typical class; therefore, it is assumed that he has prior knowledge of what he is doing, but the level of compression that he has on his body, on the way in which the steps are carried out and the consequences that these might have on your integrity is not exactly known physical. It begins to shape it in pure technique and in expressions and interpretation on stage, without taking into account that the students have a very heterogeneous training, which could make them susceptible to injury (Ávila, 2015).

Dance has an intellectual dimension, a physical dimension and an emotional dimension (Moore, 1975; Quintana, 2019). Therefore, what happens in the body internally, its relationship with space and with the mechanical forces with which it interacts through a vast knowledge in anatomy and epistemological bases must be taught. For this it is essential that the individual is in contact with all dimensions of dance from an early age in order to avoid future injuries and create professionals who are aware of their own body and technique. The teacher must recognize that the students training, at a certain degree, is very varied and that if it demands too much from them, without them being aware of the work they are doing, they will be injured; not to mention that they may suffer frustration and experience low self-esteem if their interpretive performance does not reach the ideal (Ávila, 2015). This generally occurs when a student has many physical conditions, but does not have the knowledge and preparation to take control and manage their conditions.

In dance it is not about imitating the teacher and memorizing the steps, but creating an awareness and habit of working on the human body, learning to master it and creating a deep understanding of the art that is being practiced and the technique that is being used for it. Only in this way can professionals with theoretical support and extensive knowledge in the three dimensions of dance be trained: intellectual, physical and emotional. It is necessary to train professionals from the initial level at an early age, who learn to develop their physical and mental capacities, who are deeply motivated and who show interest in both dance practice and theoretical training.

Method

The objective of this work is to describe how the formalization of the dance study in Paraguay was achieved; in addition to understanding and deepening the training of dance teachers. For this, qualitative research is used, based on the socio-critical paradigm. Taking into account the proposal of Latorre, del Rincón and Arnal (2003), a diagnostic investigation-action is proposed, the data is collected and an interpretation is made to meet the proposed objective, passing through a review of the historiographic frameworks, legal and educational of dance in Paraguay.

The instruments and techniques used for data collection are the study and analysis of documents and the interview.

The interview is conducted with two of the most prominent figures in the field of dance in Paraguay, the teachers Lilú Torres and Reina Menchaca. Lilú Torres is one of the pioneers in dance teaching in the country; founder and first director of the Municipal Dance School of the city of Asunción, of the Artistic Training School for National Police Officers and director of a dance academy of her property with 55 years of uninterrupted operation, which has more than 120 professionals trained in it. Reina Menchaca is the director of the academy that bears her name, the first dance academy recognized by the Ministry of Education, with more than 62 years of continuous activity and more than 150

professional graduates. Both teachers have been part of the systematization and formalization of dance in Paraguay.

Results

Historiographical framework: Paraguayan dance

In the second half of the 20th century, between the years 1950 and 1970, a group of people dedicated to the practice of dance in Paraguay emerged. Concerned and in turn occupied by the rescue of the traditional dances of the country, their greatest concern is that these dances are losing validity and being less and less practiced by the people. This is how the first group of professionals in Paraguayan dance was born, dedicated to research and historical, choreographic and musical compilation of traditional dances that were danced on different occasions and places in the Republic of Paraguay (Torres, 2017).

Subsequently, with the systematization of dance and the creation of the first National Paraguayan Dance Program (1977), the compilation of traditional dances was carried out, in order to teach them in dance schools nationwide. This implies the recovery of the dances and their subsequent dissemination among students and society in general. Although some of them have stopped dancing, they remain in the collective memory as heritage and cultural identity of the Paraguayan people through their teaching in the country's dance schools (Menchaca, 2018).

Paraguay is a country of deep-rooted cultural heritage. There are still patron saint festivals where certain traditional dances can be seen dancing. As a country colonized by Spain, Paraguay acquires many of the customs of its colonizer, including the patron saint festivities, but with its own nuance. This also carries over into the repertoire, for example, in dance pieces such as polka; according to Torres (2004) "the polka, is like the orange and the rose, has taken the flavor of the earth, whose vibrations are translated with the lyrical Guaraní accent" (p. 6).

Most of the cities in Paraguay were founded by Jesuits and Franciscans. Those places have their patron saint, in honor of which the patron saint festivals are celebrated. With regard to the festivities in the city of Ybytymí, in honor of the Virgen del Rosario, Professor Lilú Torres (2004) reports that:

> […] In the festivities of the patron saint of that place, the Virgen del Rosario, everything began with the bullfights, later to the sound of Polca María executed by the military band of the Paraguarí regiment, local gallopers and other guests entered. The gallopers danced with a bottle of cane or cognac delivered by the frayed potî, the men who would later dance the traditional dances with them. The bottle was the expense of each of them; once the dance was over, they opened them alive to the patron saint of the town. I still remember the color, the joy of the dancers and the audience who applauded and cheered ... The sounds of Chopi, Solito, Palomita, London Karapé, etc., filled the air and hearts of these people. (p. 21-22).

The vast majority of traditional dances in Paraguay derive mainly from European dances, which, implanted in cultured sociability spaces, were transferred to popular areas, as Celia Ruiz (1974) exposes:

Undoubtedly, Paraguay, like other American countries, received countless European dances from the Old World that were danced in the highest halls of the capital and other cities. This first step of acceptance served as a bridge so that it later spread

throughout our popular sphere. This movement produced transformations of different natures, already motivated by simplification, fusion, or by the creation of new choreographic forms (p. 23).

One of these popular areas was the rural world. During harvests, for example, some traditional dances were danced. All the country houses had a large place in the courtyard, generally under a branch. At harvest time, the locals gathered to work day and night. When tiredness overwhelmed them, the musicians began to play and the local people danced. Everything was commanded by a walking stick, who was in charge of directing both music and dance. This figure was the one who dictated the dances to be performed; And, it is the one that today is transferred to the classrooms and under the image of Paraguayan dance teachers (Torres, 2017).

As pointed out at the beginning of this section, to avoid losing the Paraguayan cultural wealth in the dance area, that first group of researchers compiled most of the traditional dances with their respective music, choreography and clothing, which became part of the first Paraguayan national dance program. This program was based on traditional dances, their steps and figures, to systematize them and create a technique that allows the formal learning and teaching of Paraguayan dance (Menchaca, 2018 and Torres, 2017).

Legal framework for the study and learning of dance in Paraguay

In accordance with the current National Constitution of the Republic of Paraguay, promulgated in 1992, teaching within the Paraguayan territory is free, with no other requirements than suitability and ethical identity (Art. 73). It also states that the organization of the educational system is the essential responsibility of the State and that it will promote secondary, technical and higher education, among others, as well as scientific and technological research (Art. 76). Artistic manifestations are part of the nation's cultural heritage. The same Constitution guarantees that the law will establish a stimulus regime for the introduction and incorporation into the country of the elements necessary for the exercise of the arts and scientific and technological research, as well as for their dissemination in the country and abroad (Art. 83).

Currently in Paraguay there is a National Higher Dance Teacher recognized by the Ministry of Education and Sciences (MEC), with specialties in four dance disciplines: classical, Paraguayan and Spanish. The formal study in dances is carried out in public and private academies enabled by the General Directorate of Education in Art (DGEA), dependent on the Ministry of Education, specifically the Vice Ministry of Higher Education. Dance academies or institutes that wish to provide official titles endorsed by the MEC must be incorporated into it, through their registration with the DGEA. The opening and enabling of these educational centers, as well as their operation, are governed by the aforementioned General Directorate.

The curricular mesh regulates the study of dance from the initial stage from the age of 7 up to the Senior Teacher. It accompanies the formal education structure and ends at the same time as the baccalaureate. Both studies are carried out separately; on the one hand, the technical studies in dance carried out in the accredited academies or institutes, and on the other, those corresponding to formal education carried out in public and private schools and colleges.

Historically in Paraguay, art education has always been supervised by the Ministry of Education, initiating this function according to Decree Law No. 387, of September 20, 1943, where the functions of the ministries are distributed and through Article 4, gives

the Ministry of Education the direction, organization and control of the intellectual, moral and physical education of educational institutions, the control of private educational establishments, the promotion of general culture through libraries, museums, conferences and others adequate means and the protection and conservation of treasures of artistic, cultural and historical value.

On July 9, 1945, according to Decree Law No. 9470, article 12, the functions of the Department of Higher Education and Cultural Dissemination are organized, to which the organization and control activities of extracurricular education institutions correspond, the encouragement, the orientation of cultural activities in general, as well as the attention of the Ministry's efforts with the National University, with the National Council of Culture and Institutions of Higher Education, cooperation with cultural exchange activities inside and outside the country, the study and execution of the necessary measures for the preservation of the historical, artistic and cultural heritage of the nation.

In 1961, through a ministerial resolution, the activities of the academies and institutes incorporated into the Ministry of Education and Worship (MEC)[1] are regulated. Consecutively in the following years, through resolutions and decrees, artistic education is regulated, and within it, dance. Until in 1977 the opening of the art academies is regulated and a commission is integrated that will be in charge of the elaboration of a curricular mesh project and dance program for the academies incorporated into the Ministry of Education and Worship. From there, with the preparation of a Basic Document and the programs in each of the areas, the study and systematization of dance in Paraguay begins through a national plan governed by the Department of Higher Education and Dissemination Cultural.

In 2009, the Department of Cultural Diffusion became part of the structure of the Vice Ministry of Worship under the General Directorate of Worship Institutions and Artistic Training, according to Resolution of the Ministry of Education and Culture.

In 2012, through a Presidential Decree, the Department of Higher Education and Cultural Diffusion was dissolved, creating the Vice-Ministry of Higher Education and the General Directorate of Artistic Education, which became directly dependent on the Vice-Ministry of Education for Educational Management. Finally, with Law 5749/17, the organic letter of the Ministry of Education and Sciences is approved, through which the General Directorate of Education in Art (DGEA) is designated as the body in charge of implementing artistic education programs and projects and their functions are regulated.

Educational Framework

Within the provisions of the Basic Document that regulates the teaching of dance in the national territory, three types of degrees are contemplated: the dancer, the elementary teacher and the high school teacher. The academic level begins from the age of 7 years and is subject to promotional evaluations. Within this level six years of basic preparation and two years of specific preparation are considered. Subsequently, those who decide to dedicate themselves to teaching must take two years for the Elementary Teachers and two more years for the High School Teachers (see Table 1).

[1] Until 1998 the name of the MEC was Ministry of Education and Worship. Later, through the enactment of Law 1264/98, it changed its name to the Ministry of Education and Culture. Currently, as of February 2017 the new name is Ministry of Education and Science.

Table 1

Distribution of courses by age and grade for the study of dance in Paraguay

Grades	Dancers								Elementary teachers		High School teachers	
	Basic preparation						Specific preparation					
Classes	1	2	3	4	5	6	7	8	9	10	11	12
Age	7	8	9	10	11	12	13	14	15	16	17	18

Note: Author's own creation. Based on the information described in the Basic Document for the teaching and learning of dance in the Republic of Paraguay, (1977, p. 17).

The dance area is organized on practical, theoretical and complementary bases. The theoretical bases provide the general theoretical framework for the studies; the practical bases the essential formation of the specialty; and the complementary ones make possible the knowledge of all those elements that will be necessary for those who dedicate themselves to teaching dance.

The dancer's training has a total duration of eight years, six of general preparation and two of specific preparation. The practical basis at this stage is made up of the dance technique in the specialty, for classical and Paraguayan dance. For the Spanish dance area, there are also Spanish regional dances. The theoretical base is made up of Dance History, and the complementary ones by Musical Education, Choreography and Theory for Paraguayan and Spanish dance, only in the case of both specialties. The classical dance area does not consider choreography and theory as complementary subjects.

The elementary school teacher training lasts two years, subject to approval as a dancer. At this stage, the practice of dance teaching and technique form the practical basis, which, in the case of Spanish dance, also includes Spanish regional dances. The theoretical bases incorporate Anatomy and Psychology. The complementary bases are made up of Theatrical Technique, Folk Review, Attire, Makeup and Choreography. At this stage, the presentation of a dissertation is compulsory, consisting of the preparation of two group dances. They can be presented at the same academy or at another institution. This presentation is accompanied by a folder where the planning of the staging is carried out with all the necessary components such as scenery, costumes and lighting, in addition to the written choreography and the musical analysis of each of the selected music.

The High school teacher Training lasts two years, with the approval of the elementary teachers. The practical base is made up of the technique of dance and the practice of teaching. In the case of Spanish dance, in addition to what was previously mentioned, also Spanish regional dances. The theoretical base is made up of Anatomy and Psychology. The complementary bases incorporate the following subjects: Theatrical technique, Folk review, Attire, Makeup, Choreography and Learning technology.

In order to obtain the title of Higher Dance Teacher, once the study plan has been completed with practical, theoretical and complementary subjects, it is compulsory to present a thesis consisting of the preparation and presentation of an argued ballet whose minimum duration must be 20 minutes and whose programming is composed of solo dances, duo, trio and major groups. The presentation of the thesis, in monograph format,

must include the written choreographies, the musical analysis, the set design, the lighting and the costumes that will be used in the staging.

In addition to the study of the technique of each of the dances, from the ninth year -where it is considered that the student begins his pedagogical training in the field of teacher training- the students attend the Course of Complementary Subjects that are taught outside of the academies, in institutions authorized for this purpose by the DGEA, being compulsory for those who wish to apply for the title of higher professor. The curricular grid corresponding to this course is included in the original Basic Document and with programs for each of the subjects, except Didactics, which was attached after the promulgation of the aforementioned document.

At the beginning of dance teacher training, complementary subjects were taught in dance academies under the same program. In the mid-eighties, the Department of Cultural Diffusion, at the request of the dance academies, centralized in one place the Complementary Subjects Course. With resolution 001/02, the same department decides to decentralize the Complementary Subjects Course, authorizing academies, associations or professionals to carry it out, upon request and authorization to the department's management. In the second article of this resolution, it is stated: "the requests must include the name/s of the professional(s) proposed to dictate the subjects, as well as the name of the person proposed as coordinator, curriculum vitae and supporting documents, programs to be developed, broken down by time, content, place where classes will take place, telephone number, days, etc." With the aforementioned resolution, the Department of Cultural Diffusion empowers those in charge of complementary subject courses to have their own programs, without taking into account the existing programs that appear in the Basic Document.

In March 2017, the General Directorate for Art Education proposed to all the coordinators of the Complementary Subjects Course an extension of resolution 001/02, where the hourly loads per subject are increased and the profiles of the teacher of complementary subjects are defined, in addition to regulating the course itself, so that everyone has the same information, structure, infrastructure and uses the official programs approved by the MEC. To enable the course of complementary subjects, the coordinators of these must comply with all the requirements imposed by the General Directorate of Education in Art. The current proposal includes seven subjects common to the three dance areas enabled for the Higher Teaching Staff and three specifics for each of them. Common subjects include Didactics, Psychology, Folklore, Dance History, Anatomy, Theatrical Technique and Makeup. Specific subjects include Attire, Learning Technology, and Choreography; for classical dance, Paraguayan dance and Spanish dance, respectively. In March 2018, the DGEA decided to change the name of Complementary Subjects Course to Pedagogical Subjects Course.

As for higher studies in the area of dance in Paraguay, in addition to the Higher Teaching Staff, there is a degree offered by the following institutions: National University of Asunción, Higher Institute of Fine Arts, UNE (Universidad Nacional del Este) and UPAP (Polytechnic and Artistic University).

Formalization of the dance studio in Paraguay

In 1964, professor Lilú Torres founded the Municipal Dance School of the City of Asunción and opened the doors of her dance academy, both institutions with her own study program, developed by her. In 1974, she was invited by the Director General of the Department of Cultural Diffusion, Dr. Jorge Báez, to set up a working table for the elaboration of the curriculum and national dance program in the areas of Classical Dance

and Paraguayan Dance (Torres, 2017). The members of the working table were: Dr. Rita Wattiez de Cuevas who is in charge of the general coordination of the document (assisted by Lic. María Angélica Vinader de Moreno in the writing), Dr. Jorge Báez as advisor and professors Inocencio Báez Villalba, Emilio Barrientos, Lilú Torres, Reina Menchaca, Teresa Capurro, Teresita Gamarra, Gilda Ruiz, as technicians responsible for the conception of the artistic restructuring of dance.

This group began the drafting of the Basic Document and the respective programs in the areas of Classical Dance, Paraguayan Dance and Spanish Dance. All of them worked hard to prepare the Basic Document and the corresponding programs. In 1977, these programs were approved and implemented, formally formalizing the study of dance in Paraguay. Subsequently, in the following years, the opening of dance academies was regulated, thus consolidating the study and learning of dance in the aforementioned country.

In the area of Classical Dance, the preparation of the program is based on elements of the program of the Russian school Vaganova, adapting them to the reality of the dance of Paraguay, leaving open in the writing of this, the possibility of adding more elements and improving the structure, as necessary, according to the evolution of the study of that area in the country.

For the realization and development of the Paraguayan Dance program, the program elaborated by the teacher Lilú Torres with certain adaptations is taken as an example, because the original program was designed for young people and adults, instead, the new program should include training children. For its development, the collected traditional dances are reviewed and a timeline is made, placing and classifying them according to the documented date of their appearance. Subsequently, for the organization of the national program by courses, traditional dances are categorized and classified according to their complexity, so that these dances can be taught from the steps to the most complex choreographic figures. They then go through a process where they are classified and placed in order within the program, in such a way that they facilitate their learning. Then, the steps of each of the dances are extracted separately and they are named according to their characteristics and with the data obtained thanks to the compilation made by the teachers. In this way, the Paraguayan Dance program is developed and continues to this day (Menchaca, 2018 and Torres, 2017).

One of the problems in teaching and learning Paraguayan Dance is due to the lack of scores for a large number of traditional dances that make up the cultural heritage of the Paraguayan people. To overcome this stumbling block, the teacher Lilú Torres, who works with the folkloric band of the city of Asunción and with professional pianists, sings and directs the musicians with the intention of gathering material that allows teaching classes; until in 1984, based on the national dance program by courses, he released an audio recording for the sole purpose of teaching, which contains all the traditional dances as well as a selection of polcas and Paraguayan gallops for the practice of the steps center, types of bullfighting and linked (Torres, 2017).

Discussion and Conclusions

The study of dance in Paraguay unifies the training of professionals through a national program that accompanies the growth and development of students from the initial level until reaching the teaching staff. The unification of the program allows it to

be implemented in private academies authorized by the General Directorate of Education in Art, an official body under the Ministry of Education and Science.

The formal study of dance in most countries is carried out through higher study programs, where each higher institute or university offers its own curriculum. Potential teachers are trained up to the dancer stage in different institutions and then they carry out the teaching. The novelty of this research, beyond having studied the program in Paraguay, lies in the fact that part of its uniqueness and the way in which it was developed and implemented to formalize the study of dance in that country. It is an innovative way of granting the general population who wants to access this study to be able to do it in different academies and achieve an official title through a program that accompanies the growth and development of the individual in dance from the level initial, thus achieving a more homogeneous training in professionals.

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The research carried out allows us to learn more about and disseminate the way in which dance formalization was carried out in Paraguay, which presents quite peculiar characteristics in the training of dance teachers. It is a rather interesting process that has been in force for more than 40 years and shows that dance can be taught at the national level, from the initial level to the higher level, through the systematization and creation of a single program. However, the topic deserves a deeper study, through another type of research with which the social reality can be understood as a concrete and complex totality at the same time, focused, beyond knowing it, to carry out research aimed at change and to social transformation, within which the needs of those who make up the reality studied are known (Folgueiras-Bartolomeu and Sabariego-Puig, 2017, pp. 16-19); and, if necessary, consider the revision and updating of the programs and the Basic Document so that they accompany the evolution of current education, marked by constant and vertiginous changes, and adapt to contemporary needs.

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IMPROVEMENTS IN THE DEVELOPMENT OF SCIENTIFIC COMPETENCE IN FIRST GRADERS STUDENTS IN A HIGH SCHOOL IN URUGUAY

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Abstract. It is necessary to provoke a change in learning to achieve motivation, taste for science, and the development of scientific competence in students. Thus, during the action research, didactic sequences were developed, and evaluations were applied at the beginning and the end of the school year to analyze the influence of working with Research Projects on the development of scientific competence in two groups. The mixed-cut research was carried out in a lyceum with an unfavorable sociocultural context. The selection of the teacher was carried out by empirical sampling. It was the teacher who selected the best group of first-graders and the one with the greatest difficulties. In total, 38 students participated in the study. Documentary analysis was carried out. It included the rubrics applied to the diagnostic proposal and the final evaluation. At the beginning of the year, the results in the group 1st grade 1 correspond to 50% of acceptable answers, whereas the group 1st grade 3 achieved a 38.9%. In the final evaluation, the groups which worked in Research Projects obtained 56.9% and 54.9% respectively. When the differences are analyzed in the light of all the indicators measured, it can be seen that while in 1st grade 1 there were significant improvements in three of the nine indicators; in 1st grade 3 the improvements were evident in four of them.

Keywords: scientific competence, Research Projects, rubrics.

MEJORAS EN EL DESARROLLO DE LA COMPETENCIA CIENTÍFICA EN ESTUDIANTES DE PRIMER AÑO DE SECUNDARIA EN UN LICEO DE URUGUAY

Resumen. Se hace necesario un cambio en el aprendizaje, que logre el gusto por las Ciencias y desarrollo de competencia científica en los estudiantes. Se elaboraron secuencias didácticas y se aplicaron evaluaciones al inicio y al final del año lectivo, con el objetivo de analizar la influencia del trabajo con Proyectos de Indagación en el desarrollo de la competencia científica en dos grupos de la investigación

acción. La investigación de corte mixto, se realizó en un liceo de contexto sociocultural desfavorable. La selección de la docente se efectuó por muestreo empírico. La docente seleccionó el mejor grupo de primer año y el de mayores dificultades. Intervinieron 38 estudiantes. Se efectuó análisis de documentos de las rúbricas aplicadas a la propuesta diagnóstica y a la evaluación final. Al inicio del año los resultados en 1º 1, corresponden a un 50 % de respuestas aceptables, en tanto 1º 3, logra un 38,9 %. En la evaluación final los grupos que trabajaron en proyectos de indagación obtuvieron un 56,9 % y 54,9 % respectivamente. Cuando se analizan las diferencias para primero 1 para cada uno de los indicadores medidos se aprecia que, de forma significativa, mejoran en tres de los nueve indicadores y para primero 3, en cuatro.

Palabras clave: competencia científica, proyectos de indagación, rúbricas.

Introduction

This research is relevant to the scientific community because it seeks to raise teachers' awareness and make them reflect on how they plan their lessons and teach them in their classroom while taking into account research in science teaching. It is also important because the results obtained are not limited to the perception of teachers or students, it transcends those since the results obtained are evaluated, in the process carried out by students, during a school year. The progress that first-year students achieve in a high school which is in an unfavorable socio-cultural context, in the development of scientific competence, when the teacher works with Projects within the teaching model of inquiry learning is analyzed in this article.

The data was collected during research conducted in 2017, corresponding to the Doctoral thesis.

The mixed-cut research was approached from a socio-critical perspective since it was intended to analyze the situation and transform it. It corresponded to an action-research, which was implemented through project planning based on the curricular contents, to favor the development of scientific competence. It was supplemented with a quantitative approach when compared with a control group.

The need to implement this research arose because currently, it continues to be observed that classroom teaching does not produce good results. Solbes and Tarín (2007) state that it is verified that students are no longer interested in science; instead, Sánchez (2013) shows that project-based collaborative learning constitutes a stimulus for learning and students develop proactive capacity. They also add that having the possibility of selecting activities based on their interest favors the deepening of the course contents.

In another research conducted by Rodríguez-Sandoval, Vargas-Solano, and Luna-Cortés (2008) called "Evaluation of the strategy: project-based learning", 80% of the respondents consider that they learned to plan, consult the literature, apply acquired knowledge, interpret and analyze data, communicate results and work in groups.

In a study conducted by Chin and Osborne (2008), 75% of sixth-year students chose to investigate questions prepared by themselves. The young people described the job as “exciting, fun, and interesting,” indicating the importance of building on their curiosity.

This teaching model has proven to be very valid in other communities. Franco Mariscal (2015, p. 231) describes research learning, starting from the contextualization of a situation. The research corresponded to a case study on metal corrosion.

He worked with seven dimensions, which were taken as a reference in the present research: “research approach; information management; research planning and design;

data collection and processing; data analysis and issuance of conclusions; communication of results, attitude or critical reflection and teamwork ”(Franco-Mariscal, 2015, p. 240)

The importance of considering teachers as designers can also be seen in the research conducted by Llorente, Domènech, Ruiz, Selga, Serra, Domènech-Casal (2017). They found that, through the design of Research Projects arising from this context, the conceptual, procedural, and epistemic dimensions of Scientific Competence can be developed.

Meanwhile, Crujeiras (2015) researched the “practice-based learning approach” in chemistry. The research main results indicate that progress is observed in the performance of the students, observing that, at the end of the study, they develop designs that enable them to solve tasks and analyze and interpret data, without the help of the teacher.

In 2012 Uruguay participated for the fourth time in "Program for International Student Assessment" (PISA). Science scores for Uruguay were 416, while the Organization for Economic Co-operation and Development (OECD) average was 501 and Shanghai 580. The questions with the highest percentage of omission are those that need to be elaborated by the student. While in 2006, with 43%; and 2009, with 37% the omission, it corresponded to the “living systems category, ability to explain phenomena scientifically”, in 2009 an explanation should be proposed about the action of antibiotics on bacteria (ANEP, 2013, p. 198)

It is considered that, if teachers participate in an action-research, even if they do not read the research in teaching, referred by Gil Pérez and Vilches (2013), they will be able to know this teaching model and implement it.

The objective of this research was to analyze the impact of the research-based learning teaching model, on the development of scientific competence in high school students.

Method

Design

The methodology corresponds to mixed longitudinal research framed from the perspective of participatory action research, which is complemented with an AB design of repeated averages.

An initial diagnosis was proposed at the beginning of the course, which proposed a problematic situation that covered different activities, and that allowed assess the different competences in science. The capacities displayed by the students to solve the proposal assignment were assessed with a rubric.

During the year, we worked on the planning of three sequences, using different strategies of the inquiry-based learning teaching model to develop different dimensions and capacities in scientific competence. Each sequence made it possible to develop an inquiry project.

At the end of the year, an open-ended problem situation arose, and the capacities of students' scientific competence to solve it were observed.

The tests were framed in real or possible situations, since it is intended to measure the knowledge, knowing how, and knowing how to be, in context.

To observe the development of scientific competence in the course of the research and prepare the initial and final assessment, Table 1 was prepared, in which the categories, dimensions, and capacities designed by Franco Mariscal (2015) are taken and incorporated a new category, which is extracted from the PISA assessment, which corresponds to scientific knowledge (ANEP, 2016).

Table 1
Categories, dimensions, and capacities included in scientific competence.

Categories	Dimensions	Capacities
Scientific knowledge	Knowledge of Biology Contents	*Identify scientific questions.* *Explain phenomena scientifically.* *Use scientific evidence.*
Knowledge about science (procedural and epistemic)	Research approach	*Identify scientific problems.* *Define the objectives of the research.* *Formulating hypotheses.*
	Information management	*Search for information from different sources and evaluate them critically and thoughtfully.*
	Research planning and design	*Identify variables.* *Design a methodology.* *Experiences.*
	Data collection and data processing	*Observe systematically.* *Select and use the most suitable measuring instrument.* *Process the results in different formats (tables, graphs).*
	Data analysis and issuance of conclusions	*Interpret the results.* *Formulate conclusions.*
	Communicate the research results	*Reporting of the results.*
Attitude towards scientific activity	Attitude, critical reflection, and teamwork	*Interest in scientific problems, scientific approach evaluation, and environmental awareness.* *Reflect critically on the results.* *Work as a team, respect, and value colleagues' ideas, and make decisions.*
The social relevance of science (personal, local, and global context)	Linking science in context, with society's norms and values.	*Identify beneficial scientific practices for most citizens.* *Participate as members of a community in collective reflection from the research process.*

Note: Authors' creation, modified by Franco Mariscal (2015, p.240) and PISA cited in ANEP (2016)

Participants

The selection of the city where the high school is located was made taking the suggestions of the Secondary Education Board. The city of Paso de los Toros, in the department of Tacuarembó, was chosen.

The high school of critical social context was taken as a sample since it is where students who are generally demotivated, and who stop attending class during the year attend.

The classification of high school in an unfavorable socio-cultural context is based on the categorizations used by the Secondary Education Board. It is an institution that also registers lag and school dropout at the end of the first semester. These education centers are the ones that most urgently require a change in the methodologies applied in the classroom.

A collaborative work team was formed together with three high school teachers, and the research was implemented in six courses, two courses for each teacher, which corresponded to a total of 115 students at the beginning. This article only refers to the work of a teacher with two first-year groups.

The teachers were selected according to the workplace (empirical sampling), that is, they were chosen from among the teachers who work in the selected high school. Also, as it was an action-research, the willingness to carry out the experience and the openness of the teachers to plan as a team, and share the work of the students was taken into account, characteristics that correspond to a type of intentional sampling. Likewise, their seniority (located between the second and fourth grade of the ranking), training (graduates of teacher training institutes), and permanence during the school year were considered.

Regarding the courses, those that the teachers considered to be the best and those that presented the greatest difficulties were selected, respectively, from each of them, so that there was representativeness in middle school students regarding the diversity present in the classrooms. Two control groups were added to the sample, in which the final assessment was applied.

Instruments

As an instrument, an initial proposal for the first year is developed. Before the application, it was assessed by biology teachers who made their contributions, and later with these contributions, a pretest was carried out in groups different from the first years that made up the sample. It establishes the items to evaluate each of the capacities that make up scientific competence. After preparing it, the presentation was adapted, with a more attractive design, to interest the students (Annex 1).

Rubrics were prepared to evaluate the initial and final proposal, both are similar, they only vary about the conceptual contents, for this reason, only the one used to evaluate the initial proposal is presented in Annex 1.

Table 2

Rubric to evaluate the initial proposal of 1st year.

		Excellent	Very good	Acceptable	Does not satisfy
1	*Identify scientific questions.* *Explain phenomena scientifically.* *Use scientific evidence.*	Correctly interpret the information in the graph and mention some factors in the growth of water lilies.	Correctly interpret the information in the graph and mention a factor in the growth of water lilies.	He or she cannot interpret all the information on the graph. The factor you mention is incorrect or confusing.	He or she does not correctly interpret the informatio n in the graph and mention some factors in the growth of water lilies.
2	*Identify scientific problems.* *Define the objectives of the research.* *Formulating hypotheses.*	Confront objectives and/or hypotheses with the results appropriately.	It refers to the objectives and/or hypotheses and the results but fails to contrast them to draw a conclusion.	The conclusion refers to the results without considering objectives and hypotheses.	The conclusion is not related to the research carried out.
3	*Search for information from different sources and evaluate them critically and thoughtfully.*	He or she correctly diagram a poster with all the items it must contain. The design of the paper is correct.	He or she diagram correctly, but some items are missing. The design of the paper is correct.	He or she diagram correctly, but many items are missing. Unsuitable design on paper.	The items mentioned for the poster are not selected correctly.
4	*Identify variables.* *Design a methodology.* *Design experiences.*	Has a correct management of teamwork, and respect for the opinion of colleagues to make decisions	He or she has correct management of teamwork and respects the opinion of colleagues but undervalues the opinion of others to make decisions.	He likes to present his ideas but does not value the opinion of colleagues to make decisions or criticizes without contributing	He or she does not intervene in teamwork.

		Excellent	Very good	Acceptable	Does not satisfy
				or works without criticism.	
5	*Process the results in different formats (tables, graphs).*	Disseminate the research results in different ways for the community to participate. He or she proposes to raise awareness in society about the care of green spaces.	He or she disseminate the research results in a way. He or she does not propose to raise awareness in society about the care of green spaces.	He or she does not disseminate the research results in a way. He or she proposes to raise awareness in society about the care of green spaces.	He or she does not interact with the community.
6	*Formulate conclusions.*	Correctly interpret the information in the graph and mention some factors in the growth of water lilies.	Correctly interpret the information in the graph and mention a factor in the growth of water lilies.	He or she cannot interpret all the information on the graph. The factor you mention is incorrect or confusing.	He or she does not correctly interpret the information in the graph and mention some factors in the growth of water lilies.
7	*Reporting of the results.*	Confront objectives and/or hypotheses with the results appropriately.	It refers to the objectives and/or hypotheses and the results but fails to contrast them to draw a conclusion.	The conclusion refers to the results without considering objectives and hypotheses.	The conclusion is not related to the research carried out.
8	*Work as a team, respect, and value*	He or she correctly diagram a poster with all	He or she diagram correctly, but	He or she diagram correctly,	The items mentioned for the

		Excellent	Very good	Acceptable	Does not satisfy
	colleagues' ideas, and make decisions.	the items it must contain. The design of the paper is correct.	some items are missing. The design of the paper is correct.	but many items are missing. Unsuitable design on paper.	poster are not selected correctly.
9	*Identify beneficial scientific practices for most citizens. Participate as members of a community in collective reflection from the research process.*	Has a correct management of teamwork, and respect for the opinion of colleagues to make decisions	He or she has correct management of teamwork and respects the opinion of colleagues but undervalues the opinion of others to make decisions.	He likes to present his ideas but does not value the opinion of colleagues to make decisions or criticizes without contributing or works without criticism.	He or she does not intervene in teamwork.

Note: Author's creation.

To assess the process carried out and obtain data for the research, a final proposal was prepared, which allowed the results to be compared at the beginning, and the end of the school year. The final proposal consisted of different items that allowed evaluating the 9 capacities of scientific competence mentioned above (Annex 2)

Data analysis

To carry out the analysis, the scores that arose from the rubrics applied by the teachers to the works of each of the students were taken for this purpose; and then the totals scores obtained by each student and group in each of the capacities were summarized. Finally, the scores obtained in the initial and final proposals were compared.

With the statistical package SPSS v.25 (IBM, 2017), the quantitative analyzes were carried out. On the one hand, to check the possible association between the course variable (VI) and the dimension variable (DV), a Crosstab Analysis was carried out using a contingency table, using the X2 index, between both first-year courses. Subsequently, the hypotheses of differences between the averages of the scores obtained in each of the indicators and the courses are tested by averages of the tests: F (Anova) for the parametric contrast and Mann-Whitney U for the non-parametric contrast, once the assumption of variance homogeneity was verified using the Levene test.

For this article, the data corresponding to the rubrics analyzed for the first year is used, they were 38 from the initial proposal; and 34 from the final.

Results

In each test, the nine dimensions of scientific competence presented in Annex 2 were analyzed.

To assess the results of the tests, a rubric with four performance levels was applied: excellent, very good, acceptable and not achieved, each level corresponds to a score of 3, 2, 1 and 0 respectively, which allows the student to be scored on the scale of 1 to 12 used in the educational system. The total score that could be obtained in the test was 27 points. To analyze the results of this research, the total score obtained by each student was translated into qualitative categories through a scale, in which the values from 23 to 27 corresponding to the category of excellent, 18 to 22 very good, 13 to 17 acceptable, and 1 to 12 insufficient.

In the initial proposal of the 18 first-year students 1, only three obtained acceptable. In the first year, 3, only one student out of the 20 who take the assessment gets acceptable.

For the purposes of the analysis, it is considered that the group, in general, obtains an “acceptable” when 70% of the students reach the “acceptable” or higher grades in the initial and final evaluations in each of the abilities.

If it is analyzed by group and dimension of scientific competence, in table Nor 4 in first 1, dimensions 1 and 5 are those in which the greatest number of students reach the acceptable one, followed by dimensions 2 and 8. The dimensions in which they present the greatest difficulty are 4 and 7.

In the case of 1st 3, dimension 3 is the one with the best results, followed by dimensions 1 and 2. The dimensions in which students present the greatest difficulty are 6 and 7, which correspond to "formulating conclusions" and "reporting of results", respectively.

Considering that teachers were asked to choose the best group and the group with the greatest difficulties, it is possible to see differences between the groups.

While 1st 1, obtains 50% of acceptable responses, 1st 3 achieves 38.9%.

Table 3
Results of the initial and final proposals in the groups of 1st 1 and 1st 3.

	Initial proposal		Final proposal		Total students with correct answers in each item	
	1st 1	1st 3	1st 1	1st 3	Initial P.	Final P.
1. Identify scientific questions. Explain phenomena scientifically. Use scientific evidence.	13	12	17	16	25	33
2. Identify scientific problems. Define the objectives of the research. Formulating hypotheses.	11	12	15	16	23	31
3. Search for information from different sources and evaluate them critically and thoughtfully.	10	14	6	7	24	13
4. Identify variables, design a methodology, carry out experiences.	4	5	8	5	9	13
5. Process the results in different formats (tables, graphs).	13	10	10	10	23	20
6. Formulate conclusions.	8	2	4	3	10	7
Reporting of results.	3	0	5	2	3	7
Teamwork. Appreciating the ideas of colleagues and making decisions.	11	11	13	16	22	29
9. Identify beneficial scientific practices for most citizens.	8	4	9	9	12	18
Total items answered correctly.	81	70	87	84	151	171
Total students who took the test.	18	20	17	17	38	34
% correct items / total students	50	38.9	56.9	54.9	44.2	55.9

Note: Author's creation

Concerning the final evaluation proposal, in the first 1, seven students obtain acceptable in the test, while in the first 3, there are five. There is a slight improvement in the results compared to the initial proposal.

In an analysis by category, both groups obtained better results in categories 1, 2, and 8, and the worst results were found in categories 5 and 6, corresponding to "processing results" and "formulating conclusions".

The group with the worst results at the beginning is 1st 3, which obtains 70% only in one dimension, however, at the end of the year it achieves 70% in three dimensions, generating progress in two dimensions

In the final proposal, the initial differences between the groups of the same grade are not observed. It is essential to highlight that in the first year, the initial scores go from 50% for 1st 1 and 38.9% in 1st 3 to scores of 56.9% and 54.9% respectively. An advance in the results is appreciated, in addition to achieving a leveling out in them.

Regarding the score obtained according to the dimensions of scientific competence, they achieve the best result in dimension 1, in which all students respond acceptably and dimension 5, where 88% manage to respond in an acceptable or very good way.

If the total of items answered correctly by both groups of the action research is analyzed, at the beginning it is 44.2% and in the end, they manage to respond acceptably 55.9%. Slight progress is observed in the development of scientific competence.

The analysis of the possible relationship (behavior) between the two courses concerning the indicators (items) measured, carried out with the X 2test, offers insignificant results in all the indicators except for 6 (Formulate conclusions). In other words, both courses show a similar distribution in student achievement, except for indicator 6 (Formulate conclusions), which show a more favorable association for first 1 students (higher acceptable and very good scores)

Table 4
Results of contrasting before and after averages in the groups 1or 1 and 1or 3. Author's creation.

	First 1	First 3
1. Identify scientific questions. Explain phenomena scientifically. Use scientific evidence.	F (1.33) = 15,000 p= 0.000	F (1.36) = 50,602 p= 0.000
2. Identify scientific problems. Define the objectives of the research. Formulating hypotheses. **	F (1.33) = 9,202 p= 0.005	F (1.36) = 27,366 p= 0.000
3. Search for information from different sources and evaluate them critically and thoughtfully.	F (1.33) = 0,565 p= 0.458	F (1.36) = 0.511 p= 0.479
4. Identify variables, design a methodology, carry out experiences.	U= 105.00 p= 0.060	U= 152.00 p= 0.494
5. Process the results in different formats (tables, graphs).	F (1.33) = 0.122 p= 0.729	F (1.36) = 0.137 p= 0.713
6. Formulate conclusions.	F (1.33) = 0.135 p= 0.715	U= 156.00 p= 0.472
7. Reporting of results.	U= 132.00 p= 0.343	U= 150.00 p= 0.120
8. Teamwork. Appreciating colleagues' ideas and making decisions.	F (1.33) = 2.250 p= 0.143	U= 105.00 p= 0.019
9. Identify beneficial scientific practices for most citizens. *	U= 131.00 p= 0.421	U= 104.50 p= 0.019
Participants' total score**	F (1.33) = 4.155 p= 0.715	F (1.36) = 13.977 p= 0.001

Note:* indicators whose differences have been significant in one of the first courses.

** indicators whose differences have been significant in both first-grade groups.

The analysis of the differences between the groups offers the results described in Table 4, where it is observed that both courses improve significantly in the total score of the test: 1st-1 goes from obtaining an average score of 7.11 with Dt = 4.35, to an average score of 10.76 with Dt = 6.14. The 1st-3 course goes from obtaining an average score of 5.95 with Dt = 4.73, to an average score of 11.64 with Dt = 4.48. This improvement also occurs in both courses for dimensions 1 (course 1st-1: M_{before}= 0.94 Dt = 0.80; M_{after}= 2.58 and Dt = 0.89; and course 1 -3: M_{before}= 0.65 Dt = 0.58; M_{after}= 2.35 and Dt = 0.86) and for dimension 2 (course 1st-1: M_{before}= 0.88 Dt = 0.96; M_{after}= 1.94 and Dt = 1.08; and course 1st-3: M_{before}= 1.00 Dt = 1.02; M_{after}= 2.64 and Dt = 0.86).

In course 1st-1, there are no further improvements. On the other hand, in year 1st- 3 there were statistically significant improvements in dimensions 8 (M_{before}= 1.55 Dt = 1.50; M_{after}= 2.70 and Dt = 0.77) and 9 (M_{before}= 0.25 Dt = 0.55; M_{after}= 1.11 and Dt = 1.26)

Discussion and Conclusions

It is noteworthy that the initial differences between the groups towards the end dissipate, tracing the lower results to reach similar results between the groups of the same grade.

Students do not achieve the expected progress in the different capacities of scientific competence, however, a slight improvement can be seen between the application of the evaluation proposal at the beginning and the evaluation they carry out after working with research projects.

The small progress achieved, although it cannot be compared, is related to the results obtained in a research conducted by Sánchez (2013) on project-based collaborative learning, which took engineering students as study subjects, the results indicate that the experience was made possible for the students to develop their learning process, favored the deepening of the course content and to take more responsibility for participation.

On dimension five, corresponding to "analyzing the results" in which the students had the most difficulty, Harlen (2007) mentions that, over the school year, there is a growth in the experience of the students, for which they will be able to collect information more complex as they progress in this type of task. Developing scientific competence is a process that takes time and is not achieved in a school year, for this reason, the progress that could be observed, even if little, is important.

Concerning dimension six of "drawing conclusions", Harlen (2007) refers to the difficulties that students present when drawing conclusions. This author points out the difficulty in both dimensions, which together with a scarce approach to them, can have an impact on the low results, from which it can be deduced the importance that the development of scientific competence must be promoted throughout schooling.

Both groups achieved an improvement in the dimensions of scientific competence, with meager progress over a school year, but very important for the beginning of the middle school journey, taking into account that they correspond to groups that completed their first year. Likewise, it is possible to observe the differences in the results achieved by the groups that worked on research projects and those that did not.

The difficulties involved in developing scientific competence are also demonstrated in the analysis by capabilities, some dimensions of competition require more effort and work than others.

After applying for the project work, at the end of the course, both groups achieved an improvement. Sánchez (2013) also mentions the fact that feeling responsible for the success of the activity facilitated the learning of all the students and their integration.

Likewise, it is important to remember that the experience was carried out in a high school with an unfavorable socio-cultural context, for which, although the progress is little, it is valued as very positive.

These results warrant further research, it would be important that the instrument used at the beginning and end, also be applied throughout the year, for the purposes of the research, since the students were evaluated during the school year through an authentic evaluation, with the presentation of the projects and their defenses, therefore, the final proposal was unknown and decontextualized for the students.

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Annexes

Annex 1

Capacity: 1 Identify scientific questions. Explain phenomena scientifically. Use scientific evidence.

Problem situation: Diego and Flavia go out to play in the yard and find that Diego's father has planted grass in his garden to make him look nice.

Diego runs into the grass and Flavia tries to stop him saying: "Stop Diego! Can't you see you're going to kill him?"

DIEGO: “Who?”

FLAVIA: “The grass!”

DIEGO: “What are you saying? The grass is dead”

a. *What is the problem?*
b. *What can Flavia do to prove to her friend what she claims?*

Capacity: 2 Identify scientific problems. Define the objectives of the research. Formulating hypotheses.

If you had to carry out a research concerning the above problem, what question would you pose?

Read the following sentences and indicate in each one if it is a research objective or hypothesis:

- ✓ *Check if the grass is a living being.*
- ✓ *Observe if the grass completes a life cycle.*
- ✓ *Grass is not a living being because it fulfills vital functions.*
- ✓ *Grass is a living being because it fulfills a life cycle.*
- ✓ *Grass is a living being because it is made up of cells.*

Capacity: 3 Search for information from different sources and evaluate them critically and thoughtfully.

Read the following texts:

a. *"Grass is the plant food that grows on the soil of fields and is intended for animal feeding". Pérez Porto, J., Merino, M. (2013, p.1)*
b. *Awareness of the population regarding the importance of the meadows is raising in Uruguay. However, this is yet to be known about its ecology, the structure of plant and animal communities, as well as the functioning and human impact (De León y Gasdía, 2008).*

b) *Which of the two texts do you think has scientific knowledge? A or B?*
c) *What information in the text did you consider when responding?*
d) *Capacity 4: Identify variables. Design a methodology. Design experiences.*
e) *a) According to the searchable question you posed, identify the variables.*
f) *b) Explain how you will proceed to answer the searchable question.*

Capacity: 5 Observe systematically. Select and use the most suitable measuring instrument. Process the results in different formats (tables, graphs).

In a study on aquatic lilies, a plant was introduced in Lake Maracaibo (Venezuela) and its growth was observed. A graph was then made to analyze the results shown in Figure 1.

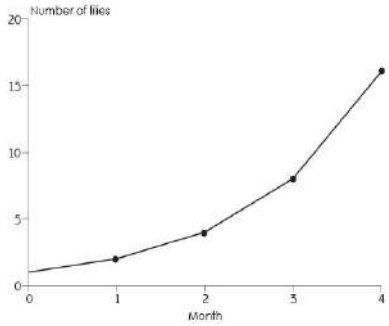

Figure 1. Lily growth in Lake Maracaibo
Note: Source Marten, (2001)

Look at the graph and answer:

a) *In how many months did the study of the lilies last?*
b) *In two months. Approximately, how many lilies grew?*
c) *In four months, how many lilies grew?*
d) *What can the increase in lilies be due to in the last month? Mentions several possibilities.*

Capacity: 6 Interpret the results. Formulate conclusions.

Draw up a conclusion for the previous research, bearing in mind that the objective was: Know the growth of lilies on Lake Maracaibo.

Capacity: 7 Reporting of the results.

Make a poster with the titles you would put in to present your research.

Capacity: 8 Take an interest in scientific problems. Reflect critically on the results. Work as a team, respect, and value colleagues' ideas, and make decisions.

Which of the following statements characterizes your actions when working as a team?

a) *You do consider that the most valid ideas are yours, and that is why you do not let other colleagues speak.*
b) *You enjoy listening to everyone, and then you give your opinion.*
c) *After listening to all ideas, you always consider yours to be more valid.*
d) *You reflect on what is being discussed and may consider a classmate's idea to be more valid.*

Capacity: 9 Identify beneficial scientific practices for most citizens. Participate as members of a community in collective reflection from the research process.

What action would you take in your community after completing your research?

Annex 2

Capacity 1:

Luis's mother is breeding chickens for the family's consumption, but she is concerned that the chickens are not growing as she expected, and they will not be ready by the date she needs them. Luis wants to help his mother and thought that perhaps, by changing some of the conditions in which the chickens are, he will be able to have better results.

According to what you studied in high school, answer:

Is there a scientific basis for Luis' idea?

Write an explanation about what Luis thinks.

Indicates what scientific evidence he may be used.

Capacity 2:

If you were to inquire into the problem posed above, what question would you ask for further research?

Defines the purpose of the research.

Pose two hypotheses for the question.
Capacity: 3
Select two texts to make a theoretical framework:

A. *Cultivating tomatoes under greenhouse substrate conditions produces excellent quality fruits. It also complies with food safety standards. Also, currently, the demand for organically developed products has increased because organic fertilizers make it possible to improve the quality of vegetables consumed by humankind (Dimas et al, 2009).*
B. *"The plantain production systems in the area analyzed present important limitations for its harvesting, some of which are phytosanitary problems, inadequate agronomic management, unsuitable cultural practices, unwise use of agrochemicals, among others." (Barrera, Combatt and Ramirez, 2011, p. 188).*
C. *"Plants are living beings, and they need us to grow. Talk to your plants. This is how you can release carbon dioxide, thus promoting their growth. Also, you should check the plant periodically to avoid the appearance of pests". (Alm, 2013, p. 1).*

What did you consider for the election?
Select a quote.
Paraphrase it.
Capacity 4:
According to the searchable question you posed, identify the variables.
Explain how you will proceed to answer the searchable question.
Capacity 5:
At the veterinarian: chickens grow very fast. Prepare a graph with the chickens' growth data from the neighborhood veterinarian:

Table 5
Chickens grow in 21 days.

Time (days)	Mass (g)
1	30
7	150
14	400
21	800

Note: Author's creation.

What factors can affect chicken growth?
Capacity: 6
Lamb growth curve
Look at the graph and answer:

g) *How many months did the study of growth in lambs last?*
   a. *In 100 days. Approximately how much do they weigh?*
   b. *In 200 days. How much do they weigh?*
   c. *What differences do you notice between males and females?*

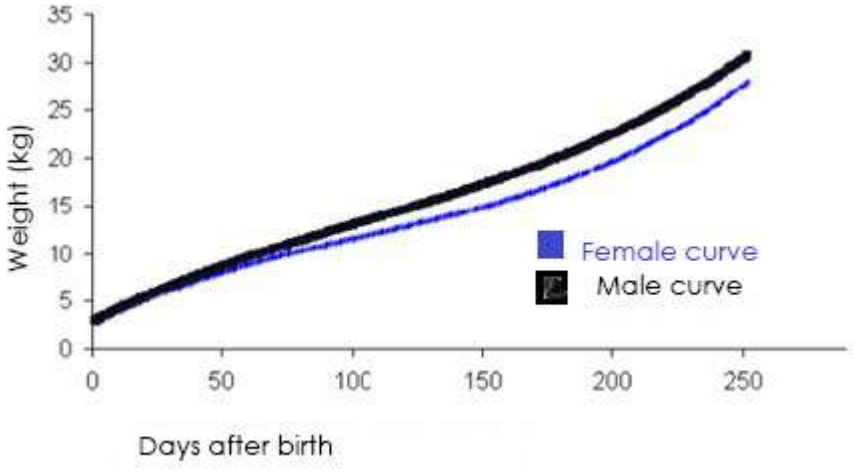

Figure 2. Curve of lamb growth by sex (González Garduño, Torres Hernández, Castillo Alvarez, 2002, p. 17) Author's own translation.

It draws a conclusion for the previous research considering that the objective was to know the growth of Blackbelly lambs between birth and final weight, in Mexico's humid tropics.

Capacity 7:

Make a poster with the titles you would put in to present your research.

Capacity 8:

Which of the following statements characterizes your actions when working as a team?

1. *You do consider that the most valid ideas are yours, and that is why you do not let other colleagues speak.*
2. *You enjoy listening to everyone, and then you give your opinion.*
3. *After listening to all ideas, you always consider yours to be more valid.*
4. *You reflect on what is being discussed and you may consider a classmate's idea to be more valid.*

Capacity 9:

What action would you take in your community after completing your research?

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STUDY TO CARRY OUT THE TUTORIAL ACTION THROUGH A LEARNING MANAGEMENT SYSTEM AT THE SECONDARY LEVEL

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Abstract. The educational level of secondary school is the final stage of basic education in our country, which integrates the subject of tutoring as a process of guidance, management and support under the coordination of a teacher-tutor. Said educational process is carried out in order to strengthen the integral formation of the students. In this sense, the present descriptive exploratory research was carried out, addressing as problematic the analysis of the aspects to design a learning management system with the use of the Moodle platform as an accompaniment tool in the tutorial action. Thus, the mixed court study was carried out inside the school of the center of the José Anastacio Díaz López school chain (JADILOP) in the city of Zacatecas. The survey applied to 120 students was used for the quantitative analysis, using the SPSS program for the processing of the obtained data. For the qualitative approach, the semi-structured interview applied to 12 teacher tutors and 3 specialists was used, using the specialized software MaxQDA for the analysis and processing of the data based on the grounded theory. As main findings, the Moodle platform was identified with functional characteristics to carry out the tutorial action in an efficient manner as well as an environment that favors the link with the other subjects of the second year of secondary school program; where the aspects to be integrated in the design and implementatión are specified.

Keywords: Tutorial actión, learning management system, Moodle, instructional design, informatión and communicatión technologies.

ESTUDIO PARA REALIZAR LA ACCIÓN TUTORIAL A TRAVÉS DE UN SISTEMA DE GESTIÓN DE APRENDIZAJE EN EL NIVEL DE SECUNDARIA

Resumen. El nivel educativo de secundaria es la etapa final de la educación básica en nuestro país, el cuál integra la asignatura de tutoría como un proceso de orientación, gestión y acompañamiento bajo la coordinación de un docente-tutor. Dicho proceso educativo se realiza, con el fin de fortalecer la formación

integral de los estudiantes. En este sentido, se llevó a cabo la presente investigación exploratoria descriptiva, atendiendo como problemática el análisis de los aspectos para diseñar un sistema de gestión de aprendizaje con la utilización de la plataforma *Moodle* como herramienta de acompañamiento en la acción tutorial. Así, el estudio de corte mixto se efectuó en el interior del colegio del centro de la cadena de los colegios José Anastasio Díaz López (JADILOP) en la ciudad de Zacatecas. Se utilizó la encuesta aplicada a 120 estudiantes para el análisis cuantitativo, usando el programa SPSS para el procesamiento de los datos obtenidos. Para el enfoque cualitativo se empleó la entrevista semiestructurada aplicada a 12 docentes tutores y 3 especialistas, empleando el software especializado MaxQDA para el análisis y procesamiento de los datos con base en la teoría fundamentada. Como principales hallazgos se identificó a la plataforma *Moodle* con características funcionales para llevar a cabo la acción tutorial de manera eficiente así como un entorno que favorece la vinculación con las demás asignaturas del programa de estudios de segundo año de secundaria; donde se especifican los aspectos a integrar en el diseño e implementación.

Palabras clave: Acción tutorial, sistema de gestión de aprendizaje, *Moodle*, diseño instruccional, tecnología de la información y comunicación.

Introduction

Nowadays, the educational practice is benefited by the access to the use of technology in order to carry out the activities of the teaching work. This is due to the fact that there are different resources and technological tools that, through their functionality, offer support to facilitate learning management.

UNESCO (2015) highlights the standards of competencies for the use of Information and Communication Technologies (ICTs), proposing digital literacy, as the ability of teachers to generate successful practices with the use of ICTs that are characterized by the incorporation of innovative, interactive learning environments and the promotion of collaborative participation.

On the other hand, the OECD (2004) evaluates the member countries' efforts to strengthen access to information and knowledge management by proposing a distance education model. This model focuses on the teacher as a mediator, placing the student at the center of the educational process, who will also have the role of managing their learning.

It should be noted that the evolution of education in Mexico has been shown throughout its history as a living and significant discipline. The transformations in which it has been immersed and in which paths have been found to address and understand the pedagogical process has been very important. However, the issue implementing technology articulated with the educational environment is a process that deserves greater attention.

As institutional efforts, it is important to take into account the project called: *México Conectado*, that tries to provide coverage to technology in order to strengthen the process of interaction, communication, or collaboration with the purpose of diminishing the digital gap that is still very significant in our country.

> The Government of the Republic, through the *México Conectado* Program of the Ministry of Communications and Transport (SCT), is one of the main connectivity projects of the Government of the Republic. It has accelerated changes to enable children and young people in the country the possibility of connecting to the Internet for free (SEP, 2017, p.22).

In this way, current technological means have an impact on the different areas of our society, since they are used in different human activities. For this reason, digital

literacy requires being receptive to technological innovations to use them by expanding their potential. This stems from the following point of view: "the possibility of interpreting information, assessing it and being able to create one's own messages" (Avellano, 2013, p. 453). Therefore, this applies the sense of transforming educational practice towards an interactive and collaborative training within the teaching profession. This can contribute to the student's autonomy in their own learning process to benefit the implementation of innovative pedagogical models.

We should also mention that educational programs offered through technology provide elements to catch the student's attention by using interactive methodologies. This may provide evidence of benefiting the sense's impact, compared to the more static media (Avellano, 2013).

According to Rodriguez (2013), the use of the Moodle platform represents a very useful technological tool. It allows the use of different resources through a virtual setting that can be adapted to the different teaching-learning scenarios, with methodologies that enable managing the learning process, facilitating communication, collaboration and interrelationship between teachers and students.

The study by Toledo (2017) stands out regarding the research on the process of tutorial accompaniment with the integration of ICTs. He characterized the Spanish university context and virtual tutoring, stressing the importance of teacher mediation as no reform will be sufficient if there is a lack of conviction in tackling technology as a tool and means in the educational practice. Furthermore, one of the most relevant actions in the teaching-learning process is the motivational factor. This factor grants the virtual tutor the tools to develop the competences that this difficult task requires. These tools can offer possibilities and challenges of a procedural and attitudinal nature.

According to the authors Mirabal, Gómez and González (2014), the use of Moodle as a support for face-to-face university teaching requires the use of technological tools to improve the teacher's practice. It is also important to identify those desirable competencies related to managing files within web environments, as well as knowing how to interact with them to take better advantage of this platform.

Other important findings are those from López (2013) and García, Cuevas, Vales and Cruz (2012), who express positive influence in the use of *Moodle*, according to the degree of student and teacher satisfaction. Within these ideas, the relationship of tutoring with new technological settings where it is possible to adapt them to current educational trends is made explicit. Likewise, Ruiz's study (2014) shows that technological activity in the classroom is possible since technology is an effective manner that offers users a dynamic, open and distance learning. This type of learning can help improve efficiency and productivity in the classroom to achieve quality education. In this sense, Del Hierro, García and Mortis (2014), point out that one of the teacher's tasks is to be up to date so as to establish attractive activities for students but also activities in which they are offered the opportunity to learn.

Consequently, the contributions of the research by Rodríguez (2010), revolved around the theoretical basis of the use of the *Moodle* platform. As a contribution to knowledge, he adds strategies for the design of teaching material that can be used in virtual courses for the secondary and high school level. Evidence was provided on the use of this tool as an appropriate way to accompany the student and their learning process.

In this way, the interactivity encouraged by ICT aims to foster the improvement of educational quality through the diversity of content and models focused on the student.

The benefits of Moodle for teaching are, thus, given spotlight because it allows storing multimedia content (audios, videos, images, among others), as well as the facility to evaluate student tasks, create activities and teaching units that encurage self-learning and collaborative learning (Ros, 2008).

We should underline that there is a need to be clear on why ICT are going to be incorporated and about the way in which it will be shown in the tutorial classroom. This is to say, the importance of prior planning, including the form of interaction that will facilitate the process of tutorial action within the virtual setting. According to the definitions by Clarens (2013), when a virtual course is developed, the following functions must be fulfilled: managing the resources, the contents and the activities so that the education is transmitted in an organized way. Thus, Clarens emphasizes that the main characteristics of the learning management systems are: interactivity, flexibility, scalability, standardization, usability, functionality, ubiquity, convincing the user of the benefits of ICT, and accessibility as one of the most important aspects.

Bellorch (2017) states that an essential part for the development of a learning management system in virtuality is the instructional design (ID), which should enable linking the activities, the creation of the virtual learning environment, the structuring in the design and the integration of adequate tools.

It is important to mention that there are difficulties both in schools and in teachers due to the incorporation of technological ways of working, among which, we can highlight the lack of skills in implementing ICTs, as well as a fear and distrust on the part of teachers (Coll, 2011). Therefore, we can underline that:

> It is necessary that educators learn to value ICT not only as instruments to enable new systems of representation, but also as instruments that have transformed the culture of learning, since they can be used to design virtual settings that encourage the constructivist activity of students. Coll (2011, p.116).

Regarding this, González and Vélaz (2014), point out that the tutorial action is the orientation activity intentionally carried out by the teaching staff and especially by the tutor, in the exercise of their teaching duties. This may produce a continuous and individualized accompaniment of each student and group of students that can guarantee the integral development in the academic, social, personal and professional fields.

For this reason, the National Tutoring System of Mexico (SiNaTa) defines tutoring as:

> The academic accompaniment of students, from the time they commence until they finish their studies at the upper secondary level, is carried out by a teacher who takes the role of Group Tutor. This Tutor guides them, individually or in groups, in order to achieve efficient study, develop skills and study habits and deploy strategies to learn how to learn (SEP, 2017 p.14).

Having said that, it is considered that to guarantee results, tutoring should be continuous throughout the training process in educational institutions, with collaboration not only of educational entities but also with the support of parents and others involved. Therefore, it is thought that student will acquire the long-lasting basis to act responsibly as a citizen if this teacher-tutor's accompaniment is present during the student's education process. (García & Cano, 2010).

In this way, tutoring is considered relevant for the comprehensive formation of students, stating that the commitment and dedication of tutors is not enough, but also requires the approval of educational authorities (Munevar, 2012). In addition to a work where the following is highlighted:

> The tutorial accompaniment or tutorial action is the result of a previous system of pedagogical design and didactic planning. Its development also implies processes of preparation for situations, activities and events that facilitate launching the processes and results of the strengthened and activated learning (Munévar 2012, p.36).

Likewise, tutoring in the case of secondary education should be an integral accompaniment, where the student is oriented not only to learn a subject but to develop personal skills to face the challenges of the future. In this sense, Coll (2011) states that it is not enough to be a student with an excellent academic background, but to also develop the competencies that enable them to strengthen their creative potential and the full exercise of their personality. In addition, Coll emphasizes that the teacher's role depends largely on the dynamics and interaction with students and learning content.

Regarding the use of ICTs in the educational process, it is clear today that when the characteristics for their use are enhanced, it establishes itself as a basis for pedagogical action. For this reason, the present study places great importance on the Moodle platform, taking into account that it is an environment that enables the implementation of new experiences such as interactivity and collaborative work which can foster the design of attractive activities in accordance with the interests of students in the 21st century (UNESCO 2013).

In addition, there are very few studies today about the integration of ICT into the tutoring subject at the secondary level, which is why it is necessary to know the perceptions of students, teacher-tutors and experts on their incorporation into the community of the JADILOP school in Mexico. This school has the continuous collaboration of students, teachers, experts and managers of the institution who are substantive participants and who analyze and value the transformations that these media can bring to the tutorial action program.

The previous statement suggests the following research question:

How to design a learning management system that contributes to the practice of the tutorial action at the secondary level using the Moodle platform?

Method

An exploratory and descriptive research was carried out through randomized probability sampling in which "all individuals in the population can be part of the sample" (Casal, 2010, p.4). Therefore, the sample was formed by 120 students for the quantitative process. For the qualitative process, a theoretical sample consisting of 12 teacher-tutors and 3 three computer experts, was formed.

For the quantitative approach, the following hypotheses were contemplated: 1) The Moodle platform is a functional learning management system for the tutorial action; 2) The Moodle platform is a means that enables one to practice the tutorial action in a transversal way with the subjects of the second year of secondary school curriculum. As a data collection instrument, the survey used a questionnaire with closed questions designed from an operationalization table of variables with a Likert type scale. The

reliability of the questionnaire was obtained according to the Cronbach's Alpha test with a value of 0.84.

The qualitative analysis was carried out through the based theory which makes the application of semi-structured interviews to the tutors and experts explicit. According to Hernández, Fernández and Baptista, (2014), criteria were followed in order to obtain the scientific value of the research such as the dependence that refers to the adequate systematization carried out during the ground work and the use of different sources to obtain data. The MaxQDA software was used in this study, which was of great support to carry out the process in a more effective way. We can add to this the credibility of the researcher's ability to catch the reality of the informants' experiences, for which purpose the transcripts of the interviews with the informants were validated in order to verify that their conceptions had really been caught. Lastly, the transferability that, although in qualitative studies, the aim is not to generalize the results, "they can provide guidelines for having a general idea of the problem that is been studied and the possibility of applying certain solutions in another environment" (p. 458).

It is important to mention that the work had the approval of the institution Colegio del Centro JADILOP. At the same time, the autonomy of the participants was respected to guarantee their freedom of expression in the study. "Data collection is done in the natural and daily environments of the participants or units of analysis. In the case of people during their daily lives: how they speak, what they believe, what they feel, how they think, how they interact" (Hernández, Fernández & Baptista, 2014, p.409.)

Results

According to the results obtained in the quantitative analysis, the first hypothesis suggested that: The Moodle platform is a functional learning management system to achieve a tutorial action; it is accepted according to the perceptions identified in the students, as it is showed below:

As we can see in Figure 1, students considered that the tutorial action carried out through the virtual platform is an adequate means of accompaniment. Interactivity can be highlighted as an important factor of communication and interrelationship between the participants in the course. Opinions had favorable trends as expressed in the graph, with a standard deviation of 0.50 (Figure 1).

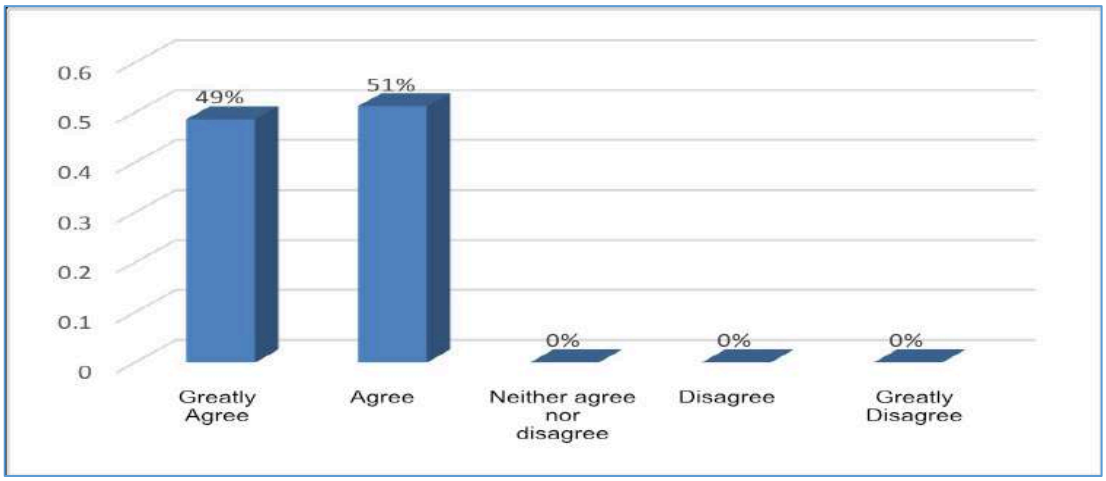

Figure 1. Tutorial action through the Interactivity in the platform
Note: Prepared with the SPSS program

Students see in a positive way the integration of multimedia resources into a virtual learning design, because in their opinion, it facilitates the educational orientation. This is favorably reflected with an average value of 4.36. Most informants accept that the integration of multimedia resources facilitates dynamic learning for a class in the platform.(Figure 2).

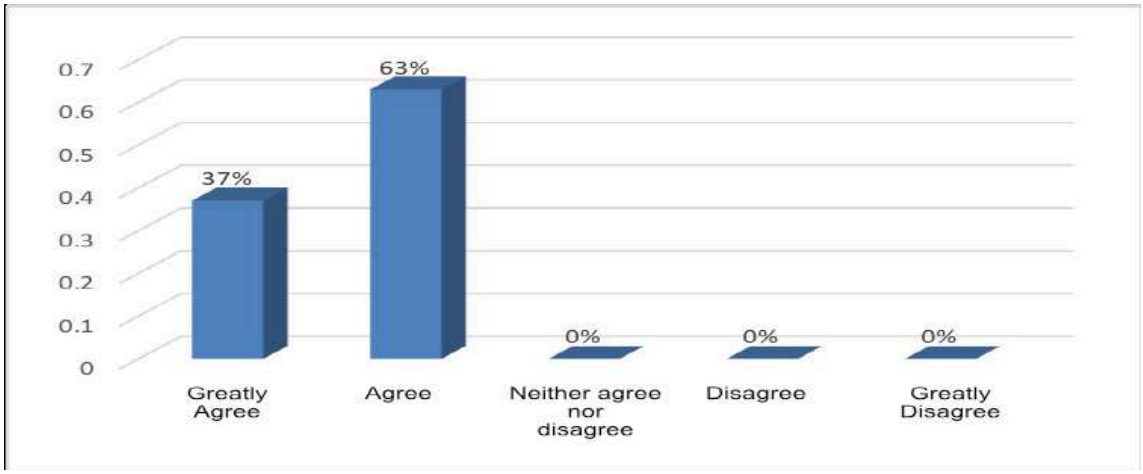

Figure 2. Integration with multimedia resources
Note: Source: Prepared with the SPSS program

Informants' perceptions of the learning ease with the use of the tool Moodle, set the mean in 3.37 . Regarding the use of ITCs, most of the students assure having carried out activities with technology as part of their training period. This result is placed with a standard deviation of 0.43.

For the item on learners' perceptions of preference for performing activities to support their learning process on a virtual platform, responses are placed with a standard deviation of 0.39. Therefore, incorporating ICTs in the classroom into the teaching-learning process requires new skills that teachers must acquire in order to take full

advantage of the benefits offered by these media and to fulfil the role of mediator of student's learning.

In relation to active participation, when using a virtual environment as a means of managing the tutorial action, students perceive it as an effective way, their responses have a mean of 3.75. And regarding the incorporation of activities to be carried out with different digital resources applicable to the tutorial action, the students expressed being in favor of incorporating new alternatives in which they could learn about digital applications in order to foster their learning, the mean was 4.36 and the mode 4.

About the functionality of the platform, to carry out activities in a collaborative way that foster interaction and communication between peers, the opinions are placed in a mean of 4.26 and a standard deviation of 0.46. This indicates that students perceive the virtual environment as a means in which they can establish greater interrelationship with their peers. Hence, the vast majority of students consider Moodle to be a viable platform for the tutorial accompaniment.

According to the second hypothesis: The Moodle platform is a means that allows tutorial action to be practiced in a transversal way with the subjects of the second year of secondary school curriculum. It is accepted according to students' perceptions with the following results:

When students were asked if they consider important to link the tutorial action with the other subjects they were taking, in order to provide them with support, guidance and monitoring of their academic performance, the results showed a standard deviation of 0.49. (Figure 3). This means that tutoring is part of the educational action and therefore should contribute to achieve a better learning level.

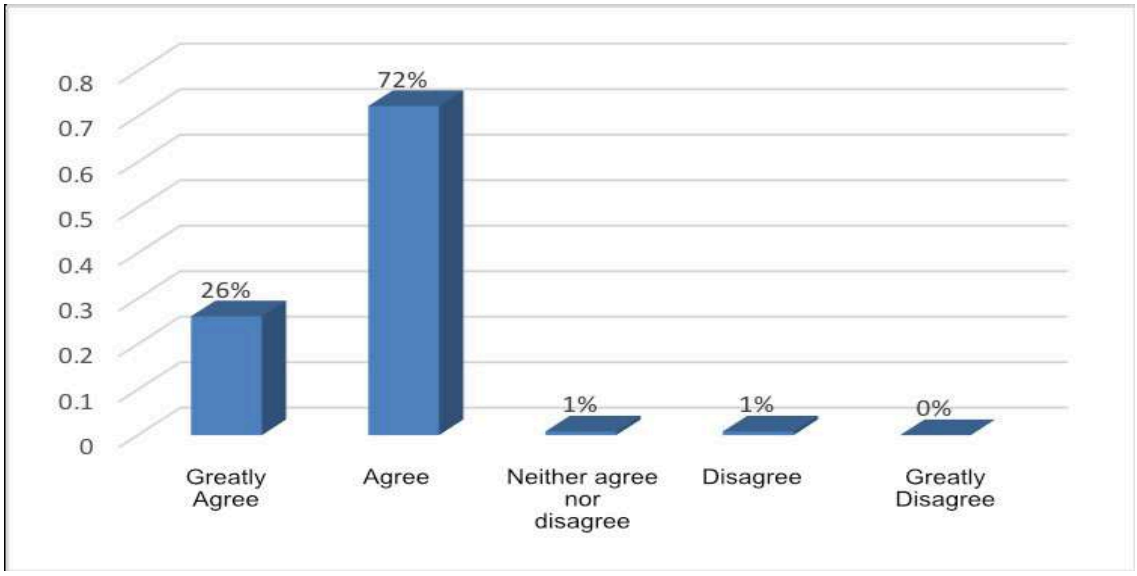

Figure 3. Tutoring as a support for other subjects
Note: Source: Prepared with the SPSS program

Besides, for the percentages of the students' perception of the role of the virtual tutor to address problems expressed in some subjects and identify weaknesses, strengths or areas of opportunity that contribute to their performance at school, the results had a standard deviation of 0.42. This means that the virtual tutor is recognized as the substantial body in the development of their specific functions such as supporting the learning process, contacting with families, among others.

According to the informants' perceptions, the tutoring action is possible when there is an opportune attention. This is reflected in positive results in the mean of 4.38 and the standard deviation of 0.48. It can be affirmed that Moodle has tools for attention and accompaniment for the students at any time, place and in correlation with the other curriculum subjects.

Regarding the qualitative analysis, four main categories were identified (Moodle platform, Teaching function, Pedagogical functionality and Tutorial action), as can be seen in figure 4. The thicker tables represent the greater importance in each subcategory of analysis.

Figure 4. Matrix of categories and subcategories
Note: Source: Prepared with the analysis conducted with the MaxQDA program

Moodle Platform

Within the findings in this category of analysis, it is highlighted the greater importance that is given to the *platform functionality* and *Moodle benefits* subcategory, which is reflected in the thicker tables (Figure 4) and thicker line as can be seen in Figure 5.

In terms of *functionality*, the experts underline the importance of designing the environment to be friendly and intuitive, easy to use and correct for an easier access by users. They also emphasize the importance of the synchronous and asynchronous communication channels that help to accompany the students during the tutorial action process. Here, the organization, the contents distribution and the objectives structuring of the course are indispensable.

Regarding the benefits of using the platform, the experts mention the benefit of being an open source tool in order to meet the users' needs, as well as the ease of use at

any time and place. Thus, one of the tutors emphasizes that: "the platform allows to connect the study with the work and foster the relations of reciprocal enrichment. That is why students like to be there, because they continually communicate" figure 5.

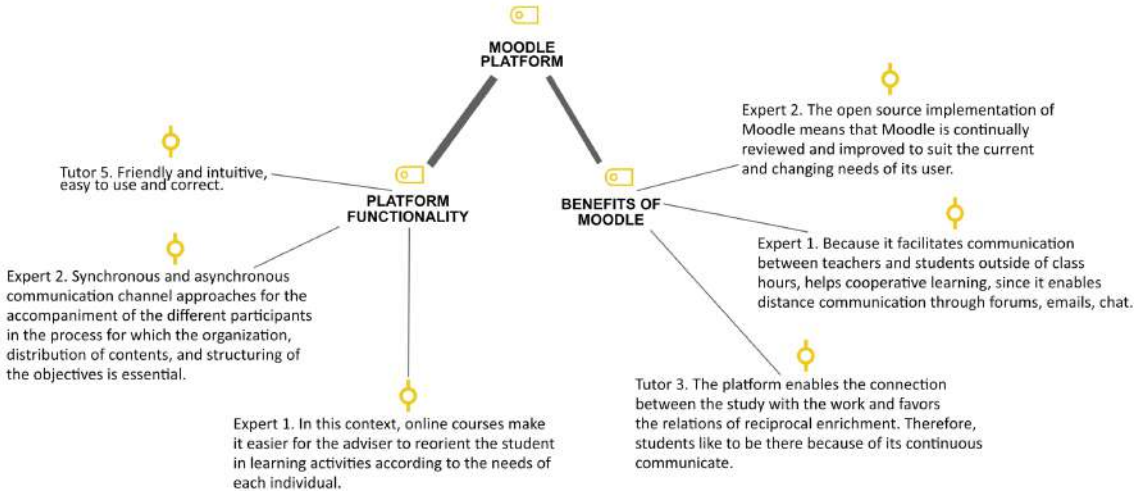

Figure 5. Map of *Moodle Platform* subcategories
Note: Source: Prepared with the analysis conducted with the MaxQDA program

Teaching Role

Within the findings in the second category of analysis called *Teaching function*, the subcategory *educational activities of learning* is reflected in the thicker line as shown in Figure 6.

In this subcategory, experts and tutors emphasize: the importance of the tasks and activities that the student must carry out to manage his learning, involving the teachers because it is no longer enough to have certain knowledge, but to foster interaction and collaboration. This is achieved by using strategies that strengthen collaborative work among students. This highlights the importance of developing a series of personal characteristics and basic teaching skills that optimize the development of their work, their interpersonal relations, and above all, greater meaningful learning of students.

Consequently, and from the pedagogical point of view, it is about seeking and identifying one's own activities that will make the learning objectives to be achieved.
In this sense, other subcategories that originated significantly are the *didactic activities and virtual scenarios* that foster the constructive and creative activity of the student, since it is perceived that the motivation to learn by doing is a way to promote learning, where the *teacher updating* becomes relevant. This is due to the fact that the teacher has the task of designing new educational approaches that are the appropriate response in order to achieve *virtual learning.*

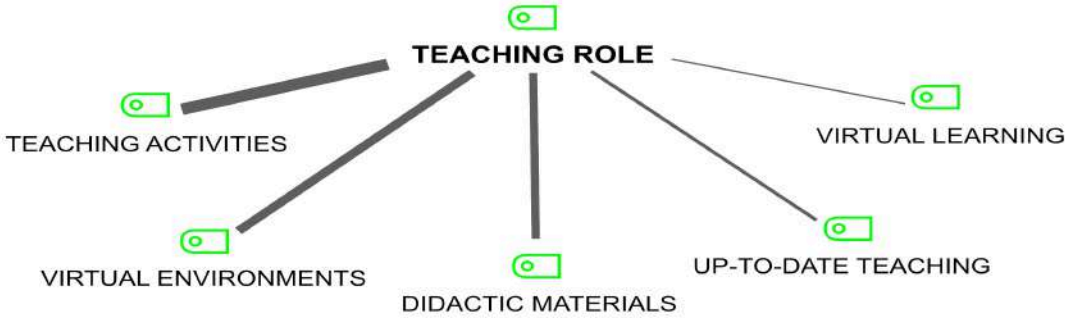

Figure 6. Subcategories of the category Teaching rol

Note: Source: Prepared with the analysis conducted with the MaxQDA program

Teaching Role

Regarding the *pedagogical functionality* category, that is to say the set of appropriate tools that serve as a means to carry out virtual teaching and learning (Suarez, 2013). It is organized into five subcategories: *learning tools, pedagogical content, assessment instruments, evaluation criteria, assessment content*, as shown in Figure 7.

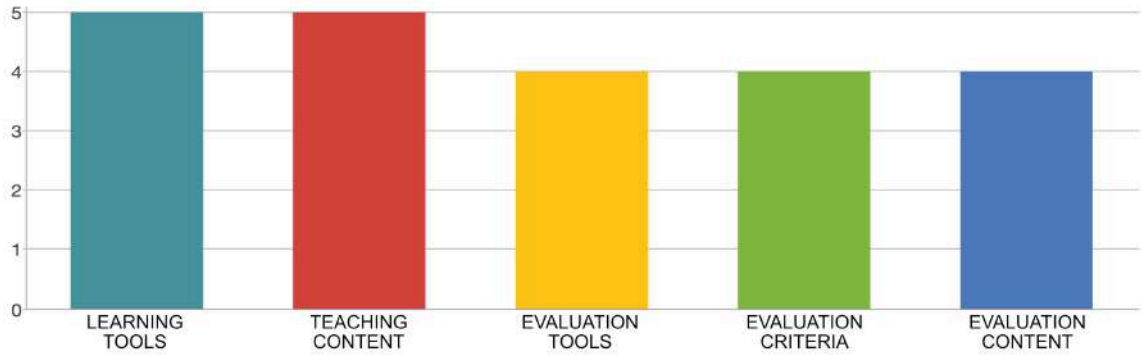

Figure 7. Results of the Pedagogical Functionality subcategories

Note: Source: Prepared with the analysis conducted with the MaxQDA program

Within the findings in the category of *pedagogical functionality* analysis, the subcategory of *learning tools* stands out, as shown in figure 7, where according to the opinions of tutors and experts, it was identified that for pedagogical purposes the most functional digital resources are forums, wikis and glossaries. These, at the same time, form the set of applications that open opportunities for educational organizations. We can reach the conclusion that learning and teaching are no longer limited to the classroom but are developed at any time of day and from anywhere, so it is important to adapt the resources so that this platform contains the basic functionalities.

As a result of the analysis of the study conducted and the application of the interviews, it was identified that in order to carry out this project it will be necessary to efficiently address the *pedagogical contents*. Such subcategory is shown with an equal importance as the first one that refers to the topics of an educational program, organized and structured in the planning of teaching, oriented towards a virtual learning.

In this sense, a pedagogical content must be elaborated in such a way that it fosters a meaningful learning. This implies offering students a set of necessary and specific activities in order to achieve this purpose, creating motivation and interest in students to carry them out.

Tutorial Action

As the fourth category the *tutorial action*: This is not an isolated activity, but rather a shared action involving the whole institution. The aim of this pedagogical work is tutoring, accompanying and monitoring in order to ensure that each student develops in the most favorable conditions possible (SEP, 2010). This category is divided into other subcategories that can be mentioned as: *implications of tutoring, new vision of the Moodle tutor, student interaction, continuous communication and digital competences of students* as shown in figure 8.

Within the findings of this category, we can highlight the subcategory entitled *tutoring implications*, where experts and tutors make comments about the tutorial action, as part of the process of teaching learning. Therefore, it should be in line with the principles and educational criteria, so the tutoring is valued as an efficient resource to serve learning.

Analyzing the data collected by the informants, represented in figure 8, the results reflect that the subcategory, *New Vision of the Moodle tutor* that is located in the second place in importance and it refers to the profile of the tutor who acts as a mediator in the exercise of the tutorial action. This tutor is considered to be an expert in the subject and to have also the basic knowledge in computer science, so that in case of not having technical support, he can solve any simple problem that is presented.

On the other hand, it is essential that the tutor teachers have the knowledge to select the adequate content and the learning resources that creates interaction, collaboration and communication in an active way. This should also promote the accompaniment of the students (ANUIES, 2014). The objective of the tutoring according to the meaning of (Romo, 2011):

> The process of accompaniment during the students' training which is specified through a personalized attention to a student or a small group of students, by competent tutors trained for this function and conceptually supported by the learning theories. (Romo 2011, 27-45).

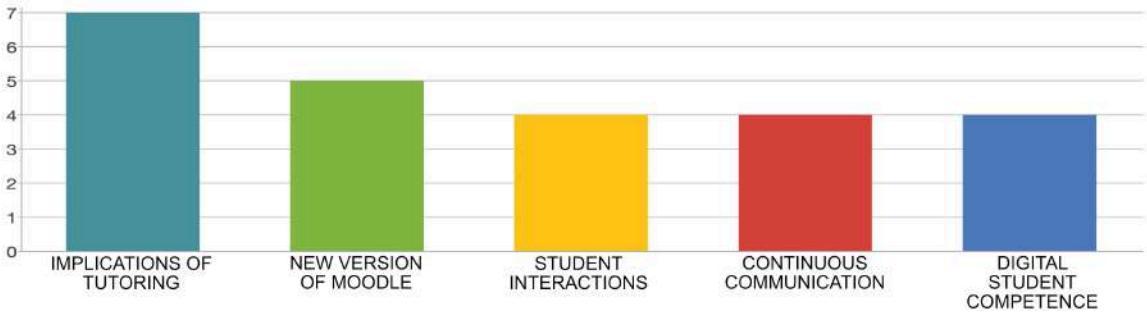

Figure 8. Subcategories of the Tutorial Action category
Note: Source: Prepared with the analysis conducted with the MaxQDA program

Discussion and Conclusions

From this research, relevant conclusions are drawn about the design of a virtual tutoring system in Moodle. These conclusions are based on the problems identified and addressed on the question of how to design a learning management system at the secondary level using the Moodle platform in order to contribute to the practice of tutorial action. It is underlined that the pedagogical elements that constitute a virtual environment in Moodle should be analyzed in order to enhance the tutorial action.

Therefore, it is concluded that it is necessary to optimize the pedagogical and didactic aspects in order to generate a virtual learning design that is attractive for the students. In this sense, Suarez (2013), Romo (2011) and ANUIES (2014) agree that even if we have a solid virtual platform, it is necessary to strengthen any activity or resource that contributes to the knowledge and training.

Regarding the hypotheses, they are corroborated, as they indicate that the Moodle platform is an effective way for carrying out tutorial action and that it is possible to manage learning and accompanying students virtually. This is achieved through optimization and interaction on the platform as well as the selection of appropriate digital resources for the development of teaching activities that generate interest and participation among students.

Likewise, it is underlined the need of a virtual learning system that is linked to the other subjects of the secondary school curriculum and that is integrated within the JADILOP schools in order to help in the integral formation of the students. Hence, it should be stressed that there should be continuous communication between teachers and tutors, in order to facilitate the transversality between the subjects taught.

Regarding the qualitative part of this research, results that contributed significantly were obtained, since categories and subcategories were identified. These categories define the characteristics to be taken into account for the design of the tutoring course with the *Moodle platform*, such as: aspects for the *pedagogical functionality*, implications of the *teaching function* and the particularities of the *tutorial action* for the effective accompaniment of the students, as can be seen in figure 9.

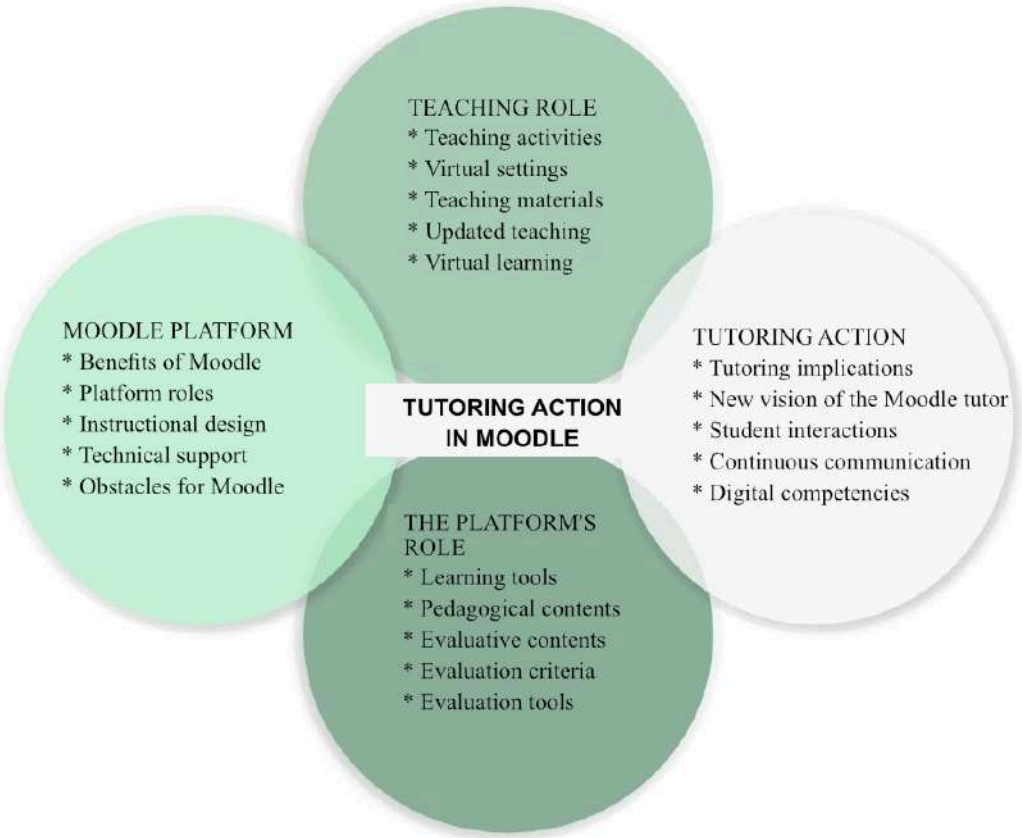

Figure 9. Tutorial action in Moodle
Note: Source: Prepared with the analysis conducted with the MaxQDA program

In this way, we have a proposal of the aspects to consider for the design of the tutorial course at the secondary level in order to strengthen the accompaniment of the students. We suggest linking the tutorial action in a transversal way with the other subjects of the study program. Although for the moment this research was carried out with second year secondary school students, it is intended to be applied to the other years of this level. This experience would allow the evaluation of the learning and the realization of the tutorial with the other students of the JADILOP school.

In addition to what has been commented, a future line of investigation, they specify the type of tools and resources that facilitate the tutorial action, as well as the impact regarding the levels of collaboration, interaction and virtual communication when carrying out courses through this modality.

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READING STRATEGIES FOR TEACHING READING SKILLS IN PEOPLE WITH HIGH-OPERATING ASD

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Abstract. This article investigates the different reading strategies that exist for people with Autism Spectrum Disorder (ASD) of level 1. First, a review of the term ASD is carried out from its beginnings with Kanner and Asperger until today . A study has also been conducted on different authors who point out the importance of reading in people with ASD. The main objective of this research is to know the different reading strategies that can be applied with the global method to promote the teaching of reading of people with high functioning ASD. The research is a bibliographic review of reading skills and strategies in ASD. For this, an English search has been carried out in different scientific education journals. All the selected articles dealt with Primary Education and the high functioning ASD. The results obtained show the different strategies that can be carried out. Due to the different strategies that can be found and the discrepancies that exist between the authors, it is convenient that reading skills in people with ASD of level 1 are taught with the global method and adapting the strategies that exist to the characteristics of each person.

Keywords: Reading strategies, ASD, global method.

ESTRATEGIAS DE LECTURA PARA LA ENSEÑANZA DE LAS HABILIDADES LECTORAS EN LAS PERSONAS CON TEA DE ALTO FUNCIONAMIENTO

Resumen. El presente artículo investiga sobre las diferentes estrategias de lectura que existen para las personas con Trastorno del Espectro Autista (TEA) de nivel 1. En primer lugar, se lleva a cabo una revisión del término TEA desde sus inicios con Kanner y Asperger hasta la actualidad. También se ha realizado un estudio sobre diferentes autores que señalan la importancia de la lectura en las personas con TEA. El objetivo principal de esta investigación es conocer las diferentes estrategias de lectura que pueden aplicarse

con el método global para fomentar la enseñanza de la lectura de las personas con TEA de alto funcionamiento. La investigación es una revisión bibliográfica sobre las habilidades y estrategias de lectura en el TEA. Para ello se ha realizado una búsqueda en inglés en diferentes revistas científicas de educación. Todos los artículos seleccionados trataban sobre la Educación Primaria y el TEA de alto funcionamiento. Los resultados obtenidos ponen de manifiesto las diferentes estrategias que pueden llevarse a cabo. Debido a las diferentes estrategias que se pueden encontrar y a las discrepancias que existen entre los autores, es conveniente que las habilidades de lectura en las personas con TEA de nivel 1 sean enseñadas con el método global y adaptando las estrategias que existen a las características de cada persona.

Palabras clave: Estrategias de lectura, TEA, método global.

Introduction

In today's classrooms, inclusion is increasingly favored by the presence of the diversity of the student body, which is very noticeable at present. This inclusion guarantees an enrichment in the teaching work and the learning process of the students since to attend to the diversity, different strategies and methodologies must be used to adapt to the individualities and needs of the students. Among the diversity, we can find students with ASD.

Currently, as stated in the DSM-V, ASD is considered as a spectrum. Therefore, its classification is dimensional. It is divided into three levels: level 1, level 2, and level 3, from less to more language impairment, repetitive behaviors, and restricted interests, respectively (American Psychiatric Association, 2014).

Therefore, in this research, the objectives, guidelines, methodologies, indications, etc. that are going to be followed and studied will be recommended to be applied to students with level 1 ASD, also known as high functioning or Asperger's.

The assistance of ASD students in the classroom together with their educational needs make necessary to take curricular measures and methodological strategies individually adapted to their characteristics and learning style (González, 2006).

Currently, ASD can be defined as a neurodevelopmental disorder of neurobiological origin. People with this disorder present an affectation in everything related to social communication and behaviors and interests. It is present since the first months of life and it is chronic. The etiology of ASD is due to various causes, such as genetic, epigenetic, or environmental factors One-third of people who present ASD are associated with Functional Diversity due to Intellectual Disability with insufficient functional adaptation. Besides, two-thirds of these people present an IQ around the average but without total independence (Hervás, 2016).

However, ASD has not always been defined in this way and throughout history, it has changed. Therefore, it is characterized by being a dynamic concept. Undoubtedly, those who set the foundations for ASD were Kanner and Asperger. But before that, there were some other authors, doctors, etc. who described, researched, and worked on this disorder. These initial contributions to ASD were based on early-onset schizophrenia, syndromes similar to schizophrenia or regressive childhood cases. The characteristics of these people made the psychiatrists in the consultations they attended expectant and interested in it. The first references to ASD are from the 16th century with Johannes Mathesius, who was Martin Luther's chronicler. In his work, he tells the story of a 12-year-old boy with severe autism. Luther referred to the boy as a mass of flesh in a soulless spirit, possessed by the devil. Luther himself insinuated that he should die of suffocation.

Another anonymous book tells the story of Friar Juniper, from the 17th century. This friar has characteristics of ASD. In the 18th century with the wild boy Victor de Aveyron, who was studied by Itard, a debate was opened on whether this boy presented ASD symptoms or was a person not corrupted by social values (Artigas-Pallares and Paula, 2012).

The Swiss psychiatrist Bleuler introduced the term autism to refer to an alteration characteristic in schizophrenic patients who distance themselves from the external reality around them. Autos, from the Greek, means oneself and ismos, from the Greek as well, refers to the way of being. Therefore, autism refers to the fact of being locked up in oneself, isolated from society (Bleuler, 1911).

Later, the Swiss psychoanalyst Jung characterized people with ASD as deeply introverted, oriented towards their inner world. Autism was believed to be a characteristic of some people with schizophrenia (Artigas-Pallares and Paula, 2012).

Kanner integrates the term autism into the current meaning, defining it as autistic impairments in affective contact employing a study of eleven patients. The origin of autism is in the coldness of the parents, especially the mothers. Moreover, the term mother fridge was adopted, a theory from which it started, years later Bettlheim (Kanner, 1943).

Later, Kanner observed that the symptoms were present from birth and that the siblings did not have the disorder, he called them "inborn autistic contact disorder". Kanner's study has a psychodynamic aspect, therefore, we should not worry about genetic, metabolic, environmental causes, etc. However, years later, it was classified as a neurodevelopmental disorder. As Kanner advanced in the study of the disorder, he called it differently, this time as early childhood autism. The nuclear characteristic that Kanner highlighted was the obsession with living in a static world where changes are not admitted. He marked some differences to distinguish autism from schizophrenia and mental retardation (Kanner, 1951; Kanner, 1954; Artigas-Pallares and Paula, 2012).

Asperger, one year after Kanner, published an article in German based on the study of four patients. In this article, he defined the concept of autism. The patients showed a pattern of behavior marked by a lack of empathy, naivety, poor ability to make friends, repetitive language, poor nonverbal communication, interest in certain subjects, motor clumsiness, and poor coordination. In his period, Asperger already advocated education in understanding people with ASD. It is believed that because of the characteristics of Asperger, he may have Asperger's Syndrome (Asperger, 1944).

Years after Asperger's publications, in the 1980s, Wing translated Asperger's work into English and introduced the term Asperger's Syndrome. However, years before, Bosch had already used this term and placed it within autism. This author introduced the term Autism Spectrum Disorder, ASD (Wing, 1981).

Another author who addressed autism was Erikson. This author advocated that children with ASD fail to make eye contact, social smile, and make physical contact that causes them to distance from their mother, resulting in social isolation (Artigas-Pallares and Paula, 2012).

The Diagnostic and Statistical Manual of Mental Disorders (DSM) has also changed the term of autism throughout history. In 1952, the DSM-I viewed autism as a childlike schizophrenic reaction, although autism was already diagnosed as a specific entity and was not included in this version (American Psychiatric Association, 1952).

In 1968, the DSM-II still viewed autism as a characteristic of childhood schizophrenia rather than a specific diagnosis. It noted that ASD could manifest itself as autistic behavior, which could be atypical or as isolation (American Psychiatric Association, 1968).

In 1980, the DSM-III incorporated the term childhood autism as a specific diagnosis. In 1987, the DSM-III-TR changes the term childhood autism to autistic disorder. Also, it named autism atypical for those cases that met many, but not all, of the features of autism (American Psychiatric Association, 1980; American Psychiatric Association, 1987).

In the years 1994 and 2000 the DSM-IV and DSM-IV-TR were published. In this manual five categories of autism were determined: Autistic Disorder, Asperger's Syndrome, Rett Syndrome, Childhood Disintegrative Disorder, and Pervasive Developmental Disorder. The sixteen diagnostic criteria of the previous DSM were replaced by six, so the diagnoses were less restrictive. This led to an increase in these diagnoses (American Psychiatric Association, 1994; American Psychiatric Association, 2000).

In 2014, DSM-V replaces the term Pervasive Developmental Disorder with Autism Spectrum Disorder. Therefore, Rett Syndrome is excluded from this classification because it is a specific genetic entity that matches autism in some symptoms. There is no genetic, cognitive, or neurobiological evidence to distinguish the subtypes of autism, so they are all included in the ASD category because the differences between them are marked by an intellectual level, language development, and other manifestations outside the autistic nucleus. The areas affected are those of communication and social interaction and activities, interest, and repetitive or restricted behaviors. Also, symptoms must be present since early childhood (American Psychiatric Association, 2014).

There is a connection between emergent reading processes and reading competence. Reading is the most important learning process in the education of students, especially for students with ASD, since everything that is observed is influenced by words, and they have strategies that help them to understand, so that they become more autonomous and competent (Akçin, 2013; Martínez, 2017).

In the research that has been carried out during all these years, it is found that many authors have stated the difficulties that people with level 1 ASD show in terms of word recognition and reading comprehension. Also, many studies show that people with high-functioning ASD do not achieve good reading and reading comprehension levels This may be due to their functional and automatic learning in reading and to the lack of contextualization and, consequently, of text understanding. That is to say that it is related to the Weak Central Coherence Theory since they focus on details and do not integrate information into a coherent and general whole, which makes it more difficult to understand the text in its entirety (Frith, 1989; Mayes and Calhoun, 2003; Wahlberg and Magliano, 2004; Nation, Clarke, Wright and Williams, 2006; Newman, Macomber, Naples, Babita, Volkmar and Grigorenki, 2007; Asberg, Dahlgren and Sandberg, 2008; Huemer and Mann, 2010; Estes, Rivera, Bryan, M., Cali and Dawson, 2011; Norbury and Nation, 2011; Brown, Oram-Cardy and Johnson, 2013; Ricketts, Jones, Happé, and Charman, 2013).

Children with level 1 ASD often have delays in language acquisition, reading, and consequently in writing. However, this delay may not be due to limitations in the basic processes of access to written code, nor to cognitive development (Saldaña, 2008; Axe and Sainato, 2010).

On the contrary, other authors believe that the reading difficulties may have their origin in the cognitive, behavioral, and verbal problems associated with ASD (Mayes and Calhoun, 2003; Nation and Norbury, 2005; Williamson, Carnahan, and Jacobs, 2012).

Other authors point out as the main responsible for the lack of reading skills, spontaneous speech, global meaning capture, etc. to what is known as the Weak Central Coherence Theory. According to this theory, it does not allow people with ASD to notice

the global meaning of texts, words, and also makes them present vocabulary problems, among others (Frith, 1989; Frith and Happé, 1994; Happé and Frith, 2006).

Children with level 1 ASD need to learn how to read because their learning is cumulative. This can explain that usually, children with ASD learn to read memorizing words (Vacca, 2007; Benitez, Catalá and Domeniconi, 2016).

Students with high-functioning ASD have a variety of problems when they are learning to read, including attention problems, lack of motivation, and problems decoding words, among others (Vacca, 2007).

It is necessary to show commitment to work on emergent reading processes to improve the difficulties in the conceptualization of the image of students with Asperger's. That is to say, to improve communicative processes and acts and to know how to control and understand better the environment that surrounds them. In short, the aim is to develop linguistic competence through the opportunities offered (Martínez, 2017).

Until relatively recently, there were discrepancies between the authors, as some pointed at the global method as the best method for learning to read in normotypical people. On the other hand, others opted for the phonetic method, using phonological strategies to acquire phonological awareness. Nevertheless, nowadays these discrepancies are solved. Therefore, the phonemic method is established as the best method for the initiation of learning to read for normotypical people due to the acquisition of phonological awareness by the students. On the contrary, people with ASD learn to read by the global method with the use of pictograms. This is due to the difficulty in developing phonological awareness in people with ASD (Ventoso, 2003; Vacca, 2007; Chamorro, 2011; Martínez, 2017).

Teaching reading skills to a child with level 1 ASD can be very challenging because some children may never learn to read. However, high-functioning ASDs can learn to read and become excellent readers. Children with level 1 ASD have difficulty practicing some of the language skills needed to read. As a result of the lack of these necessary reading skills, they have difficulties in pragmatics, guesswork, social conversation, etc. Therefore, they must learn to read to develop their speech. Because, as many authors point out, the basis of reading is talking and conversing later on (Montfort and Juarez, 2004; Vacca, 2007; LaBarbera and Soto-Hinman, 2009; Kim, Rispoli, Lory, Gregori and Brodhead, 2018).

Children with high-functioning ASD have pragmatic deficits that affect communication proficiency, that is to say, non-verbal communication skills, conversation, and narrative skills. Also, other difficulties that they present are related to narrative skills because of their deficiencies in organization, comprehension, and coherence. This is due to their difficulties in Theory of Mind as they do not infer why the characters do what the story tells. It should be noted that true learning and significant progress, for the person with level 1 ASD in language development, occurs when he understands words for which there is no established physical or visual representation, that is to say, for abstract terms (Vacca, 2007).

Therefore, due to the importance of learning to read in people with high functioning ASD, this research aims to find out strategies for teaching reading in people with level 1 ASD. Also, it aims to promote reading instruction in people with high functioning ASD since the development of reading skills will make them more autonomous because they will understand their environment better and will make them more functional. Besides, it is necessary to encourage the practice of the different strategies taking into account the characteristics of the students with level 1 ASD or Asperger's, since the reading way of learning must be personalized and adapted to the students.

Method

Specifically, the research is proposed to find strategies for teaching to read to people with high-functioning ASD.

Design

The design of this research has been a bibliographic review of different scientific documents and articles that are related to reading skills and strategies and ASD.

Strategies for searching

The searching strategies that have been followed are, firstly, a search in the ERIC database (Education Resources Information Center), also a search in the Psychology Database of Proquest and EBSCOhost. The search was conducted in English, in all databases, with the following search equations: literacy programs OR reading instruction AND Autism OR ASD AND primary school students OR elementary education OR elementary schools OR elementary school teachers OR elementary school students.

Articles that did not contain the link to the full text in the ERIC database, nor in Proquest's Psychology Database databases had a link that redirected to SAGE Journals and in this database the full text of the article was accessible.

Inclusion Criteria

The inclusion criteria followed were based on the fact that the studies had to be carried out in Primary Education for people with high-functioning ASD, level 1 or Asperger's, and that they also included strategies for learning to read in people with ASD. On the contrary, we have excluded those articles that did not show anything referred to the reading strategies of students with ASD in Primary Education.

Data extraction

For data extraction, a search was made in ERIC, Psychology Databases of Proquest, and EBSCOhost. From the total of the results of these databases, 20 articles were selected, after having read their abstract, which contained relevant information for this review.

Data analysis

The analysis of these articles has allowed us to detect the different reading strategies that can be carried out with students with ASD in Primary Education. Different classroom structures, groupings, methodologies, materials, resources, and areas of development have been taken into account.

Results

It is very difficult for people with ASD to learn to read since many of them communicate through Augmentative and Alternative Communication Systems (AAC)(Vacca, 2007).

One of the programs based on AAC, on visual agendas, more specifically, is the TEACCH Method (Treatment and Education of Autistic Related Communication Handicapped Children). The Method was created at a state level by the North Carolina

government. It was launched by the North Carolina University in 1966 to help people with ASD and their families. Schopler co-founded it around 1972. At the University of North Carolina, the "TEACCH Division" was created to serve the community with educational centers, families, etc. It was then applied in all schools and other countries. The TEACCH Method aims to reduce the stress of living with a child with ASD and to enhance the child's intellectual development through community activities. However, the main objective and the ones that should be given more importance are those referred to as the independence and autonomy of people with ASD. This method aims to improve the motor area, improve language, through the teaching of basic reading skills, and increase motivation. It is a very visual method as it works through pictograms. Environments must be very structured and individual work and tasks must always be presented through agendas so that they know how to plan the day (Schopler, Lansing and Waters, 1983; Schopler, 2001).

Children with level 1 ASD can be taught to read through visual aids or pictograms. They think in pictures, as they are visual, that is to say, that they make pictures of the words in their mind. The reading method must be appropriate, as well as the level that must be adapted to their characteristics. For example, reading fantasy is a challenge for them because of the complexity of the abstraction that this genre involves. Therefore, they should read stories based on reality and that are of interest to them. To sum up, it is important, for a child with level 1 ASD to begin to read and show interest in reading, to use visual supports, and allow them to start from his concerns, so that he pays more attention. In addition to reading through pictograms, the use of self-instructions should be taken into account since it will help them to understand their environment and to organize themselves better (Ventoso, 2003; Vacca, 2007; Almalki, 2016).

In contrast, other studies show that when children are learning to read it is advisable to substitute pictures for words as an effective way of learning to read. It is important to move from pictures to letters and to combine words with pictures as it is a prerequisite for achieving the reading comprehension (Miguel, Yang, Finn & Ahearn, 2009).

Some studies show that learning to read in people with high-functioning ASD is more effective and occurs in less time with the use of specific digital programs for this task. Through the use of digital media such as computers or tablets, this type of student is more motivated and shows more interest in learning to read. This motivation and interest make the predisposition greater and therefore the learning of reading skills occurs earlier (Heimann, Nelson, Tjus and Gillberg, 1995; Pennington, 2010; Yaw, Skinner, Parkhurst, Taylor, Booher and Chambers, 2011; Grindle, Hughes, Saville, Huxley and Hastings, 2013; Omar and Bidin, 2015; Bailey, Arciuli and Stancliffe, 2017).

However, some studies show the advantages and effectiveness of the method of teaching reading through digital media programs. While other studies, in contrast, point out that, in most cases, learning without digital media is more effective. Also, several studies are showing that the effectiveness of learning to read in people with level 1 ASD is the same whether it is done without or through digital media (Coleman, Cherry, Moore, Park and Cihak, 2015).

Also, learning to read is more effective if the child with ASD is included in the regular classroom, and he works through small cooperative groups. This increases and improves academic results and has positive effects among students. Besides, this improves interactions and helps to understand the environment of students with Asperger's. In short, it fosters and improves the social skills of this type of student (Kamps, Barbetta, Leonard and Delquadri, 1994; Ledford, Gast, Luscre and Ayres, 2008;

Whalon, Otaiba, and Delano, 2008; LaBarbera and Soto-Hinman, 2009; Kim, et al., 2018).

In contrast, other studies indicate that learning is more effective when it is done individually and through direct instruction programs, that is to say, the term known as Direct Instruction (DI), because they improve and implement their understanding. They then move on to combine this with cooperative group work with their peers in an ordinary classroom. Thus, they will acquire strategies for social relationships (Flores and Ganz, 2007; Flores, Nelson, Hinton, Franklin, T., Strozier, Terry, Franklin, 2013; Roux, Dion, Barrette, Dupéré and Fuchs, 2015; Shillingsburg, Bowen, Peterman and Gayman, 2015; Braun, Austin and Ledbetter-Cho, 2017; Head, Flores and Shippen, 2018).

In short, they would first work individually with direct instructions and then combine these direct instructions with cooperative group work as this would make their development more complete (Flores and Ganz, 2007; Flores et al., 2013; Braun et al., 2017; Head et al., 2018).

However, other authors complement these direct instructions with the recognition of words that are close to their environment or that they already know. This is designated as Sight-Word, through simultaneous printing, Simultaneous Prompting (SP). Thanks to this, we start from what the person already knows and this makes him show more interest and understand better the meaning of the reading. Simultaneous printing is a strategy in which an instructional prompt is presented. For example, the student is shown the word "dog" in written form and the teacher says "dog" so that the student immediately repeats "dog". This technique of Simultaneous Prompting is very effective in learning to read for people with level 1 ASD because the learning occurs without error. It helps them to access the curriculum, and to have more fluency and reading comprehension (Ehri, 2005; Browder, Wakeman, Spooner, Ahlgrim-Delzell, Algozzine, 2006; Waugh, Alberto, and Frederick, 2011; Akçin, 2013).

Other studies show that an effective strategy for learning to read in people with high-functioning ASD and for improving reading comprehension is through story mapping (Browder, Root, Wood, & Allison, 2017).

Some studies show that an effective technique would be to present reading as a fun activity using visual materials of great interest for the student. Also, the reading method to be used will be a comprehensive method, using phonological strategies for learning to read. The global method should be put into practice in readings from close contexts, social stories, and comic strips. If the reading is made to be based on their interests, it will be an attractive activity for the person with level 1 ASD. To do this, it must contain visual materials, for example, with the comic strips and deals with the context in which it takes place. Besides, through reading, you can teach rules and other social content so that they can understand them (Vacca, 2007).

Also, it is important that parents are involved and practice reading at home, so that the natural context will be the starting point. This is a methodology for working with people with level 1 ASD that has been very popular in recent times. In addition, the behavior of the parents as a model is decisive in the learning process of the children since the latter will learn social skills from the interrelationship with them. These skills will later be extended to school interrelationships (Benitez et al., 2016).

Discussion and Conclusions

According to this review, despite the real difficulties that exist for people with high-functioning ASD or Asperger's to learn to read and understand reading, different methodological strategies can be used.

Therefore, most of the authors agree that the TEACCH Method is an adequate method for the learning of reading skills of people with level 1 ASD since it works through pictograms or visual supports. Also, some studies show the benefits for reading comprehension, of presenting the image together with the word. Other authors complement the work with pictograms with the use of self-instructions. These two techniques will help them to better understand their environment, to learn to control themselves and, therefore, to be more independent (Schopler et al., 1983; Schopler, 2001; Ventoso, 2003; Vacca, 2007; Miguel et al., 2009; Almalki, 2016; Browder et al., 2017).

The reading method, par excellence for people with high-functioning ASD, is the global method. This method will make their reading skills more functional, and they will learn better (Vacca, 2007).

Other studies focus on the grouping type. Most studies show that teaching and learning reading skills are more effective and help improve the social development of the person with Asperger's. This will happen if this type of student is included in their regular classroom, for example, through small cooperative groups. In contrast to other studies, better results are obtained if students with level 1 ASD are not included in their regular classroom during the learning process of reading. Furthermore, according to other studies, better results are obtained when at the beginning of the teaching-learning process of reading the student is not included in his ordinary classroom and as he progresses, he is included in cooperative groups of his model classroom (Kamps et al, 1994; Flores and Ganz, 2007; Ledford et al., 2008; Whalon et al., 2008; LaBarbera and Soto-Hinman, 2009; Flores et al., 2013; Roux et al., 2015; Shillingsburg et al., 2015; Braun et al., 2017; Head et al., 2018; Kim et al.,2018).

Meanwhile, other studies pay more attention to strategies for teaching reading to people with level 1 ASD. Some show that better results are obtained in the reading skill of this type of student with the sole use of direct instructions. While others have shown that good learning outcomes of reading skills have been achieved in high-functioning ASD students with the combined use of direct instruction, simultaneous printing, and Sight-Word. Also, some studies highlight the development of Story Mapping as a strategy for learning to read for people with ASD (Ehri, 2005; Browder, et al., 2006; Flores and Ganz, 2007; Waugh et al., 2011; Akcin, 2013; Flores et al., 2013; Roux et al., 2015; Shillingsburg et al., 2015; Braun et al., 2017; Browder et al., 2017; Head et al, 2018).

On the other hand, some studies emphasize the methodology and resources used. Regarding the methodology, some authors have shown in their studies that learning to read comes earlier if it is carried out using a traditional methodology and traditional resources. However, due to the implementation of Information and Communication Technologies (ICT) in the classroom in recent years, there has been an increase in the number of research in which reading is taught through digital media, for example, with the use of the tablet or the computer. These studies that combine the traditional method with ICT resources for teaching reading skills show better results than studies that have been carried out with traditional methodology and resources. ☺ On the contrary, other studies show similar results if reading is taught using the traditional method and traditional resources than if it is taught using ICT resources (Heimann et al., 1995; Pennington, 2010; Yaw et al., 2011; Grindle et al., 2013; Coleman et al., 2015; Omar and Bidin, 2015; Almalki, 2016; Bailey et al., 2017).

Some authors also stress the importance of planning, directing, and structuring the meant reading practice. Also, it is important to eliminate stereotypes and to trust that students with ASD can learn. Enthusiasm for progress should also be shown, as motivation plays a major role. Therefore, they should start from their interests and previous knowledge, so that they can later make associations with the outside world and

with themselves, always from the text. The learning that takes place should be by modeling and without error through multisensorial materials. The person teaching these students to read will have to be very persistent and repetitive. There must always be great coordination among all the educational agents, and they will be offered many opportunities to practice the exercise of reading (Vacca, 2007).

Furthermore, other studies in their results show the importance of the involvement of all educational agents, including families, to adequately developed the reading skills of people with level 1 ASD. Since with these persons, persistence, involvement, and concordance between the different environments in which they develop are very important (Benitez et al., 2016).

In short, pre-reading and reading skills are important for all people, especially people with ASD, and especially people with level 1 ASD, as they will be able to understand pictograms and all the visual cues around them. Regardless of the methodology, supports, strategies, etc. used to develop reading skills, it is important to find what motivates and interests them and to start from their previous knowledge (Carr, Levin, McConnachie, Carlson, Kemp and Smith, 1996; Vacca, 2007; Akçin, 2013; Robledo, 2017).

Although many people with ASD cannot acquire reading skills academically, they must be functional in this ability to generalize knowledge. This is since, like that, they increase their opportunities to express themselves and to be independent and autonomous. Also, it fosters the ability for relating, communicating, connecting with others, anticipating simple routines, and even decreasing problematic behaviors such as tantrums, in short, improving their quality of life. Because 9 out of 10 problematic behaviors have a communicative purpose, if students with ASD are taught reading skills, they will develop speech more optimally and will have more ease to communicate and express themselves. That is to say, problematic behaviors in general, and especially those that have a communicative origin will be reduced (Carr et al., 1996; Akçin, 2013; Robledo, 2017).

Reading skills for ASD people are very important, so many authors have written about the relationship between reading and ASD. This may be because reading is one of the main ways to access the curriculum. In addition, reading is the beginning of speech development for those with preverbal ASD. Consequently, if these people develop speech correctly, they will be able to relate and maintain social relationships. Besides, they will be able to be more functional socially and academically, perhaps even a little more autonomous.

Despite the difficulties that people with level 1 ASD have in learning to read, the different strategies that can be implemented and the various reading methods that exist. Recently, there has been a discussion about the connection between teachers' knowledge of reading and their students' achievements in this reading skill. Therefore, it is confirmed that the deeper the knowledge of teachers about reading, the better their students will learn to read. They will have different resources and strategies to teach reading successfully (McCutchen, Green, Abbott, & Sanders, 2009; Piasta, Connor, Fishman, & Morrison, 2009; Podhajski, Mather, Nathan, & Sammons, 2009).

The limitations found in this research have been the limited knowledge that exists about the reading strategies and methods that can be used to teach reading skills in people with level 1 ASD. This is due to a limited number of research on this topic. Therefore, more research must be carried out.

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EXTRACURRICULAR ACTIVITIES AND ACADEMIC PERFORMANCE: DIFFERENCES BY GENDER AND PUBLIC AND CHARTER SCHOOL

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Abstract. How does students' participation in extracurricular activities affect their academic performance? This question has become a topic of debate in the educational community, even extending into the social sphere. This study used a quantitative, non-experimental, descriptive, cross-sectional methodology to analyze any existing relationships between participation in extracurricular activities and academic performance, also taking into account gender and type of school (public vs. charter), to determine whether there were significant differences according to these variables. A total of 620 primary school students from ages 10 to 12 participated in the study (M = 10.35; SD = 0.63). The results showed significant, positive relationships between the number of extracurricular activities and academic performance in Language Arts; and significant, negative relationships between time devoted to recreational activities and performance in English as a Foreign Language. Overall, the girls participated in more extracurricular activities than the boys. The boys participated in a greater number of sports activities, and participation in sports was also greater among students of the charter schools. It is possible that sociocultural context and family economic level are decisive in whether students participate in these activities, and consequently in the conclusions that may be drawn about their relationship to variables like academic performance.

Keywords: Academic performance, extracurricular activities, primary education.

ACTIVIDADES EXTRAESCOLARES Y RENDIMIENTO ACADÉMICO: DIFERENCIAS SEGÚN EL GÉNERO Y TIPO DE CENTRO

Resumen. La repercusión de la realización de actividades extraescolares en el rendimiento académico de los estudiantes se ha convertido en un tema de debate entre la comunidad educativa que trasciende incluso al ámbito social. Este estudio de metodología cuantitativa, no experimental, descriptivo y de corte transversal tiene como

objetivo general analizar las relaciones existentes entre la realización de actividades extraescolares y el rendimiento académico, considerando además el género y el tipo de centro para conocer si existen diferencias significativas atendiendo a dichas variables. Participaron 620 estudiantes de tercer ciclo de Educación Primaria con edades comprendidas entre los 10 y 12 años (M = 10.35; DT = 0.63). Los resultados revelan relaciones significativas y positivas entre el número de actividades extraescolares y el rendimiento académico en Lengua Castellana y negativas entre el tiempo dedicado a actividades recreativas y el rendimiento en Lengua Inglesa. Además, las niñas realizan más actividades extraescolares que los niños, son ellos los que mayor número de actividades deportivas realizan, siendo también estas actividades las que realizan con más frecuencia los estudiantes de los centros concertados. Es posible que el contexto sociocultural, así como el nivel económico familiar, sean determinantes para la realización de este tipo de actividades y en consecuencia para sacar conclusiones de su relación con variables como el rendimiento académico.

Palabras clave: Rendimiento académico, actividades extraescolares, educación primaria.

Introduction

Extracurricular activities, also known as extra-academic activities, are those activities performed by students that fall outside the realm of the normal curriculum of the school. Although they might not be held by the school, schools can offer them (Moriana et al., 2006). Extracurricular activities are one of those factors included in the academic setting that positively affect a student's performance. Few studies focus on analyzing and comparing the type of extracurricular activities and the number of hours dedicated to them with the impact it has on academic performance. This suggests more studies in this field. There is still no conclusive evidence between extracurricular activities and better academic performance. However, significant differences depending on gender and grade have been reported, as well as differences in performance between students who carry extracurricular activities and those who do not. Due to that, depending on the activity type and time spent on it, students perform differently (Pros, Muntada, Marqués, and Busquets, 2015).

The current debate on the advantages or benefits thanks to extracurricular activities, the time spent on them, and the number or type of activities that affect not only education in our society. At a time when teachers are concerned about any type of health of the learners, it is key to analyze the impact these activities have on their lives. Taking part in these activities begins from Early Childhood Education, where the young students attend extracurricular activities for the first time. It takes place while their parents are at work, so the demand and number of these types of activities have been raising even among schools, placing them between babysitting and educational moment (Varela, 2006).

Among the different factors that can affect the learning process and performance, the role of some curricular and extracurricular activities is key. It is so important that it goes beyond the empowerment, addition, or performance support, being such crucial for the development of personal and emotional well-being.

We have mentioned two different types of activities: extracurricular activities, that are carried out outside the realm of the normal curriculum of the school, and extracurricular activities that take place within the school environment, which complement what has been learned during the school day. Despite this denominations, the two of the terms have been used as synonyms even though their difference is clear. In the first, the activities are planned by the parents and in the second by the school. The case of extra academic activities precisely chosen

and planned by the schools may be more appropriate and beneficial than other cases, since those are not planned according to the needs of students and often lack of a logical and coherent sense (Moriana et al., 2006).

Studies on extra academic activities and academic performance are still not conclusive, as they are not well grounded and still not valid due to the use of unsubstantiated methodological methods (Fashola, 2001; Olsen, 2000). A study based on extracurricular activities and academic performance at a behavioral level on teenagers has been held. However, this has not been the case for elementary school students. These types of studies still few in their area (Hidalgo 2005; Moriana et al., 2006).

Some studies report that students whit extracurricular activities are far more committed and have better academic results than those without this type of activities (Duncan, 2000; Gillman, 2001). There is a direct effect between participating on these activities and a low drop-out rate, with higher levels of student motivation (Holloway, 2002). When students perform extracurricular activities, the difference in their academic or sports skills compared to those who do not is significant and results in better scores (Varela, 2006). Also, students who participate in more than one sport or academic activity perform better than those who only participate in one activity, be it academic or sports.

When comparing the performance between students who do participate in both sports and extracurricular activities, and those who only take part in one, students with only extra academics activities perform better. There are general differences in academic performance depending on the type of activities, be it academic, sports, free time, or recreational. These significant differences are observed in the group of students who participate in academic activities, is not so significant in students with physical activity (Martínez and Bernal, 2015; Moriana et al., 2006; Rodríguez, Delgado and Bakiera, 2011). There are differences as well in academic performance for students who take part in extracurricular or extracurricular music activities within the school (Jábega, 2008) or at music conservatories, resulting in better performance in Mathematics (Vílchez, 2009).

Most of the studies from this century carried out on this topic, in and outside Spain, focuses on physical activity to analyze its direct or indirect effect on academic performance (Booth et al., 2013; Bradley, Keane and Crawford, 2013; Esteban-Cornejo et al., 2014; González and Portolés, 2014; Martínez and Bernal, 2015; Paz-Navarro, Roldán and González, 2009; Ramírez, Vinaccia and Suarez, 2004). Some of them report better academic performance and higher levels of motivation in students who took part in physical activities, resulting in a positive connection between sports and academic performance.

Students taking part on physical activities tend to have better concentration skills, a healthier brain and a better learning process (Tremblay, Inman and Willms, 2000) resulting on better results in Mathematics, Spanish, English, and Sports, being especially significant on English and Sports (Castelli, Hillman, Buck and Erwin, 2007; González and Portolés, 2014; Alfonso-Rosa, 2016). However, excessive exercising (more than five hours a week) can result in worse marks than when practicing moderate physical activity, between 2 and 5 hours a week, which is related to better academic performance (Clariana et al., 2015; Pros et al., 2015).

A connection has been reported between extracurricular activities, personal and social maturity, critical thinking (Bauer and Liang, 2003), interpersonal skills associated with higher educational grades, higher expectations and ambitions, more commitment, and better attention skills (Mahoney, Cairns, and Farmer, 2003).

Regarding gender, the results report greater participation from males compared to females (Hermoso, García, and Chinchilla, 2010; Pros et al., 2015). Concerning the time spent, some studies report a lower performance when zero or more than 10 hours are spent While spending the average time, that is between 5 and 6 hours, combining sports, recreational and academic activities, result on better academic performance (Pros et al., 2015).

The results are not conclusive, some studies report negative effects results, indicating that sometimes extracurricular activities have negative consequences on children, such as lack of concentration, lack of good sleep, tiredness and stress (Cladellas, Chamarro, Badia, Orbest and Carbonell 2011). Consequences that arise from the family status and the parents look for extracurricular activities for their children to be taken care of so they can fulfill their workday. In some cases, the families themselves are the ones to think of the benefit these extracurricular activities can bring if they take part in it. Therefore, some studies report nor significant neither positive connections between the studying techniques, academic performance and participation in activities outside the school context (Moriana et al., 2006), while others report many benefits of this type of activities, based on extra academic and extracurricular contexts (Noam, Biancarosa and Dechausay, 2003). Students taking part in some type of extracurricular activity improve their academic performance (Duncan, 2000; Pros et al., 2015) thereby obtaining academic and social benefits, plus their attention skill increases. For example, in the area of Mathematics, where thinking demands an effort. Extracurricular physical-sports activities affect positively the marks in Mathematics, Spanish, and languages (Cladellas, Clariana, Gotzens, Badia and Dezcallar, 2015).

Based on the above, the following study is aimed to analyze the connections between extracurricular activities and academic performance, taking into account the type of activities, the time spent, with gender and type of school (public or private) as independent variables.

Method

Design

This study is based on quantitative and non-experimental methods, with a differential cross-sectional, descriptive, correlational, and inferential basis.

Participants

Incidental non-probability sampling. The study includes 620 Key Stage 2 students (5th and 6th grade) of Elementary Education belonging to nine schools (3 state and 6 private schools) of the intermediate social and economic level of the educational system of Cantabria, (Spain) Among them: 37.74% (n = 234) from state schools, and 62.26% (n = 386) from private schools, with a total of 329 males (53.06%) and 291 females (46.94%) aged between 10 and 12 years (M = 10.35; DT = 0.63). There are no significant differences in gender depending on the type of school (2 = 1.529; p> .05)

Once the permissions requested and the informed consent of the families, the questionnaire was applied to the students during school hours by the research team. The purpose of the study was explained to the students, guaranteeing the anonymity and confidentiality of the data collected.

Instruments and variables

A sheet ad hoc was used to collect information on socio-demographics (age, grade, sex, and school) as well as to collect information on extracurricular activities carried out by students. A question is asked and students have to mark the activities or classes they attend Monday through Friday after school hours. To answer each question, they are given nine options that they must mark with a cross. Next to the cross, they have to write down the number of days per week they practice that activity and the number of weekly hours they spend on it. The options are followed in this order: private tutoring or educational support, foreign language classes, music, drawing or painting, computing (ICT), sports, theatre, dance, others. With the data collected, two other variables are defined:

- Total number of activities that students do per week after school hours
- Total hours per week destined for activities after school hours.
- Other three variables consist of grouping extracurricular activities into three types depending on the purpose and defined by the number of hours spent on them, such as:
- Cognitive/academic activities: including private tutoring or academic support classes, foreign language classes, music, drawing/painting, computing (ICT).
- Sports activities: such as soccer, athletics, basketball, etc.
- Recreational activities: these include performance activities such as theatre, dance, as well as other activities listed above in (others).

Academic performance was analyzed based on marks in the subjects of Spanish, Mathematics, and English, given by each teacher from each group-class, and a general academic performance estimation was obtained calculating the average of these three variables.

Data Analysis

Several descriptive and correlational analyses were made. After examining the goodness of fit with the Kolgomorov-Smirnov test, it was verified that the variables did not meet the principle of normality, therefore we decided to use non-parametric statistical tests. The correlational analysis consists of calculating Spearman's Rho statistical coefficient. Followed, differential analysis is performed with the Mann-Whitney U test for two independent samples taking into account the extracurricular activities and academic performance variables depending on gender and type of school (state/private).

Finally, we look for any academic performance differences based on the time spent on extracurricular activities by making groups of three based on the mean and standard deviation of this last variable. This differential analysis is performed using the Kruskal-Wallis H test for k independent samples.

All descriptive, correlational, and inferential analyses were performed using the SPSS (Statistical Package for Social Sciences) version 24.0.

Results

Descriptive Analysis

During extracurricular activities analysis, we take into account the number of activities carried out by the students throughout a school week, and the hours spent on them. The results shown in Table 1 indicates a mean of 2.02 activity done by the students per week, and a 5.51 hours mean of time spent on them. The highest mean regarding extracurricular activities, that is 2.53, corresponds to all the academic/cognitive activities students spent time on per week, followed by physical activities with a mean of 2.18 hours.

Table 1

Descriptive statistics on the variable extracurricular activities

	M	***DT***	**Average**	**Man.**	**Max.**
Number of extracurricular activities	2.02	1.129	2	0	7
Hours spent on extracurricular activities	5.51	3.457	5	0	20
Hours spent on cognitive/academic activities	2.53	2.624	2	0	14
Hours spent on sports activities	2.18	2.218	2	0	13
Hours spent on recreational activities	0.83	1.538	0	0	18

Most of the students (35.1%) carry out two extracurricular activities per week. Those who carry out only one represents (26.8%). Students and with three activities represent (22.5%), while only 6.9% of the total do not attend extracurricular activities (Figure 1).

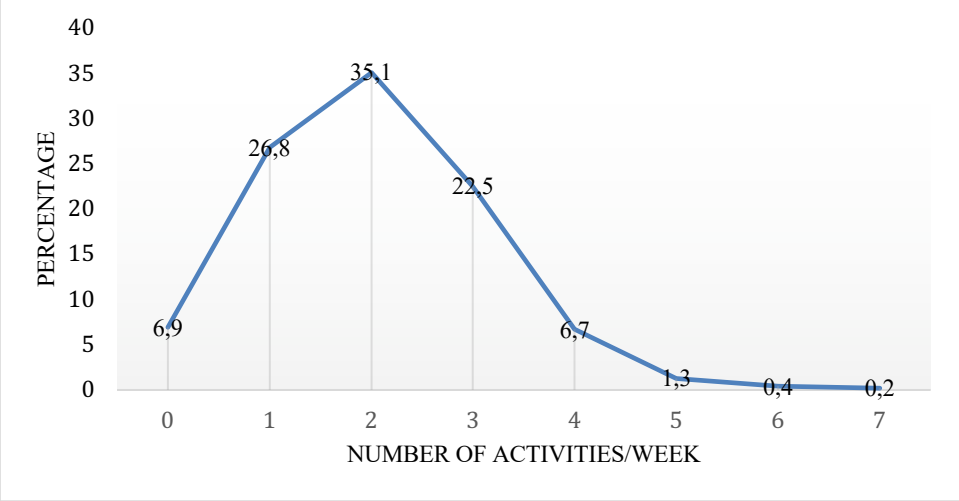

Figure 1. Percentage distribution of the number of extracurricular activities attended per week.

A descriptive analysis based on each of the extracurricular activities that appear on the ad hoc questionnaire is shown in Table 2. This analysis reports that the activities in which students spend more time after school hours are sports activities ($M = 2.18$) followed by private support classes or school reinforcement ($M = 1.01$).

Table 2

Mean, standard deviation, median, minimum and maximum of each extracurricular activity

	M	***DT***	**Average**	**Min.**	**Max.**
Academic support classes	1.01	2.070	0	0	12
Language	0.92	1.239	0	0	6
Music	0.43	1.233	0	0	10
Art	0.09	0.421	0	0	4
Computing (ICT)	0.08	0.348	0	0	4
Sports	2.18	2.218	2	0	13
Theatre	0.11	0.362	0	0	4
Dance	0.36	1.044	0	0	8
Others	0.38	0.983	0	0	10

Data about the other extracurricular activities carried out by the students is found on the qualitative analysis of the questionnaires. It includes typing, robotics classes, attendance at meditation and yoga sessions, mediation training, welfare centers for social and educational challenged students, chess, tambourine, ecological gardening construction and maintenance, and skating.

The analysis of the three groups of extracurricular activities according to the purpose (academic/cognitive, sports, and recreational activities) concludes that 46% of students spend most of their time performing cognitive/academic activities, 39% on sports activities while only 15% attend recreational activities.

Correctional Analysis

The correlation analysis performed is based on the variables included in extracurricular activities (Table 3). The results conclude that there is a significant positive connection between the number of extracurricular activities performed, and the time spent on them, be it cognitive/academic activities, sports, and recreational activities (in hours). A significant negative connection on the time spent on sports and recreational activities is observed. There is no significant correlation between time spent on cognitive/academic activities and time spent on sports and recreational activities.

Table 3

Correlations between extracurricular activities variables

	ACTEX	HOREX	EXAC	EXDE	EXRE
ACTEX	1	.645**	.587**	.224**	.357**
HOREX		1	.710**	.490**	.208**
EXAC			1	-.015	-.010
EXDE				1	-.246**
EXRE					1

Note: ACTEX: Number of extracurricular activities carried out; HOREX: Hours of extracurricular activities per week; EXAC: Hours of cognitive/academic activities per week; EXDE: Hours of sports activities per week; EXRE: Hours of recreational activities per week; ** $p<.01$ * $p<.05$

The results of correlation analysis between extracurricular activities and academic performance variables are displayed in Table 4. As shown, a significant positive connection between extracurricular activities and Spanish academic performance is reported. On the other hand, the correlation is reported negative between the number of hours spent on recreational activities and academic performance in English.

Table 4

Correlations between extracurricular activities and academic performance

	RLC	RM	RLI	RG
Number of activities carried out	.090*	.058	-.001	.057
Hours per week	.053	.027	.033	.045
Cognitive/academic activities	.039	.035	.046	.047
Sports	.065	-.018	.043	.029
Recreational Activities	-.027	.012	-.107*	-.038

Note: RM: Academic performance in Mathematics; RLI: Academic performance in English; RG: General academic performance; ** $p<.01$ * $p<.05$

Differential analysis of extracurricular activities and academic performance based on gender and type of school

A differential analysis between extracurricular activities and academic performance is carried out based on the Mann-Whitney U calculation taking gender into account. The results show significant differences between the number of activities, the time spent on sports, and the number of hours spent on recreational activities. In the case of academic performance, the

results indicate no significant differences based on gender in any of the subjects considered in this study, nor general academic performance (Table 5).

Table 5

Mann-Whitney U test comparing the type of extracurricular activities with academic performance regarding gender

	U	**Z**	***p***
Number of extracurricular activities	28641.500	-2.952	.003*
Hours of extracurricular activities	33115.500	-.215	.830
Hours of cognitive/academic activities	32364.500	-.669	.503
Hours of sports activities	24504.000	-5.418	.000**
Hours of recreational activities	22002.000	-7.928	.000**
Academic performance in Spanish	33345.000	-.080	.936
Academic performance in Mathematics	33323.500	-.251	.802
Academic performance in English	33058.000	-.251	.802
General Academic Performance:	33161.500	-.187	.851

Note: *p<.05; **p<.001

Females perform a greater number of extracurricular activities (M = 2.17) than males (M = 1.89). Also, the time spent on sports is greater in males (M = 2.58) while females spend fewer on this type of activities (M = 1.71), different in what refers to recreational activities, where females scores are (M = 1.35), higher than the (M = .39) of males (Figure 2).

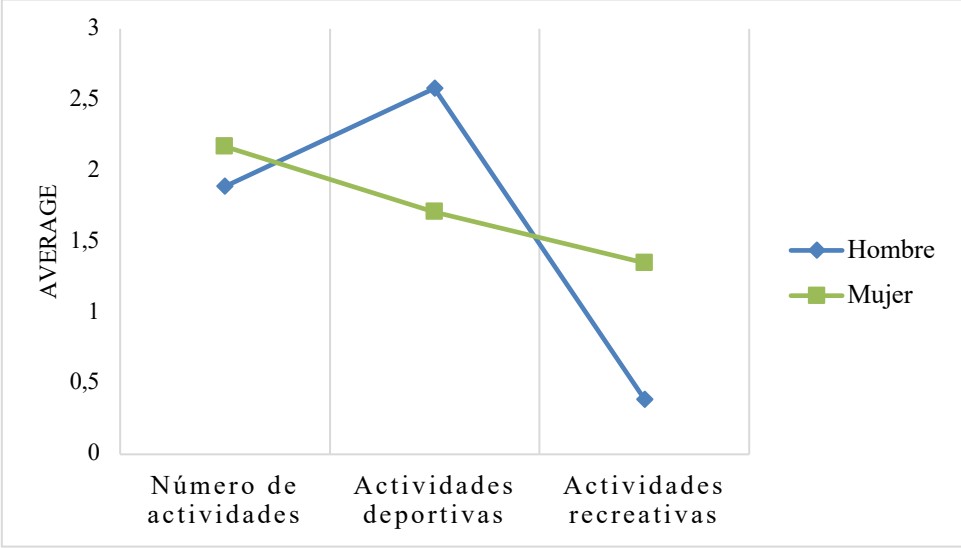

Figure 2. Different extracurricular activities mean depending on gender

Table 6 shows the results from the differential analysis based on gender, taking extracurricular activities carried out throughout the school week into account. There are significant differences regarding music classes attendance, sports, theater, and dance, which is the highest means from males in sports and females in music, theater, and dance.

Tabla 6

Mann-Whitney U test comparing extracurricular activities regarding gender

Extracurricular Activities	**Average Range**		**U**	**Z**	***p***
	Males (n = 329)	**Females** (n = 291)			
Academic support classes	265.81	253.25	31860.00	-1.276	.202
Language	256.74	263.79	32571.00	-.601	.548
Music	245.94	276.35	29556.00	-3.648	.000**
Art	259.13	261.01	33237.00	-.364	.716
Computing (ICT)	264.04	255.30	32352.00	-1.566	.117
Sports	292.17	222.60	24504.00	-5.418	.000**
Theatre	247.00	275.11	29852.50	-4.165	.000**
Dance	231.08	293.62	25411.50	-7.931	.000**
Others	253.32	267.76	31616.50	-1.592	.111

Note: *p<.05; **p<.001

Another differential analysis of extracurricular activities and academic performance is carried out regarding the type of school, resulting in significant difference between the time spent on sports-type activities, reaching a mean of (M = 2.42) in private school, which is higher than the (M = 1.65) of state schools. No significant differences were found regarding academic performance based on the type of school (Table 7).

Table 7
Mann-Whitney U test comparing the type of extracurricular activities and academic performance regarding the type of school

	U	Z	*p*
Number of extracurricular activities	28356.500	-.174	.862
Hours of xtracurricular activities	26306.500	-1.476	.140
Hours of cognitive/academic activities	26253.000	-1.536	.124
Hours of sports	22783.000	-3.810	.000**
Hours of recreational activities	27302.000	-.985	.325
Academic performance of Spanish	27583.500	-.668	.504
Academic performance of Mathematics	27138.500	-.953	.340
Academic performance of English	28292.000	-.211	.833
General Academic Performance:	27580.000	-.662	.508

Note: *p<.05; **p<.001

On the other hand, significant differences are found regarding the type of school in classes of Language, Computing (ICT), Sports and Theater, with the highest mean in Language and Theater in state schools, while Sports and Computing (ICT)) reach a higher mean in private schools (Table 8).

Table 8
Mann-Whitney U test comparing extracurricular activities regarding the type of school

Extracurricular Activities	**Average Range**		**U**	**Z**	***p***
	State Schools (n = 234)	**Private Schools** (n = 386)			
Academic support classes	263.70	258.37	28031.50	-.501	.616
Language	282.27	250.16	25079.00	-2.533	.011*
Music	258.15	260.82	28325.50	-.296	.767
Art	260.64	259.72	28519.00	-.164	.870
Computing (ICT)	243.50	267.29	25996.50	-3.940	.000**
Sports	223.29	276.21	22783.00	-3.810	.000**

Theatre	293.30	245.29	23325.00	-6.576	.000**
Dance	249.39	264.68	26933.50	-1.793	.073
Others	265.63	257.51	27725.00	-.827	.408

Note: *p<.05; **p<.001

Differential analysis of academic performance regarding the time spent on extracurricular activities

Three groups were formed to analyze the different means in academic performance regarding the time spent on extracurricular activities. According to the total of hours spent on extracurricular activities, a mean of (M = 5.51) was found and a standard deviation of (DT = 3.457) out of three groups between a minimum of 0 hours and a maximum of 20. The first group was defined from 0 hours to the mean minus half standard deviation (0; 3.7815) including 29.3% of the students. The second was formed by 45.7% of students, which scores were from the mean minus half standard deviation to the mean plus half standard deviation (3.7816; 7.2385), and the third group was made up of students with scores between the mean plus half standard deviation and the higher score in extracurricular hours (7.2386; 20) which corresponded to 25.0% of students.

Once the differential analysis was finished, the results from the Kruskal-Wallis H test for the study of academic performance in Spanish, Mathematics, English, and general academic performance indicates that there are no significant differences regarding the time spent on extracurricular activities (Table 9).

Table 9

Kruskal-Wallis H test for academic performance regarding the groups from extracurricular activities

Academic Performance	**Average Range**			χ^2	p	η_p^2
	Group 1 (n = 182)	Group 2 (n = 283)	Group 3 (n = 155)			
Spanish	244.63	260.58	276.91	3.351	.187	.006
Mathematics	253.26	260.88	266.28	.558	.757	.001
English	254.95	261.91	262.43	.251	.882	.000
General	248.10	262.65	269.08	1.513	.469	.002

Discussion and Conclusions

In the present study, the connection between extracurricular activities and academic performance has been analyzed considering gender and type of school to report some differences that may be significant around these variables. Regarding the performance of extracurricular activities, with students as our sample of the study, they perform an average of two activities per week, spending approximately five hours on them. Extracurricular activities were grouped into three categories depending on its purpose: academic/cognitive (among which

are academic support, reinforcement or language classes), sports, and recreational (including dance or theater among others). According to these categories, the results reported that students spend more time on academic/cognitive activities, although it is true that when analyzed the activities in the ad hoc questionnaire separately, most students take part in sports out of school hours.

The differential analysis regarding gender results following other studies where significant differences have been found in both the number and type of activities carried out, with males spending more time on sports and females on recreational activities (Alfonso-Benlliure and Huizar, 2013; Cladellas et al., 2011; Hermoso et al., 2010; Pros et al., 2015). According to this study, females carry out a greater number of activities in general compared to their peers. Also, students who take part in numerous sports activities participate less on recreational activities. It should be pointed out that attending extracurricular academic activities can be a sign of poor academic performance, given that most of the students attending support classes present learning difficulties or low grades.

Regarding the type of school, the most significant difference has been found in Sports activities, even if there are differences as well in extracurricular activities such as attending computing (ICT), where more students come from private schools; while those in state schools attend more language and theater classes. This is per previous studies that reported a bigger interest in reading and writing from students of state schools (Alfonso-Benlliure and Huizar, 2013).

Regarding the time spent on extracurricular activities, this study reports no significant differences between male and female students who attend extracurricular activities, which is not in accordance with the previously mentioned studies, which, without clear results, yet sometimes contradictory, even lacking officiality (Fashola, 2001) - report that when students take part in extracurricular activities, their academic performance improves (Duncan, 2000; Pros et al., 2015), especially when these are compatible and linked with those performed at school (Noam et al., 2003).

In addition, this study confirms that students with a lot of extracurricular activities obtain higher academic performance in Spanish, while those with a great number of recreational activities obtain lower grades in subjects such as English. Attending language classes is one of the variables included in extracurricular activities, therefore, it is expected for students to demonstrate its direct and close connection to academic performance in English, but this has not been verified.

Finally, we can point out that the greater the number of extracurricular activities, especially sports, the greater the academic performance, which notably improves, as previous studies report, El autoconcepto y la motivación hacia el aprendizaje escolar (Alfonso -Rosa, 2016; Booth et al., 2013; Bradley et al., 2013; Castelli et al., 2007; Esteban-Cornejo et al., 2014; González and Portolés, 2014; Martínez and Bernal, 2015; Paz-Navarro et al., 2009; Ramírez et al., 2004). It is particularly important to remark the connection and possible predictive factor of extracurricular music classes regarding performance in English, which is in accordance with previous studies that reveal a better academic performance when these types of activities are held, both in and outside the school campus (Jábega, 2008; Vílchez, 2009).

The incidence of other affective and motivational implicit variables should be taken into account regarding extracurricular activities, since a lot of practice of those can be associated, for example, with higher levels of stress or behavioral challenges (Cladellas et al., 2011). In the same way, social and cultural contexts, as well as economic level are determining factors to

take part in these activities. Therefore, conclusions of a connection between stress and academic performance are drawn.

Within the limitations of this study, it should be noted that the non-random methodological selection of the sample does not allow generalizing the results obtained from the students. Also, there are few studies on this topic that support the results reported. This study shows again how wide can the field of learning and academic performance be, leading this to different future lines of research, with variables such as contextual characteristics of the schools, where analyzing differences according to the location area (rural or urban) would be relevant, as well as the educational stage, social, economic, and cultural level of the families and their involvement on the education of their children. It would be relevant to consider a middle school in future studies since a cross-sectional study does not allow causal connections. it would be advisable to carry out quasi-experimental and longitudinal studies to check whether the differences remain over time.

The key may lie in the planning process of these activities as complement classes adapted to each student to solve their needs appropriately. Within every school, the role of teachers can be relevant in terms of advising families, especially those with elementary school students, helping them decide which and how many activities should their children take part in to avoid overloading them and prevent further personal problems.

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TRANSITION TO THE EMPLOYMENT OF PEOPLE WITH INTELLECTUAL DISABILITIES IN THE CANARY ISLANDS: SUPPORTED EMPLOYMENT

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Abstract. One of the challenges of modern societies is the access to ordinary employment of people with intellectual disabilities. In this article: 1) We will present the existing measures in the Canary Islands regarding educational attention to students with intellectual disabilities. 2) We will analyze the resources available and the processes of transit to employment from the education system and from the entities linked to employment. 3) We will examine the role of special employment centers and occupational centers. 4) We will analyze the characteristics of the Supported Employment model for access to ordinary employment of people with significant disabilities. This model, created in the United States in the 70s, has demonstrated its effectiveness for the labor inclusion of people with significant disabilities. 5) We will describe the situation of the Employment with Support model in the Canary Islands, highlighting some good practice projects. The employment of people with intellectual disabilities in the Canary Islands remains an anecdotal fact, despite the available resources and the trajectory of different specialized entities. It is necessary to document experiences, encourage research, take care of the process of transition to adult life, match economic investment in employability resources of a protected nature with those of ordinary character. Finally, it is necessary to inform and raise awareness about the ability people with disabilitiesto contribute to the creation of more profitable and sustainable companies.

Keywords: Intellectual disability, educational attention, access to employment, supported employment.

TRANSICIÓN AL EMPLEO DE PERSONAS CON DISCAPACIDAD INTELECTUAL EN CANARIAS: EL EMPLEO CON APOYO

Resumen. Uno de los desafíos de las sociedades modernas es el acceso al empleo ordinario de las personas con discapacidad intelectual. En este artículo: 1) Abordaremos las medidas existentes en Canarias en materia de atención educativa a los alumnos con discapacidad intelectual. 2) Analizaremos los recursos disponibles y los procesos de tránsito al empleo desde el sistema educativo y desde las entidades vinculadas a empleo. 3) Examinaremos el papel de los centros especiales de empleo y los centros ocupacionales, destacando los aspectos que allanan el camino hacia el empleo ordinario. 4) Analizaremos las características del modelo de Empleo con Apoyo para el acceso al empleo ordinario de personas con discapacidades significativas; este modelo, surgido en Estados Unidos en la década de los 70, ha demostrado su eficacia para la inclusión laboral de personas con discapacidades significativas. 5) Describiremos la situación del modelo de Empleo con Apoyo en Canarias, destacando algunos proyectos de buenas prácticas. El empleo de las personas con discapacidad intelectual en Canarias continúa siendo un hecho anecdóticoa pesar de los recursos disponibles y de la trayectoria de distintas entidades especializadas. Es necesariodocumentar experiencias, fomentar la investigación, cuidar el proceso de tránsito a la vida adulta, igualar la inversión económica en los recursos de empleabilidad de carácter protegido con los de carácter ordinario. Finalmente, es necesario informar y crear conciencia sobre la capacidad de las personas con discapacidad para contribuir a la creación de empresas más rentables y sostenibles.

Palabras clave: Discapacidad intelectual, atención educativa, acceso al empleo, empleo con apoyo.

Introduction

One of the great political challenges of welfare states is access to employment and adult life for people with intellectual disabilities; this challenge must be faced with original solutions and bearing in mind the characteristics of the group that is going to be integrated into society, which is often subject to social exclusion (Santana, 2013; 2015; Santana, Feliciano y Jiménez, 2016; Santana, González y Feliciano, 2016; Bello, Santana y Feliciano, 2020; Garcés, Santana y Feliciano, 2020). In the case of young people with intellectual disabilities, the challenge is particularly significant since it involves overcoming stereotypes and preconceived ideas regarding their abilities. It also requires innovative and active work methodologies (Santana y del Castillo, 2016); using those methodologies will allow the professionals who work with this group to be able to attend to diversity and give an educational response adjusted to their needs.

Despite the guidelines imposed on equality of opportunity and non-discrimination at the national and international levels, access to employment for individuals with intellectual disabilities is a low-profile reality that reaches only a few. However, in practice, there is a range of opportunities to make it happen.

The employment of people with intellectual disabilities in the Canary Islands is seen and felt differently by the parties involved. The Canary Archipelago consists of eight islands: Lanzarote, Fuerteventura, La Graciosa, Gran Canaria, Tenerife, La Palma, La Gomera, and El Hierro. They constitute the Autonomous Community of the Canary Islands within the Spanish State.

The entities involved in our region in labor inclusion of people with disabilities perceive it as a great challenge for which means and knowledge are needed; families see it as an unattainable dream since there is a lack of material and human resources that can meet their demands for specific programs to improve the quality of life of their family member with a disability; most employers conceive it as a threat rather than as an opportunity to discover different talents and skills that add value to their companies; society looks at it with tenderness and as something merely anecdotal; politicians seem to pay more attention to the voices that demand places in care centers and the promotion of protected environments, pacing programs that promote inclusion in the community in another order of priorities; finally, it is difficult to know what people with intellectual disabilities think since it is not usual to ask for their opinion. This reality can be extended to many other severe disabilities included within the term "functional diversity", such as autism spectrum disorder, cerebral palsy, brain damage, etc. These circumstances encourage many discussions that promote decision making in the field of social and labor inclusion of people with intellectual disabilities.

This paper describes the existing milestones in the Canary Islands regarding the transition to the employment of people with intellectual disabilities, starting from the educational system, and analyzing the transition opportunities offered by institutions with competencies in the field of employment, as well as from the assistance resources. This paper also briefly reviews the current situation of supported employment programs focusing on the labor market inclusion of people with intellectual disabilities.

Educational attention to diversity in the Canary Islands: Current situation

According to recent research, the European Agency for Special Needs with Inclusive Education (2018) shows that:

- Inclusive education is one of the factors that increase the employment of people with disabilities.
- The nature of the curriculum may increase or limit employment opportunities for people with disabilities.
- High-quality transition programs in secondary education can increase the likelihood that people with disabilities will be hired.
- Educational inclusion can influence the type of employment that is achieved (supported employment, open employment, and self-employment)

Canarian legislation on education recognizes the right of all persons to an education on equal terms, which promotes the success and excellence of all students in a common learning environment where they live together in diversity. Of course, the Canarian legislation on diversity is in line with national and international legislation on this subject (LOMCE, European Disability Strategy 2010-2020, Convention on the Rights of Persons with Disabilities).

The Canarian Education Law 6/2014 of 25 July establishes that the guiding principles of the Canarian educational system are: pedagogical attention to each student, equal opportunities, social participation, and efficiency in all schools to meet the educational needs of the students and to achieve the best learning results. Likewise, Article 4 states that "the education system of the Canary Islands will be configured as an inclusive system, aimed at guaranteeing each person the appropriate attention to reach the maximum level of his or her abilities and competences". This Law defines attention to diversity as "the set of educational actions aimed at promoting the educational progress of students, taking into account their different abilities, rhythms and style of learning,

motivations, and interests, as well as their social, economic, cultural, linguistic and health situations."

Article 4 of Decree 25/2018 of February 26, which regulates attention to diversity in the area of non-university education in the autonomous community of the Canary Islands, establishes the following as measures to address diversity: (a) Ordinary measures to promote the development of skills corresponding to the objectives of each stage, through modifications in the educational context. b) Extraordinary measures referring to adaptations in the curriculum. c) When the previous measures are not considered sufficient, exceptional measures may be established which may include formula of mixed schoolings, such as schooling in ordinary centers of special educational attention, in enclave classrooms, or any other proposed program. Schooling in special education centers shall be carried out when there are reasons that justify the impossibility of schooling in ordinary centers.

Transition to the employment of students with disabilities

Enclave classrooms are schooling units located in ordinary educational centers. They meet the special educational needs of students who require adaptations. There are enclave classrooms in the nursery and primary schools, where students are between 3 and 14 years old, as well as in secondary schools, with students between 14 and 21.

The adapted curricular specifications (Order of February 10, 2016) meet the different educational needs of students in the enclave classroom and special education centers. These curricular specifications provide guidance and support to professionals who must, in turn, carry out the necessary adaptations to ensure that the subjects included in the specifications are suited to the characteristics and needs of the students.

The Curriculum Specification for the Transition to Adult Life is the one proposed for the students of enclave classrooms that are in secondary schools and special education centers. It is arranged and organized around four spheres: Personal autonomy, social autonomy, communication and representation, and work environment. The latter aims to prepare students for their future incorporation into the world of work, contributing to their professional training and discovering job possibilities and expectations following the personal and professional profile of the students.

Royal Decree 127/2014 of February 28, which regulates specific aspects of basic vocational training, establishes the implementation of vocational training programs for students with specific educational needs. Educational administrations may offer vocational training adapted to the needs of students. These programs are aimed at the acquisition of a level 1 professional qualification and the achievement of the necessary skills to facilitate their insertion in the labor market. They are aimed at students with special educational needs who have a certain level of personal and social autonomy that will allow them to get a job. They must be between the ages of 16 and 19. Currently, the adapted professional training programs offered in the Canary Islands are:

- Auxiliary activities in greenhouses, gardens, and garden centers.
- Auxiliary activities on general administrative services.
- Data and document recording activities.
- Shoes and leather goods repairs

Outside the educational sphere, the integrated itineraries for labor market insertion projects, financed by the European Social Fund and managed by the Canarian Employment Service, are aimed at the social and professional training of groups that are difficult to integrate, including people with disabilities. The goal of these programs is to improve their competitiveness and to support them to obtain the necessary knowledge and skills to improve their employability. Subsidies for the completion of these itineraries go to non-profit foundations and associations (Canarian Employment Service).

Regarding professional certificates, the regulations that govern them establish that the competent public administrations may carry out training offers adapted to the specific needs of young people who have failed at school, people with disabilities, ethnic minorities, the long-term unemployed, women who are victims of gender violence and, in general, people at risk of social exclusion. These offers may include appropriate modules that can be adapted to the specific needs of the beneficiary group (Canarian Employment Service).

Level 1 vocational certification does not require a compulsory secondary education diploma. They consider the completion of internships in companies that contribute to make visible the abilities of people with intellectual disabilities and add value to the curriculum.

Several studies carried out in Spain have deepened the processes of transition from school to employment, focusing on the views of professionals, families and young people with intellectual disabilities themselves (Pallisera, Fullana, Martín and Vila, 2013; Pallisera, Vilá and Fullana 2014; Fullana, Pallisera, Martín, Ferrer and Puyaltó, 2015). Although there are no studies on this subject in the Canary Islands, the experience of one of the authors of this paper, who has been working for more than twenty years in the field of the transition of young people from the educational system to employment, coincides with the result of many of these investigations: the need to work on the curriculum, to promote real work experience and to establish continuity in the orientation processes through the different phases of the educational process, particularly at the end of secondary education (Pallisera, Vila, Fullana, Castro, Puyaltó and DiazGayolera, 2018).

Young people and their families lack information about the training and/or employment alternatives that exist after they leave school (Beyer and Kaehne, 2008). There is also a clear gap between school and after-school services (Pallisera, Vilá, Fullana, Martín, and Puyaltó, 2014). There is no systematic work on the transition process during their time in secondary school and labor inclusion is not seen as a priority during this period (Vilá, Pallisera, and Fullana, 2010). Therefore, the scenario is that of a high number of young people who have finished their schooling without any career plan, disoriented and without information about their social and labor options (Pallisera, Fullana, Martín, and Vilá, 2013).

Role of Occupational Centers and Special Employment Centers in the transition to the labor market

Royal Decree 1/2013 of November 29 defines occupational centers as a resource whose purpose is "to ensure occupational therapy and personal and social adjustment services to persons with disabilities to achieve their maximum personal development and, where possible, facilitate their training and preparation for access to employment."

In principle, occupational centers do not have a final character to the extent that the Law places them at the level of preparation and training for employment. However, the objective of employment does not seem to be present in them (Gómez Amago 2018).

The document under the title "Transition from Occupational Centers to Special Employment Centers (FSC Inserta and Fundación Once, 2014)" shows that only 58% of occupational centers indicate that employment is part of the content of the strategic or action plan of their organization, and the percentage decreases to 45% among those who establish objectives for the transition to employment. On the other hand, in these centers, people with intellectual disabilities receive training in skills and abilities of various kinds but non-inclusive environments, since all students have some kind of disability. These alternatives do not seem to be consistent with the trajectory of inclusion developed during the school stage (Pallisera Vilá, Fullana, Martín, and Puyaltó, 2014, Fullana, 2015).

The management of occupational centers has been transferred to the autonomous communities. This is the reason why the occupational center model acquires different characteristics. So, there is a model more oriented to employment, in the Basque Country and Navarre, and another one more assistance-oriented in the rest of the autonomous communities except Catalonia, which is between both of them. Over the last years, it has been evident how the assistance model is trying to raise new horizons (FSC Inserta and Fundación Once, 2014).

In the Canary Islands, it is the Island Councils that have the powers transferred to create and maintain occupational centers, by virtue of Decree 113/2002 of August 9 on the transfer of functions to the Public Administration of the autonomous community of the Canary Islands to the Island Councils.

As in other autonomous communities, in the Canary Islands, there is an interest in opening new horizons in occupational centers, projecting them towards the promotion of independent life and employment of their users. Along these lines, the Adepsi Association (Las Palmas de Gran Canaria) is committed to a "new model of occupation" for people with intellectual disabilities. This new model advocates for flexible resources that are tailored to the needs of each individual and provide security for them and their families. The goal is to overcome the airtight divisions in occupational centers that cause people to refuse a job for fear of losing their place in the occupational center (Adepsi Association, 2017).

According to the Law 1/2013, special employment centers are those whose main objective is to carry out a productive activity of goods and services, participating regularly in market operations. They are intended to ensure paid employment for people with disabilities, while at the same time being a means of including the highest possible number of these individuals in the ordinary employment regime. In the same way, special employment centers shall provide, through the support units, the personal and social adjustment services requires by the workers with disabilities, according to their circumstances and in accordance with the regulations.

The staff of special employment centers must be made up of at least 70% of people with disabilities. They consider the existence of "support units" whose aim is to provide "personal adjustment" services. They can be created by both public and private bodies. The Ministerial Decree of 16th October 1998 establishes aid for special employment centers aimed at managing jobs, technical assistance, social security allowances, minimum inter-professional wage subsidies, job adaptation, a support unit, etc.

Special employment centers have grown as a result of a policy that has given priority to segregated alternatives over inclusive ones (Jordán de Urríes, 2010), to the extent that there is a higher level of recruitment in special employment centers than in ordinary employment (Díaz Jiménez, 2016).

Although initially special employment centers were created to promote the transition of workers to ordinary employment, this does not happen and in reality, it is not easy to carry out this transition (Díaz Velázquez, 2016).

On the other hand, the group of workers with mild disabilities is displacing that of people with severe disabilities in special employment centers, so the latter are less and less represented (García and Salcedo, 2015).

In the Canary Islands, the Public Administration responsible for special employment centers is the Canary Islands Employment Service. The Canary Islands currently have a total of 58 special employment centers carrying out different activities in the service sector and distributed throughout the different islands of the archipelago, except on the island of El Hierro.

The supported employment model for the employment inclusion of people with intellectual disabilities

The methodology of supported employment is based on the implementation of the assistance that people with disabilities need to get and keep a job in ordinary environments. It was created in the 1970s as an alternative to traditional welfare resources and day programs. It's a way to help those people with disabilities who are not able to get and keep a job on their own (Wehman, 2012). This program is based on an individualized support system, consisting of the provision of the essential help so that the person can carry out a work activity at a certain moment of his/her vital trajectory by himself/herself (Spanish Association of Supported Employment, 2008).

Supported employment is one of the most successful strategies for the employment of people with significant disabilities. It is also one of the most complex and necessary commitments to promote personal development, and the real social integration of people with disabilities (Becerra, Montanero, and Lucero, 2011). It is a model in accordance with current legislation on labor insertion and is a practice of Corporate Social Responsibility (White, 2015). In terms of cost-benefit, research shows that it is more socially and economically advantageous than the special employment center (Jordán de Urríes, de León, Hidalgo, Martínez, and Santamaría, 2014).

Several definitions of supported employment are very similar to each other and only differ in nuances. We will follow the one established in the General Law of Rights of People with Disabilities of 2013: The supported employment services are the set of actions of guidance and individualized accompaniment in the workplace for the social and labor adaptation of disabled workers with special difficulties of labor inclusion in companies of the ordinary labor market under similar conditions to the rest of the workers who hold equivalent positions.

To unify the practice of supported employment, a group of experts from all over Europe, linked to the EUSE (European Union of Supported Employment), created the "Supported Employment Toolkit" in the framework of the Leonardo Project (2008); its use has spread throughout Europe. The implementation of the methodology by other groups raised the need to deepen the development of the Toolkit so that, within the framework of a new Leonardo project (2012-2014), the "EUSE Diversity Toolkit" was created whose target group is extended to young people at risk of social exclusion, ex-drug addicts and ex-prisoners (EUSE, 2015).

Supported employment is developed in the following phases (EUSE, 2015):

1. Customer commitment: Many potential users of supported employment services are day center users, who receive support from care or mental health resources. Entities that promote supported employment try to encourage these people to explore employment as a way to improve their quality of life.

2. Profile definition: This is the process by which users' aspirations, learning needs, individual skills, past experiences, and job preferences are identified. Family members and other professionals who provide support to users are involved in its development.

3. Employers' commitment: The third crucial element is the marketing process with entrepreneurs. It aims to help them overcome their barriers and prejudices in terms of employment inclusion of people with disabilities. Experts contact employers to search for job offers or identify job opportunities that are suitable for people with intellectual disabilities.

4. Workplace adjustments: Once the employer's commitment is secured, a job analysis is conducted. This analysis checks everything in the formal description of the analysis and thoroughly examines several issues, including health and safety. This analysis can lead to a reconfiguration of the job, so that it fits the profile of the workers, or to the creation of new jobs that fit their characteristics and are profitable for the employer.

5. Support at work and outside work: Support or training at the workplace is individualized and provided when necessary to ensure adequate performance and good use of resources. Such support is usually provided by a job coach. This support is not only aimed at achieving adequate levels of performance, but also at improving their social integration, so it can be given at work and outside of it. Support, both at and outside work, is provided according to the needs of the worker with disabilities. It goes beyond the worker themself since it is also provided to co-workers so that they take on the role of natural supports. The role of natural supports is of vital importance since they teach and help the worker throughout the process and assume a relevant role, particularly when the job coach begins to retire.

6. Career development: The supported employment model will encourage the development of the employees' careers, promoting training opportunities, and the acquisition of greater responsibilities within the company.

Supported employment in the Canary Islands

Supported employment began in Spain in the late 1980s with the Aura project in Barcelona, directed by Gloria Canals and Montserrat Domenech. The celebration of the I Symposium of Supported Employment in Mallorca in 1991 was a milestone for its implementation and diffusion in Spain.

Supported employment in the Canary Islands is currently developed by different entities specialized in the field of labor integration of people with disabilities.

Sinpromi: Insular Society to Promote People with Disabilities (Tenerife)

Supported employment arrived in the Canary Islands in 1994 thanks to the Island Council of Tenerife. The origins of the supported employment program are related to the Council's concern to promote access to regular employment for people who have traditionally been users of occupational centers. This concern gave rise to the development project of supported employment by the Council, whose goal was the labor inclusion of a group of people with intellectual disabilities (some of the users of occupational centers) in companies of the tourism sector. The success of this first experience led this entity to institutionalize the supported employment program. Later, it was entrusted to Sinpromi, a public institution owned by the Council, created in 1993 to promote the social and labor integration of people with disabilities (Sinpromi, 2018). The program was upgraded from a pilot project to a permanent service with a permanent staff of job coaches and employment technicians.

Since it began, Sinpromi has promoted access to employment for over 700 people with intellectual disabilities, as well as several local and European projects. These projects have aimed to spread the methodology of supported employment, as well as to make society and companies aware of the need to highlight the values of inclusion, solidarity, and respect for diversity as strategic management elements that increase their value.

People with intellectual disabilities officially recognized who want to get a job, go to Simpromi's supported employment service, which helps them design their professional profile based on their expectations, abilities and the demands of the labor market. An intensive search for jobs is then carried out based on this profile. Although this search is carried out by the service technicians, the users and their families are also encouraged to look for jobs.

Once a job position arises, it is analyzed to obtain detailed information about its demands. The purpose of this analysis is to determine the profiles that fit the job. These users are interviewed by the employer, who decides who will be the final candidate, with the advice of the job coach if required. The selected candidate starts the job together with the job coach, who shows him/her the tasks of the job, as well as supporting him/her in the process of adaptation to the social and labor environment, staying with the worker as long as necessary until guaranteeing an adequate performance of the job. During this training period, the worker detects among the employees' possible natural supports that will intervene in the process from the beginning and that will assume, as far as possible, the role of the job coach when the latter has already left. The job coach will carry out a follow-up throughout the user's working life, intervening whenever the user or the company requires it.

Adislan (Lanzarote)

This non-profit organization was created in 1969 to assist people with intellectual disabilities and their families. In 2009 it began to manage projects for social and labor integration. The ultimate goal of the labor integration service for people with intellectual disabilities is the social and labor integration of people with intellectual disabilities on the island of Lanzarote in special employment centers or ordinary companies, depending on their support needs. Its services are:

- Designing personalized training and socio-personal adjustment plans
- Information on employment and training offers
- Information, guidance, and advice on aids for people with disabilities and work compatibility (employment and benefits)
- Training for active job search and job skills

- Assistance in the incorporation into the labor market
- Support once the employment relationship begins
- Information and guidance for families
- The services offered to companies are:
- Information and advice on current regulations on employment and disability.
- Taking up job offers
- Analysis and evaluation of jobs
- Pre-selection of candidates
- Follow-up of the incorporation into the labor market
- Training and awareness actions aimed at entrepreneurs

Adislan is integrated within the Spanish Association of Supported Employment and applies the model following its phases and principles.

Down Las Palmas (Gran Canaria)

It is a non-profit organization that was created in 1987 by a group of relatives of people with Down's syndrome. It aims to "promote the development, normalization, and full integration of this people" Down Las Palmas, 2019). They carry out their social work through several work programs that cover the entire life cycle of people with Down's syndrome. Among them is the supported employment program. This association carries out collaboration agreements with companies both for internships and for employment. Therefore, the supported employment methodology is carried out in two fields:

1. Internship students: These are young people who need more training and maturity to get a job, or who have not managed to get a job; they need to train and continue learning, expand new content and learn other professional profiles to broaden their curriculum.

2. Recruitment: Young people who get a paid job that fits their profile.

The two areas of action have the same support and monitoring, with emphasis on the natural support provided by the company's staff. Such support begins by being intensive, extending to almost the entire working day, and gradually decreases without disappearing since contact is always maintained with companies, families, and the young people themselves. The entity's staff provides training to companies before the incorporation of young people.

Adepsi (Gran Canaria)

The ADEPSI association is a non-profit organization whose goal is "the social and labor inclusion of people with disabilities and their families by promoting improvements in their quality of life" (Adepsi association, 2017). This organization: 1) evaluates the profiles, skills, and knowledge of people with disabilities to promote their incorporation into employment; 2) offers training tailored to the needs of companies by providing several professional certificates, as well as training cross-curricular training; 3) provides personalized service to companies for the recruitment of people with disabilities that consists of social and employment counseling (legislation, grants, and subsidies for recruitment, alternative employment measures...), advice on corporate social responsibility, job center, and monitoring, and support in the process of incorporation into the job.

The implementation of the supported employment methodology is based on actions of professional assistance, guidance, labor intermediation, and training in

competences for employment, so that the process of searching for, incorporating into, and maintaining a job has greater guarantees.

The ASEPSI association is committed to the employment and occupation model proposed by AEDIS (Business Association for Disability). This model is in line with both the Convention on the Rights of Persons with Disabilities and the Spanish Constitution, as well as with the guiding principles of the Full Inclusion associative movement, focused on the life journey of the person with a disability and on adapting the environment to the person and not the person to the model (Adepsi association, 2017).

Conclusions

This overview of the situation of the transition to employment and the employment of people with intellectual disabilities leads us to the following considerations:

1) In the Canary Islands, there is barely any data regarding the labor inclusion of people with intellectual disabilities in ordinary jobs. The Canary Islands employment monitoring center (OBECAN) has data regarding the employment of people with disabilities, broken down by types among which intellectual and developmental disabilities are not included (Government of the Canary Islands, n.d.). There is information and data on job seekers in occupational centers and care homes; however, it is not possible to obtain data on people with intellectual disabilities who are job seekers, who might be working or who are currently working.

2) As in many other territories, the predominant image of people with disabilities is that of a recipient of pensions or any kind of assistance, with low potential for job performance and a high level of unemployment (Mank, 2008). This is especially prominent when referring to people with intellectual disabilities and special support needs, who are mostly considered "too disabled to work" (Cimera, Burges, Novak and Avellone, 2014). Employment expectations need to be promoted and reinforced within the family itself from an early age. There is no point in raising the awareness of institutions and society, in general, to promote active policies and employment opportunities if the family does not encourage the development of life projects in which employment holds a central place.

3) It is essential to protect the transition period to adult life and employment of people with intellectual disabilities. This requires the training of professionals and working on their attitudes towards students with disabilities so that both professionals and people with intellectual disabilities appreciate the value of their "different abilities", and their contribution to the social and economic growth of their environment.

4) It is necessary to reinforce the training offer by adapting it to the characteristics of people with intellectual disabilities both in the school environment and after school. This way, people with disabilities will be free to choose what they like rather than what is available. Moreover, it is necessary to adapt the offer to the demands of the labor market, otherwise, it is a waste of time and resources and a source of frustration for the people themselves.

5) It is necessary to carry out transition plans from an early age, regardless of the severity of the disability. These plans must involve education professionals, entities

working on labor inclusion, the families, and the people with intellectual disabilities; these plans must be developed beyond the school period.

6) There needs to be a reinforcement of the evolution that some occupational centers in the Canary Islands are undergoing from assistance to training and employment. This way, these centers will be able to prepare users for their labor inclusion and will be located within the employability resources map. The transition role of special employment centers to ordinary employment is important. They should provide a place for people with disabilities and greater support needs. It is also necessary to match the economic investment in special employment centers with that made in programs for access to ordinary employment. It is important to remember that the ultimate goal established by the United Nations' Convention on the Rights of Persons with Disabilities is access to employment under equal conditions.

7) Entering a supported employment program is an ideal alternative. The problem is the lack of programs and personnel (Fullana, 2015). In the Canary Islands, and more specifically on the island of Tenerife, Sinpromi is the only organization that has consolidated a program of these characteristics. Something similar happens in other islands and in some, it has not yet been implemented. The competent entities in the field of employment must promote a program of subsidies, monitoring, and supervision that stimulates the development of the supported employment programs to reach the greatest number of beneficiaries.

8) It is important to document the programs, as well as to collect and systematize as much data as possible to promote research in this field, aimed at increasing knowledge in this area, as well as optimizing decision-making processes both the technical and political levels.

The thoughts presented in this paper allow us to devise future lines of research related to the subject of supported employment. For example, empirical studies could be carried out on how this model of professional performance affects access to employment for people with intellectual disabilities; research of a quantitative and qualitative nature could also be designed to analyze the effectiveness of the model for optimum management of diversity in the company workforce.

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DRAWINGS OF ELEMENTARY SCHOOL STUDENTS REVEALING FEELINGS AND EMOTIONS: AN ISSUE DISCUSSED BY EMOTIONAL INTELLIGENCE

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Abstract: Psychopedagogical processes study where was analyzed the school learning, related to emotional intelligence concepts in primary students through the evaluation of their drawings. Emotions are associated with significant events, which determine the individual's reactions based on the events that occurred. Therefore, the drawings are the basis for the intellectual and socio-cultural development of the individual as well as the expressing and developing skills. When different types of colors are used, it is a manner of expressing feelings at the time of action and be able to apply to children, youth, and adults. Its use drives the integral development of the person, allowing learning to deal with emotions, life, and personal development processes. Objective: To identify through drawings, feelings, and emotions related to the learning process of primary education. Methods: Bibliographic search and experimental design were carried out, where the drawings that showed acceptable oral communication were analyzed. Exclusion criteria: Children who not belong to the selected schools, suffer any mental or psychic problems that obstruct oral communication. Result: The analysis of the drawings will enable understanding situations experienced by students inside and outside the school, like their fears, anguish, and anger. Furthermore, these could reveal other remarkable emotions for the teaching-learning process.

Keywords: Emotions, Feelings, Emotional Intelligence, Elementary Education.

EL DIBUJO DE ALUMNOS DE PRIMARIA REVELANDO SENTIMIENTOS Y EMOCIONES: UNA CUESTIÓN DISCUTIDA POR LA INTELIGENCIA EMOCIONAL

Resumen. Estudio de los procesos psicopedagógicos que involucran el aprendizaje escolar utilizando los dibujos producidos por alumnos de enseñanza primaria, relacionados con conceptos de inteligencia emocional. Las emociones se asocian a acontecimientos significativos, determinan las (re)acciones del individuo ante los eventos por él vividos. Por lo tanto, los dibujos constituyen desa forma, la base para el desarrollo intelectual y sociocultural del individuo ademas de reflejar y desarrollar habilidades. Cuando se dibuja con colores identifica los sentimientos en el momento de la acción y puede ser aplicado a niños, jóvenes y adultos. Su uso impulsa el desenvolvimiento integral de la persona, permitiendole aprender a lidiar con las emociones, la vida y los procesos del desarrollo personal. Objetivo: identificar a través de dibujos, sentimientos y emociones relacionadas con el proceso de aprendizaje del alumno de enseñanza primaria. Metodología: investigación bibliográfica y de campo, donde se analizaron los dibujos que presentase buena comunicación oral. Criterios de exclusión: no ser alumno de las escuelas seleccionadas, presentar problemas mentales que contaminase la investigación, y portadores de problemas psíquicos que imposibiliten la comunicación oral. Resultado: Se considera importante el análisis de los dibujos en niños de edad escolar, con el fin de entender situaciones vividas por los alumnos dentro y fuera de la escuela, sus miedos, sus angustias y rabia, además de todo tipo de emoción que pueda interferir en el proceso de enseñanza aprendizaje.

Palabras clave: Emociones, Sentimientos, Inteligencia emocional, Enseñanza primaria.

Introduction

Historical-Critical Pedagogy seeks to develop a critical sense using the knowledge produced historically by humankind. Its aim is a way of teaching based on historical, cultural, and social explanations, understanding that Education is a process built collectively Sarandi (2010).

According to Teixeira (2003, p. 180), historical-critical pedagogy tries to understand education through the context of society, its organization, and its forms that transform society, taking as a starting point the social practices reaching the teaching process. Likewise, in this pedagogy, the student can interfere in reality by transforming it, so that, teaching can collaborate for individual and social development. And the fact of being able to intervene in reality allows them to immerse themselves in working with emotions

Emotions are identified by the individual from a young age. Moreover, from the moment he acquires verbal language, the child can name his own emotions and feelings and of others. For Cardeira, (2012, p. 3), many activities can help in the ability to identify them among each other: children's stories, pretend games, drawings, among others. This makes it possible for the child to generalize the emotions felt through games to other similar situations.

The individual and his emotions are intimately related to the environment in which it lives, according to Cardeira, (2012, p.2). The family and social experiences produce interaction of the individuals with the environment and their emotions. Socialization is a matter shared by the school and the family. In this way, the school needs to be focused on the community and successfully articulate the development and formation of the individual.

Emotions are associated with significant events that determine the individual's reactions to certain situations. These reactions may be appropriate or inappropriate depending on the way he deals with the problem. They can be observed through facial expressions, tone of voice, nervous and endocrine systems that respond through body activities to what the individual is feeling internally (Carocho, 2017, p. 5).

Mayer (2004, p. 4-5; Mayer, Salovery & Caruso (2004, p. 197), write about EI as an ability to represent reactions to certain situations, according to the authors,

> We define EI as the capacity to reason about emotions, and of emotions to enhance thinking. It includes the abilities to accurately perceive emotions, to access and generate emotions to assist thought, to understand emotions and emotional knowledge, and to reflectively regulate emotions to promote emotions and intellectual growth.

And continues,

> Emotional intelligence refers to an ability to recognize the meanings of emotion and their relationships, and to reason and problem-solve based on them. Emotional intelligence is involved in the capacity to perceive emotions and manage them.

Therefore, it can be said that emotions are part of human learning and are linked to the capacity of the individual to optimize his intelligence and develop important mechanisms for life. That is to say that they are instruments for the improvement of human intelligence. This creates the theory of emotional intelligence, which generates the so-called emotional education, where the individual learns to control emotions for his well-being (Wedderhoff, n/d, p. 2).

The term Emotional Education is subjected to the idea of making the person more spiritualized, patient, and resigned. Alves, Barbosa, and Siqueira (1999) maintain that emotional intelligence is what moves the individual to have attitudes and decisions that better guide his life in its various pillars.

In the nineties, the researchers Salovey and Mayer (1990) published an article triggering interest in the study of human intelligence, trying to understand the role of emotional intelligence in the development of the individual's well-being. According to Cejudo and López-Delgado (2017), in three decades of scientific life, Emotional Intelligence has gone from being a fashionable concept to becoming an exciting and profitable field of research (Cejudo and López-Delgado, 2017).

Chan (2003), in the study of human intelligence, focused mainly on the attention of cognitive capacity and its use. As a result, several scholars have paid attention to emotional intelligence, especially in the area of the individual's ability to recognize, express, and manage his emotions (Coiser and Picard, 1997). For Eccles and Roeser (2000), emotional imbalance has a strong influence on the learning process. Other authors as Cherniss (2010) states that EI is based on three key concepts. First, emotions are an important part of life. Secondly, how people perceive and handle emotions. And finally,

how emotions contribute to the overall confrontation and well-being in all areas of life (Cherniss, 2010).

Scholars such as (Mayer and Salovey, 1997; Goleman, 1998), attribute to emotional intelligence the individual's ability to recognize and assess one's own and others' feelings, as well as the ability to deal with them.

Salovey and Mayer (1997, p.10) conceptualized emotional intelligence as "...the ability to perceive and express emotion, assimilate it to thought, understand and reason with it, and learn how to regulate it in oneself and others".

Goleman, a great contemporary scholar of emotional intelligence, understands that emotion "refers to a feeling and its different thoughts, psychological and biological states, and a range of tendencies to act" (Goleman 2012, p. 303). According to him, there are hundreds of emotions, along with their combinations, variations, mutations, and nuances. Emotions have the function of adapting to the environment, motivating behavior, helping to perceive what is happening by providing inter and intrapersonal information, fostering decision-making, and facilitating interpersonal relationships (Fernández-Berrocal perturbation and Ramos, 2004). Bisquerra (2000) conceptualizes emotions as "a complex state of the organism characterized by excitement or predisposition to action" (Bisquerra, 2000). Emotions can be pleasant or unpleasant, but they are a way of seeing that we are alive and in contact with our surroundings (Galindo, 2003). The same author defined emotional intelligence as: "the ability to identify our feelings and those of others, to motivate ourselves and to manage emotions well within ourselves and in our relationships" (Goleman, 1998, p. 337). He also affirms that:

IQ and emotional intelligence are not opposing capacities, but different ones. All of us mix intellectual and emotional acuity; people with high IQ and low emotional intelligence (or low IQ and high emotional intelligence) are, despite stereotypes, relatively rare. (Goleman 2012, p. 68).

During childhood, emotion is distinguished from cognition, gradually incorporating the higher mental functions of human learning in the performance of behavioral, emotional, and affective responses (Fonseca, 2016). The development of emotional intelligence makes to learn about emotions. It is a learning process, so the emotion has the function of facilitating the act of thinking by generating thoughts from planning (Wedderhoff, n/d, p. 4).

On the other hand, the cognitive theory developed by Piaget addresses the following cognitive processes: perception, thought, language, and, above all, intelligence. It defines cognition as "the state of balance in the sense that all successive adaptations of sensorial, motor and cognitive order, as well as all assimilative and accommodative exchanges between the organism and the environment, tend to take place" (Piaget, 1983, p.21).

From the psychological point of view, emotions can be natural and physiological, pleasant or unpleasant. They can modify behavior and interfere with the proper quality of the individual. Emotions related to the well-being of the individual are considered positive and can become a constant search of the individual. While negative emotions, those that cause constriction are avoided by individuals (Roble Arruda, 2014, p. 27).

Studies reveal that the basic emotions, mainly the negative ones, have been the object of research by many scientists. Like that, the basic emotion is defined as innate and as a way of the individual to adapt to certain situations and as to protect himself.

Furthermore, they are socially created according to culture rules and patterns. (Carvalho Arruda, 2014, p. 28).

Regarding the emotions, we can distinguish four types: The basic emotions are four: joy, fear, sadness, and anger, which are defined as, according to Roble Arruda (2014, p. 29-36):

- Joy: is activated by favorable events, which affect the individual both directly and indirectly. Joy is an emotion that is activated whenever there is a positive change of situation. That is to say, from a neutral or negative situation to a positive one. The characteristics of this emotion are to provide physical and psychological well-being and to make individuals have integrating experiences by approaching others more easily. There is an increase in the individual's creativity and self-esteem.

- Fear: is associated with danger and has the function of protecting the individual from the risks that will occur. It is an emotion that often occurs in childhood and adolescence. Usually people are afraid of things that do not represent any danger, as is the case of darkness. Fear is an emotion that can last for a short time or a long period depending on the intensity or of the threat felt by the individual. The activation of fear fosters the escape or retreat from the dangerous place to a protective situation, and the individual focuses all his energy to solve what is causing him terror. Fear is normal in certain phases of life, but when it interferes with a person's daily life it can become pathological. There are various situations and disorders related to fear, with individual, cognitive and social consequences, which can be worked on even within the school environment.

According to Goleman (2011, p. s/n), fear is represented by:

> Blood flows to the skeletal muscles, such as those in the legs, facilitating the escape. The face becomes livid since blood is taken from it. At the same time, the body is immobilized, even for a brief moment, perhaps to allow the person to consider the possibility of, instead of acting, fleeing, and hiding. Circuits in the emotional centers of the brain trigger the flood of hormones that put the body on general alert, making it restless and ready to act. Attention is focused on the immediate threat, to better calculate the response to be given.

Sadness: is related to significant losses for the individual, and is a more lasting emotion. It represents an unachieved goal, and this emotion at a cognitive level leads to the assessment of negative aspects of reality diminishing the social interaction and motivation of the individual. Sadness can also lead the individual to find the source of his problems, and thus, seeking to develop the capacity of empathy. It is important to ask for help when we are sad to renew energies. For Goleman (2005, p. 90) quoted by Carvalho Arruda (2014, p. 31), sadness "forces a kind of reflexive withdrawal from life activities, leaving us in a state of suspension to mourn the loss, meditate on its meaning and, finally, make the necessary psychological fittings and plans that will allow our life to continue".

Sadness leads to a loss of energy and enthusiasm for the activities of life, particularly for fun and pleasure. When sadness is deep, approaching depression, the body's metabolic rate slows down. This introspective withdrawal creates the opportunity to mourn a loss or frustration, to grasp its consequences for life, and to plan a new beginning when the energy returns. It is possible that this loss of energy was to keep

vulnerable human beings in a state of sadness so that they would remain close to home, where they would be more secure.

The sadness of having adaptive function brings benefits to the individual when it is well regulated. Otherwise, it can cause diseases such as depression, which can lead to emotional dysfunction and damage to the neurocognitive functions.

> Anger: is related to the frustration of not achieving desired goals. At the cognitive level, the characteristic is the absence of self-control or difficulty for remaining calm. Rage is considered as a negative feeling, but for Strongman (1998) cited by Carvalho Arruda (2014, p. 35), it must be seen as functional, as it provides a defense to the individual, and also includes the organization and regulation of physiological and psychological processes related to self-defense. Rage is an emotion difficult to regulate, according to Goleman (1995, p.79) quoted by Carvalho Arruda (2014, p. 35). It is the "most seductive of the negative emotions, in which the inner self-justifying monologue feeds it, fills the mind with the most convincing arguments to make it go away". Like that, it gives energy to the individual. According to Goleman (2011, p. s/n), "the heartbeat accelerates and a wave of hormones, adrenaline, among others, generates a pulse, energy strong enough for a vigorous performance".

In addition to the four basic emotions cited by Carvalho Arruda, Goleman (2011, p. s/n) still adds the following:

> Happiness: causes one of the main biological changes. The activity of the brain center increases, which inhibits negative feelings and fosters the increase of existing energy, eliminating those that generate thoughts of concern. But there is no particular change in physiology, but tranquility, which makes the body quickly recover from the stimulus caused by disturbing emotions. This configuration gives the body a total relaxation, as well as a willingness and enthusiasm to execute any task that arises and to move in the direction of a wide variety of goals.
>
> Love: a feeling of affection and satisfaction that implies parasympathetic stimulation, which is the physiological opposite that mobilizes the contrary to the feeling of fear or anger. The parasympathetic pattern, called the relaxation response, is a set of reactions that run through the entire body, causing a general state of calm and satisfaction, facilitating cooperation.

Regarding children's emotional experience, previous studies suggest that there are children who are not familiar with feelings. For Oaklander (1980, p. 145), some children are unfamiliar with feelings and can communicate their feelings through various experiences such as games, drawings, which can help them to make contact with their feelings.

Therefore, talking about feelings is important to facilitate the learning of their expression and to help people to learn to express them knowing that all people have feelings and that these basic feelings have variations, which can be expressed by the following words: happy, good, proud, angry, afraid, hurt, bored, disappointed, frustrated, hurt, lonely, love, like, jealous, special, particular, bad, joy, pleasure, regret, shame, displeasure, radiant, confident, strong, weak, feather, empathy, understanding, sympathy, admiration, sadness, tired. (Oaklander, 1980, p. 145).

According to Gallego & Gallego (2004, p. 83) quoted by Nunes-Valente, Monteiro (2016, p. 3):

> The school is also responsible for the education of values and competencies for coexistence and must prepare itself, differently, to work on the emotions and conflicts that occur within it. This is because "true emotional intelligence is what unites the emotional and the cognitive part, and its harmony is what guarantees its effective development to face any life situation".

Navarro Solano (2006/2007, p. 162) also considers important the school's involvement in various student skills and states that:

> The school must enable the child to develop his social skills and promote a balanced emotional education on an individual and collective level. Concrete aspects necessary for later adult life are the ability to work in a group, acceptance, and respect for others, participation in tasks, self-initiative, conflict resolution through non-violence, sharing, and also basic behavior for the development of social skills, both verbal and non-verbal, emotional and affective.

In all environments, school, work, family, and the sociocultural environment, unsettled situations occur and the individual who presents emotional competence is capable of giving immediate answers to the demands of the contexts. This can make it possible to achieve objectives, deal with challenges, and recognize the importance of emotions in relationships, as stated by Moreira, Oliveira (2012, p.42).

The child, in turn, perceives the world in his way. Thus, expression through graphic art (drawing) is one of the most significant forms of language, since it involves both the real and imaginary world of the child: the real world built and appropriated by the observation and imitation of their peers, and the imaginary, which they build from their absorption of reality. In this way, through drawing, the child transmits their significant experiences and that are registered in their mind, being able to be externalized as conflicts, emotions, and all the feelings involved. Therefore, the understanding of a child's drawing brings the meaning of the moment through which the child passes. According to Pillotto, Silva, Mognol (2004, p.2), "the language of drawing allows children to invent and experience their ideas, their actions, their desires and their feelings that are expressed in various ways, letting their emotions and their imaginary desire become transparent".

Therefore, in this study, the technique of drawing was used as a way to obtain information about the emotions and participants' feelings. Here we should talk about the technique itself: paper, pencil, the reason for the drawing, type of drawing... and how it is useful to evaluate.

Methodology

This is a bibliographic and qualitative review of drawing as a means of expressing emotions. It is a study of bibliographical and qualitative research to the extent that it understands the phenomenon seen from the subject's point of view.

Research Instruments

According to Souza Campos (1986, p.12), the authors who study the psychology of drawings try to address several aspects such as: phases of child development, methods of examining and measuring intelligence, motor skills, expression, character, psychopathology, among others. The drawing is considered as the way by which the child discovers and understands the world valuing psychic and intellectual relations in the process of social and cultural maturity.

Research Space

The research was developed in two Municipal Schools of Fundamental Education in the city of Sarandí, PR, Brazil. The city has 38 (thirty-eight) schools distributed throughout the urban space.

To improve the quality of the teaching-learning process, the Municipal Secretary of Education made available teachers in charge, classroom assistants, teachers of pedagogical support in counter-shift, art and physical education teachers, and students of teaching in an internship to work in the computer labs.

The location for the research and selection of the participating schools was selected by the Municipal Secretariat of Education of the municipality.

Subjects

The participants were selected by their teachers and educational advisors. 21 students from two different schools took part.

Inclusion criteria: Students should be enrolled, actively attending classes, be in the 2nd and 3rd year of primary school, and have good oral communication.

Exclusion criteria: not being a student of the selected schools, presenting mental problems that may contaminate the research and students with mental problems that make oral communication impossible.

Results

The black pencil drawings and the colorful ones reveal people's emotions and feelings, and the colors have special meanings for each individual. According to Valdivia (2011, p.3);

> the expressive value depends on the graphic gesture, even on a psychological level, it can show the child's temperament, his invigorating emotional reactions at least at the moment he makes the drawing. (...). In this way, the drawing records the emotional state, and one can notice, for example, the angry and aggressive trait that can reach the limit of tearing the paper, or the oscillating trait that is barely noticeable.

Research on drawing also studies the colors that children use because there is an expressive value in them. For Valdivia (2011, p. 5);

> bright colors are characteristic of open children, well adapted to the group; while dull colors characterize closed children, independent and often aggressive. The superposition of colors expresses the confluence of two

> tendencies, isolation shows the rigidity and fear, mixing without discrimination, immaturity, and impulsiveness.

This is because they reveal both positive and negative emotions. In this analysis, we focus on basic emotions. From the 21 participants, drawings from 6 students were selected for the analysis. We present chromatic and achromatic drawings. In the chromatic drawings, we observed the colors used by the student. On the other hand, in the achromatic drawings, we analyzed aspects such as: the size of the figure, type of the line, space used by the figure, characteristic of the line, space used by the figure to reveal the emotions and feelings characteristic of the individual at the given moment. The drawing characteristics of boys and girls of the same mental age are those in all countries, or what does not differ are the cultural and social differences (Valdivia, 2011, p. 9).

According to Navarro Solano (2007/2008, p. 163):

> We can see how they constantly create and recreate ideas and images that allow them to represent and understand themselves and their visions of reality. In the case of a work of art or a work of art.

The drawings presented are the originals designed by the children. In some of them, the features were highlighted, through the computer, to enable a clearer reproduction.

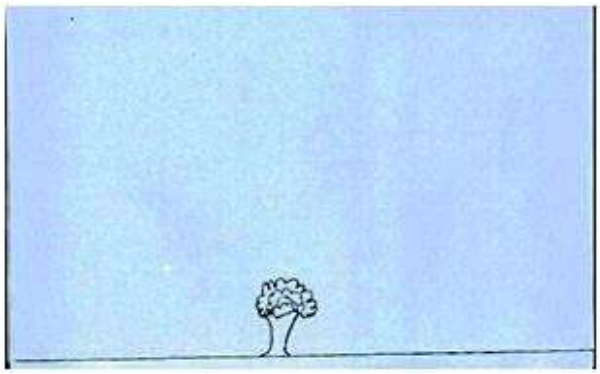

Figure 1. Drawing 1: Achromatic drawing, student 1

Note: Source: From the research, (2018).

Figure 1, drawn by a male student, shows a tree drawn at the bottom of the page. Also, the outline of the tree represents fear, and the type of crown represents joy. The basic emotions bring characteristics of secondary emotions as well. Therefore, when investigating the fear presented by the child, it is related to his actions of independence, where the subject presents difficulties of self-affirmation in front of the adult representative for him.

According to the teacher, the child is being taken care of by an old woman who treats him as a baby, doing all he wants. Hence, the child feels difficulty in having contact and presents fear with new activities. In contrast, we have joy as a way of overcoming fear and trying to value the external aspects. The student demonstrates the ability to improvise in delicate situations.

Figure 2. Chromatic drawing, student 2.

Note: Source: From the research, 2018.

Figure 2, drawn with colors, represents a church and a fortress. The colors are presented separately meaning that the student tries to control his emotions or direct them towards the desired goal. It is a form of balance. Associating color with the drawing "strength" can be related to negative feelings of sadness, destruction, and war. Red is a color that has more emotional characteristics, and it is associated with anger and can give strength to face difficult situations. Brown is associated with nature and represents discomfort, which may be related to fear (Vinícius, 2017, p.1).

Fear is an emotion that we acquire during the process of evolution. Fear protects us from dangers. The reactions that provoke fear are decisive for survival or death. This emotion has been built since the prehistory of humanity, according to Goleman (2011, p. S / n).

Figure 3. Chromatic drawing, student 3.

Note: Source: From the research 2018.

In Figure 3, we have the predominance of the colors blue and green, in different shades, where blue means sadness, but also represents calm. And green means that emotionally he is a weak individual and that any reason leads him to an extreme change of mood. The positive characteristics of this color represent security, courage, and hope. Yellow and red represent the strength of violence, which can be translated into anger negatively, and positively yellow represents joy.

Figure 4. Chromatic drawing, student 4.

Note: Source: From the research (2018)

Figure 4 represents the world. At first, the student tries to show that he is calm in his world, where all things are perfect for his perception, but when he observes the activities carried out by his schoolmates, he immediately changes his behavior by scribbling on the sheet of paper where the picture is. With that, he starts to represent emotions such as sadness or fear. When scribbling the page with the drawing, he shows that he is in anger for not being able to draw as well as his schoolmates. The child assumes the feeling of failure when he compares his drawing with the drawing of the other students.

Even in this drawing, we can see that the student is emotionally unbalanced, but for Goleman (1995, p. 247), quoted by Santos (2018, p. 44), "emotional literacy is an education oriented towards human feeling. The student learns to live together, to deal with, and improve his behavior through difficulties". The student externalizes the attempt to improve behavior by demonstrating his anger with black risks next to the drawing he made. For Fidella, Ribes, Agulló, and Soldevila (2002, P. 161) quoted by Burgos (2017, p. 8), education and emotional intelligence can be defined as:

> a continuous and permanent educational process that aims to promote emotional development as an indispensable complement of cognitive development. Both elements are essential for the development of a person's integral personality. For this, the development of knowledge and skills on emotions is proposed, to enable the individual to better face the challenges of everyday life.

However, in this drawing we can observe manifestations of desire on the part of the child, desires that are lived by him. For Derdyk (1989, p. 51), “the drawing expresses the desire for representation, but also the drawing, above all, is fear, is oppression, is joy, is curiosity, is an affirmation. At the moment of drawing, the child goes through an intense experiential and existential process”.

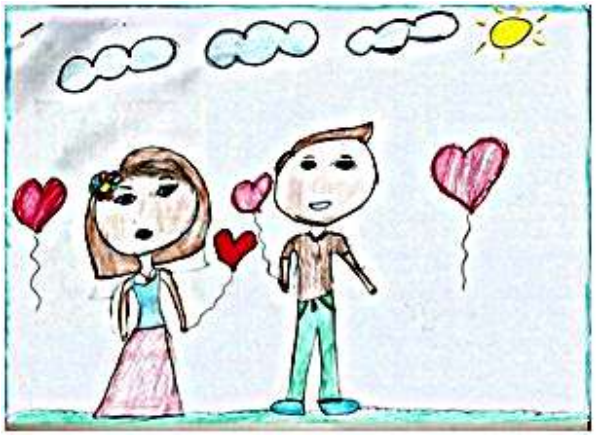

Figure 5. Chromatic drawing, student 5.

Note: Source: From the research (2018)

In Figure 5, several colors are used, and they have a certain proportion concerning the quantity. Blue represents calm and sadness. Red represents the positive characteristics of joy. Green, creativity An yellow energy and joy. The colors are presented separately meaning control of emotions, together with balance.

It can be observed in the drawing above that it is not an empty design, but it has meaning for the child. It can still be seen that there is a development of skills required within the schooling process. The child shows that learning in this case is involved in thoughts and feelings. Drawing is a form of language. Therefore, when drawing, the child transmits feelings. In the drawing above observing the elements that compose it, it can be interpreted that he goes through a moment of happiness, where the balloons with a shape of the heart represent the love received and shared.

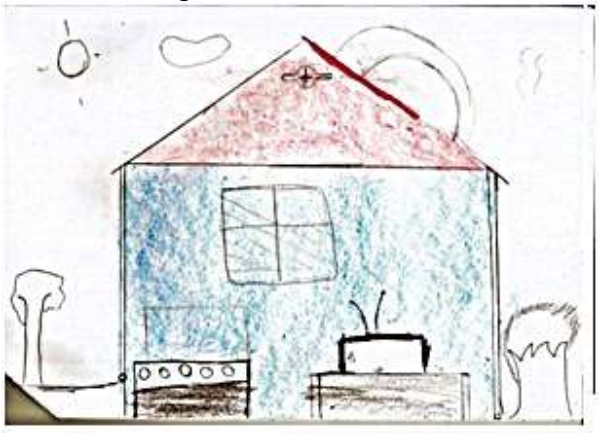

Figure 6. Chromatic drawing, student 6.

Note: Source: From the research (2018)

Figure 6 is a representation of a house, where the student uses three colors well separated: red, blue, and black. Red represents contained rage, a rage so strong that it reaches the level of hate represented by the color black. Also, it means sadness and fear. Blue also represents sadness, but because it is used in much of the drawing it can mean that the individual is looking for a way to assert himself in the social environment, trying

to control his emotions by directing them to other sources. The student's fear is related to actions, which begin to be independent.
Through the drawing, the child tries to abstract and understand situations that for him are complex from the family relationship, represented by the house.

For Goleman (1995) cited by Días (2014, p.14):

> the individual can motivate himself and persist despite frustrations; to control his impulses, postponing the reward; and to control his state of mind, preventing discouragement from dominating him, not letting him think, feel empathy and have hope. Developing competencies at this level fosters the individual's relationship with himself and with others, improves learning, and promotes personal and social well-being.

All emotions are due to the evolution of humanity and perform specific functions, which can be observed through different responses from the body to each type of emotion. Goleman (2011, p. S / n).

Conclusion

Regarding the relationship of emotion with human learning, Cohen (2003, p. 9) highlights a key fact: cognitive growth depends on the development of emotional and social understanding.

Emotional education can contribute to the construction of the learning process allied to psychology. Gradually and with the use of different techniques, learning and the acquisition of content can be improved in the child population.

Educating children by teaching them to perceive their emotions is not an easy job. Therefore, it is necessary to consider the culture, the social environment, and the environment in which they are living. Likewise, one must consider one's individuality, knowing that emotion is something uniquely felt by each being. According to Vallés & Vallés, (2000) quoted by Cohen (2005, p.74),

> by extension, the specific effects of emotional education lead to results such as: a) Improved self-esteem and self-concept that have an impact on the level of social skills and satisfactory interpersonal relationships; b) Less antisocial or socially disordered behavior and less self-destructive thinking; c) Fewer class expulsions, less risk of starting using drugs, better school, social and family adjustment; and, d) Improved academic performance.

Consequently, emotional education encourages interaction between people. Besides, emotions play an important role in the individual's quality of life, provided that he or she manages to understand them.

While drawing, the child finds a space to express his daily life, and even if he only scribbles, these have important meaning for him, since the drawings reflect his relations with the social environment and with his surroundings.

In the drawing, he places all his emotion using cognitive processes, such as memory, reorganizing himself to emphasize the drawing so that it can be interpreted by him and by others demonstrating the feeling as clearly as possible. It can be said that children who use EI to acquire skills to identify and understand the meaning of their emotions, can solve and adapt to everyday difficulties (Burgos, 2017, p. 10). In the

existing literature on the subject, it is observed that authors in general relate emotional intelligence to oral and written language. The drawing arises from verbal language, so the two structures are related and complement and enrich each other.

After achieving motor control, the child's form of verbalization stands out in graphic art. The written language is the result of the maturation of the motor processes and the reflection of the sign representation (Valdivia, 2011, p. 28-29). Vigotsky, quoted by Valdivia (2011, p. 30), tries to clarify the relationship between graphic language and verbal language;

> Drawing is a graphic language that emerges from verbal language. The schemes reminiscent of verbal concepts, drawing, as well as body gestures, visual signs, and symbolism of the game are preparatory studies for the development of the child's written language. They are like its prehistory.

Although, according to Valdivia (2011, p. 30);

> plastic expression as a non-verbal language, as a vehicle of expression-communication and as a means of knowledge, has an entity by itself and it must be considered by the school, and must have its objectives. Although as an activity, it must be contemplated in a globalizing way, integrated into the school curriculum. But at the same time, within this curricular process, we should not lose sight of the fact that plastic expression makes possible the development of abilities and the acquisition of resources that favor and foster the comprehensive development of the individual and the assimilation of learning.

We can not forget that drawing is also a form of language. It emerged with the cavemen and through them, humanity made a retrospective of its history. According to Rocchietti (2009), the cave drawing imposed a symbolic arbitrariness. Through the drawings found in the caves, it was possible to discover the type of society, the time in which it existed, the culture, and even the feelings and emotions experienced by existing peoples.

For this reason, the analysis of the drawings in school-age children is considered important to understand situations lived by the students inside and outside the school, their fears, their anguish, and anger, as well as all kinds of emotions that may interfere with the teaching and learning process. Likewise, it is necessary to plan actions that aim to minimize the frustrations and difficulties of students within the teaching and learning process that teach them to deal with emotions with resilience.

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ENGLISH TEACHERS IN VENEZUELA: ANALYSIS OF THEIR PEDAGOGICAL BELIEFS AND PRACTICES REGARDING THE CORRECTION OF WRITTEN TEXTS

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Abstract. Adopting an interpretive stance by analyzing qualitative and quantitative data collected in an online questionnaire, this mixed methods research aims to explore the practices and beliefs teachers of English as a foreign language in Venezuela have regarding written corrective feedback. Using a non-probabilistic sampling, the participants are 173 professors belonging to the Association of English Teachers, VenTESOL, who teach in different educational institutes, at all levels and modalities available. In reference to the practices found, the results indicate that providing the student with the correct form of the error is the most used, followed by underlining the error, but not giving the appropriate form. It is concluded that teachers correct all errors at an average of between one or two drafts. Concerning beliefs and perspectives, teachers believe that corrective feedback is a multidisciplinary, participatory, and effective process that allows students to understand, analyze and reflect on the mistakes made, as well as, promotes the development of writing skills. Additionally, this research found that the personal notion of teaching, learning and error, experience as a student, academic training, professional development, teaching experience, curricular and institutional guidelines combined with the level of English possessed by teachers, and the time available to correct are the factors that influence educators and predict their practices concerning the provision of written corrective feedback. The implications include future research derived from the findings of this study, concrete suggestions for the improvement of teacher training programs, as well as proposals for teacher professional development.

Keywords: English as a foreign language, feedback, teacher beliefs, evaluation, pedagogical practices.

LOS DOCENTES DE INGLÉS EN VENEZUELA: ANÁLISIS DE SUS CREENCIAS Y PRÁCTICAS PEDAGÓGICAS CON RESPECTO A LA CORRECCIÓN DE TEXTOS ESCRITOS

Resumen. Adoptando una postura interpretativa mediante el análisis de datos cualitativos y cuantitativos recopilados en un cuestionario en línea, esta investigación de métodos mixtos tiene como objetivo explorar las prácticas y creencias que los docentes de inglés como lengua extranjera en Venezuela tienen con respecto a la retroalimentación correctiva de textos escritos. Utilizando una muestra no probabilística por conveniencia, los participantes son 173 profesores pertenecientes a la Asociación de Profesores de Inglés, VenTESOL, quienes dictan clases en diferentes institutos educativos, en todos los niveles y modalidades disponibles. En referencia a las prácticas encontradas, los resultados indican que el proporcionar al estudiante la forma correcta del error es la más usada, seguida por subrayar el error más no dar la forma adecuada. Se concluye que los docentes corrigen todos los errores a un promedio de entre uno o dos borradores. En relación a las creencias y perspectivas, los docentes opinan que la retroalimentación correctiva es un proceso multidisciplinario, participativo y efectivo que permite a los estudiantes entender, analizar y reflexionar sobre los errores cometidos, así como también, promueve el desarrollo de las habilidades de escritura. Adicionalmente, esta investigación encontró que la noción personal de la enseñanza, el aprendizaje y el error, la experiencia como estudiante, la formación académica universitaria, el desarrollo profesional, la experiencia docente, los lineamientos curriculares e institucionales aunados al nivel de inglés que poseen los maestros y el tiempo disponible para corregir, son los factores que influyen en los maestros y predicen sus prácticas sobre la provisión de retroalimentación correctiva. Las implicaciones incluyen futuras investigaciones derivadas de los hallazgos de este estudio, sugerencias concretas para el perfeccionamiento de los programas de formación del profesorado, así como también propuestas para el desarrollo profesional docente.
Palabras clave: inglés como lengua extranjera, retroalimentación, creencias docentes, evaluación, prácticas pedagógicas.

Introduction

It is a well-known fact among teachers of English as a foreign language that the acquisition of the skills is a process that must take place gradually and have the appropriate strategies, not only for learning and practicing them but also for teaching them (Brown, 2000). This has led both educators and researchers to look deeply into an important part of the teaching process of a new language, as it is the assessment: how learners are made aware of their mistakes and how teachers feel about this unavoidable role.

In the specific case of handwriting correction, many aspects take part and become both motivating and inhibiting agents for both sides of the equation. Students do not always know what correction pattern is used by the teacher on duty, and teachers do not have a solid criterion for deciding which errors to penalize and which not. For this reason, this research allowed us to look deeper into the teaching practices regarding corrective feedback of writing, in this specific case, in texts written in English (Ellis, 2009).

While it is important to know which are the pedagogical strategies applied to the evaluation of written texts, it is no less important to understand why teachers choose certain criteria and how they feel after using them. Kuzborska (2011) has found that teachers' practices are aligned with beliefs and that is why this study seeks to delve into the educators' perception of writing errors, how they approach them and what influences their decision-making when selecting some strategies over others.

In this sense, it is undeniable that the beliefs that a teacher brings to the classroom are a strong predictor of behavior and, therefore, they have educational implications. There is increasing evidence that teachers' epistemic cognition is related to the way they conceive and engage in teaching. Therefore, teachers must develop adaptive epistemic cognition, that is to say, teachers' beliefs are directly related to their practices and have an impact on students' educational experiences and outcomes (Lunn, Ferguson and Ryan 2017).

However, it is considered that few practical outcomes have emerged to guide language teachers in the classroom and that is why this research is undertaken. This supports Ferris's (2011) idea of guiding research and debate on how to approach error handling with a sense of when and why we should do so. This study makes considerable contributions in this area, as it investigates not only the written error correction strategies most used by teachers but also the reasons behind the decisions made by English teachers in this regard.

How teachers respond to their students' written productions is an interesting field not only for teachers but also for teacher trainers. Teachers are sometimes facing the uncertainty of how to provide effective and meaningful written corrections: what is a mistake that needs to be corrected immediately for some may not be considered as such by others.

For this reason, this research is justified, since it provides interesting and significant data that serve as a basis for important changes or innovations, not only in the curricular design of teacher training programs in Venezuela but also in the implementation of workshops and extra-curricular professional development activities offered by different teacher organizations that provide teachers with opportunities for professional improvement.

In this way, the results obtained in this work make it possible to show aspects referring to written corrective feedback of texts in English as a foreign language that should be included as essential content in these courses to strengthen such programs to satisfy the theoretical and practical knowledge needs of future English teachers.

This research promotes a search for a deeper vision to reflect on what teachers do and what is behind their decisions in general, particularly when providing corrective feedback in writing, in contexts where the language is seen as a means of verbal and written communication. Specifically, Richards and Schmidt (2002, p.90) explain that "the goal of language learning is communicative competence, which tries to create meaningful communication and the use of language as the focus of classroom activities". As understood, the goal is that learners can communicate effectively, and use English to communicate coherent and cohesive messages.

To begin discussing the strategies found in this study, it is necessary to define corrective feedback from written expression. From a conceptual point of view, corrective feedback can be defined as the information provided to students about the performance of a task. Hence, one of the objectives of feedback would be to improve future performance (Ur, 1996). According to Brookhart (2008), the benefits of feedback extend to a motivational and cognitive level, since, at the cognitive level, feedback gives students the information they need, so they can understand their progress in learning and what they should do to improve further. At the motivational level, once students feel that they understand what they should do and why most of them will develop control over their learning. These two factors are part of the framework that involves corrective feedback from texts written in English as a foreign language.

For this research, corrective writing feedback is defined as the strategies used to provide written responses to the student productions that contain errors. Below, Table 1 summarizes the types of corrective feedback strategies present in this study.

Table 1
Types of written corrective feedback in this study

Type of feedback	*Description*
Direct	The teachers give the student the correct form
Indirect	The teacher indicates that there is an error but does not give any correction.
a. Indication + locating the error	**a.** Highlighting the error in the students' texts.
b. Only indication	**b.** Indication in the margin that shows that an error has been committed in a line of a text
Metalinguistic	The teachers give metalinguistics clues about the error origin.
a. Codes use	**a.** The teacher writes codes (for example, ww: wrong word: art: article)
b. Brief grammatical description	**b.** The teacher indicates the errors of a text and writes a grammatical description of each error numbered at the end of the text.
Selective and Comprehensive	This happens when the teacher tries to correct all (or most of them) of the students' errors or prefers to select one or more types of errors to correct. This distinction can be applied to each of the previous options.
a. Selective	a. It is focused
b. Comprehensive	b. It is unfocused

Note: Author's creation based on Ellis (2009) and Ferris (2011)

Finally, it is necessary to explore previous studies that have specifically investigated teachers' practices and beliefs regarding corrective feedback of written texts in teaching-learning contexts of English as a foreign language and that have served as a reference when carrying out this research.

This is the case of Jodaiey Farrokhi (2012), who carried out a study in Iran to explore the perspectives of English teachers on feedback and their reasons for selecting certain strategies. The results show that teachers have very positive perceptions of correction and its potential use in English language teaching. It also concludes that teachers prefer to use direct feedback strategies while tending to point out all grammatical errors.

Similarly, the correlational study by Zangoei and Derakshan (2014) tried to examine the relationship between foreign language teachers' corrective feedback preferences and their attitudes towards the principles of communicative language teaching. The results confirmed the relationship between these two variables and found that metalinguistic feedback was the most frequently type selected by the participants.

In their study, *Is the feedback in higher education assessment worth the paper it is written on? Teachers' reflections on their practices*, Bailey and Gardner (2010) addressed a group of teachers' perceptions of the role and effectiveness of writing corrective feedback. According to the results, teachers have a variety of perceptions and beliefs about the purpose

of corrective writing feedback. Besides, they are unsure of what they achieve and what students get out of it.

Also, Lee, Mak, and Burns (2015) conducted a study to examine how teachers implemented innovative feedback approaches in their writing class and the extent to which these innovative approaches impacted student attitude and performance. The results suggest that focused feedback is a viable option for responding to student writing, especially for low proficient students in English as a foreign language context.

Also, Duran and Carrillo (2017) conducted a study where they tested the different types of corrective written feedback and its effectiveness. The study used a quasi-experimental design to demonstrate that written corrective feedback is beneficial to the process of acquiring grammatical structures in texts written in English as a foreign language in the participants' learning context, both in the short and long term.

For their part, Saavedra and Espinoza (2018) present a mixed study entitled: *Combining strategies for using focused written corrective feedback: A study with Chilean EFL students at the Upper Primary Level*, in which they compare the written production of 60 students divided into three control groups in an English teaching program at a university in southern Chile. Analyzing the results, it is shown that there was a significant improvement in terms of grammatical usage.

The studies mentioned above serve as a framework and reference for the analysis of the data obtained in this research since they address important variables for this research such as the corrective feedback of written texts, their effectiveness, and the beliefs of both teachers and students in this regard.

Method

Design

Taking into consideration the nature of the data collected (both qualitative and quantitative) and to achieve the objectives proposed, this study uses the research design called mixed methods (Hamui-Sutton; 2013, Leech and Onwuegbuzie, 2009).

This research is based on the concept of triangulation, depth, diversity, interpretative richness, and understanding sense (Brannen, 2005). This basis opens the opportunity to study in greater depth the written corrective feedback provided by teachers of English as a foreign language in Venezuela. This is because the instrument for collecting qualitative and quantitative data, when working together, yields information that allows for understanding this reality for its transformation.

Participants

For this mixed study, the population consisted of approximately 400 teachers of EFL As access and participation are almost impossible for absolutely all members of the population studied, a non-probabilistic sample was taken for convenience. The 173 subjects, that took part in this study, were contacted by the researcher and selected because of their willingness to participate. For this reason, no statistical formula was applied to calculate the sample, because it was voluntary, non-exclusive participation.

Variables

The following figure illustrates the classification of the variables studied which, to guarantee the quality and effectiveness of this research, was operationalized, analyzed, and correlated.

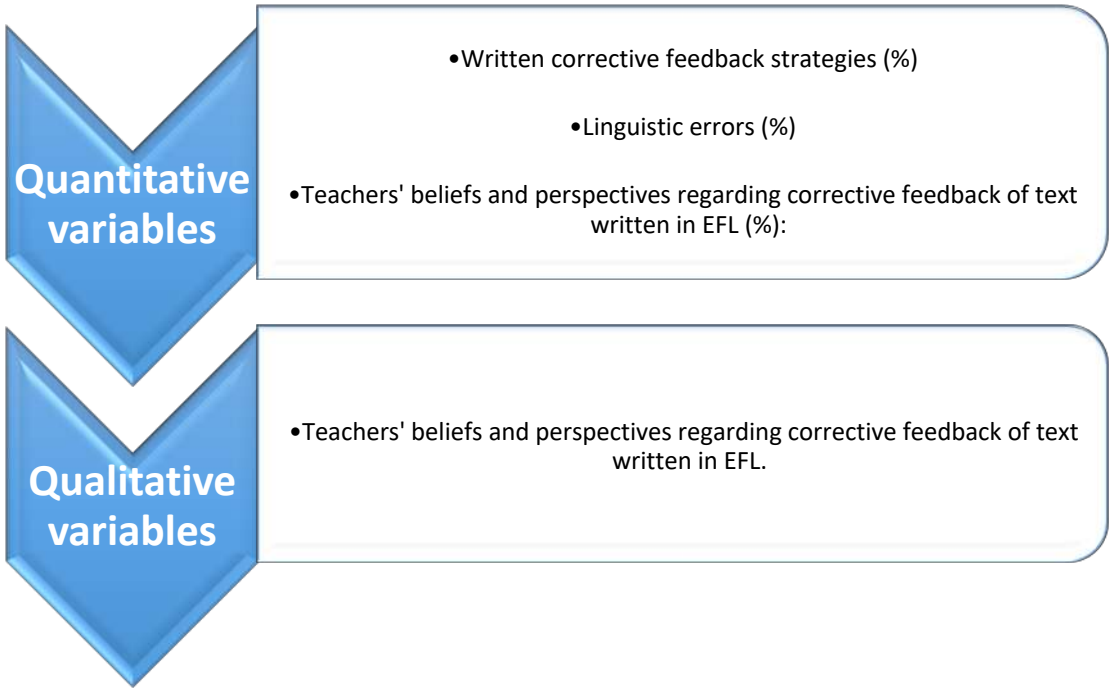

Figure 1. Research variables
Note: Author's creation

Objectives

The general objective of this research is to analyze the practices, beliefs, and perspectives used by teachers in the correction of writing in EFL at different levels and in different educational contexts in Venezuela. The specific objectives are: to identify the most frequent practices and strategies of corrective feedback of written expression among teachers of EFL; to establish the frequency with which teachers give their students' written corrective feedback; to define the beliefs that teachers have, regarding the correction of errors in writing; to examine the perspective that teachers have regarding the role that errors play in the teaching of writing in English; and, to analyze the criteria or factors that influence the teacher when deciding to penalize or not a writing error.

Instrument

To collect both qualitative and quantitative data, an online questionnaire called "Written Corrective Feedback: Analysis of the Practices and Beliefs of Teachers of English as a Foreign Language in Venezuela" was used. It not only contains behavioral questions to find out what respondents are doing or have done in the past, regarding written corrective feedback in the teaching of writing in EFL but also includes attitudinal questions to analyze the perspectives, opinions, beliefs, and attitudes of these English teachers.

Regarding validity, the questionnaire was examined by a panel of 10 experts in the field. Through a meta-analysis of the instruments, they indicated the areas that needed amendment, which allowed for the rewriting of some questions that were not clear enough. Finally, after having modified the instrument, taking into consideration the recommendations received, the experts determined that it met the technical conditions and it was in line with the objectives set out in this research. Regarding construct validity, the instrument was correlated with the objectives proposed for this research.

To determine the instrument reliability, a pilot sample was selected. It was formed by 10 teachers with similar characteristics to those of the population in this study. The pilot results, together with the recommendations made by the experts who evaluated it, also allowed for the revision and redesign of a more robust, reliable, and valid questionnaire.

Data Analysis

We follow a procedure in which the results obtained were compared and contrasted, allowing for triangulation of information to reach relevant and practical results, conclusions, and recommendations that are close to the educational reality experienced by teachers in Venezuela.

The process and analysis of the data was carried out using N-Vivo. The participants were coded with numbers to guarantee anonymity. All the answers to the questions or items were organized in a spreadsheet with the idea of classifying and analyzing data in an accessible way. All data was automatically saved and stored not only on N-vivo but also on Google Drive allowing access to these documents at any moment.

The quantitative data was studied by analyzing the appearance frequency of significant and relevant categories, with percentage values, which were graphed for better analysis of the results obtained.

To examine the qualitative data, they were organized by questions to identify similar, different, and significant characteristics or categories. For the analysis, a mixed coding or categorization procedure of the qualitative data was used: Some codes or categories were predetermined, while others emerged from the collected data.

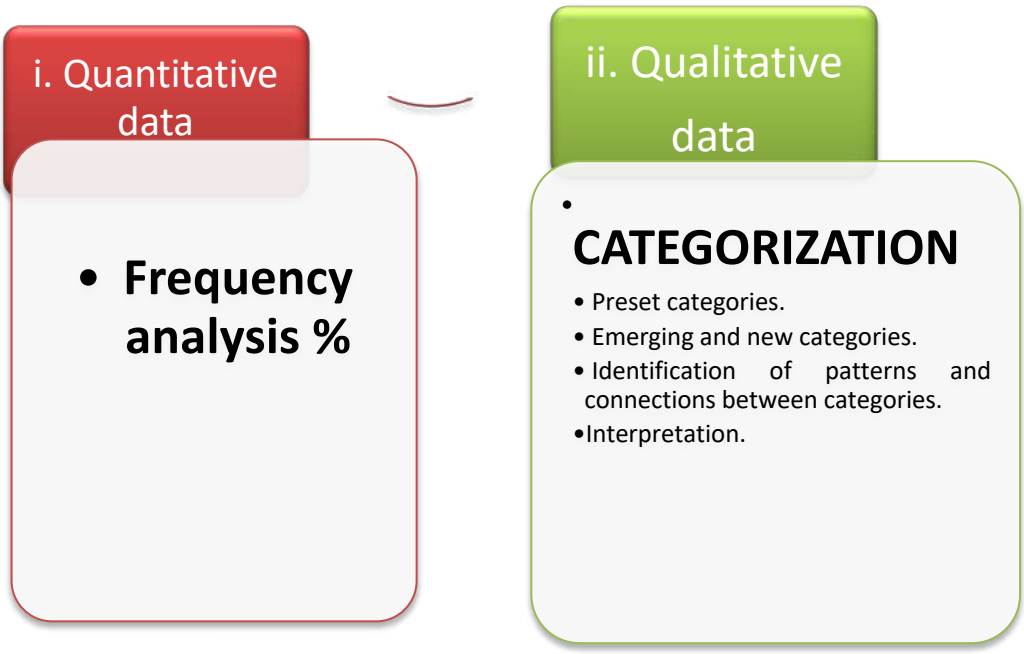

Figure 2. Illustration of analysis procedures of the collected data
Note: Author's creation

To triangulate the data, the data obtained from the quantitative items were compared with those obtained qualitatively. The instrument was designed so that certain categories could be corroborated by analyzing both types of data to verify whether there was a divergence

between what teachers reported as practices and beliefs regarding the supply of corrective feedback in their students' written texts.

Finally, the aim was to guarantee the quality and effectiveness of this mixed study by different means:

- Appropriate research design and methodology that can be evident to the professional and academic community through a meticulous description and methodological justification, as well as sufficient information about the context and the issue of the research.
- The guarantee of honesty in the responses by the participants' anonymity and their possible withdrawal from the study, when necessary.
- Piloting of instruments, expert judgment, and redesign given the evidence.
- Triangulation of mixed data.

Results

Corrective feedback practices

Regarding the types of corrective feedback strategies used in their classes, all the respondents argue that, depending on the level, age of the learners, and modality in which the English classes are conducted, they use more than one strategy.

Of all the strategies offered to the students, providing the student with the correct form of speech where there is an error is the most commonly used, followed by underlining the error, but not giving the correct form. On the other hand, according to the data obtained, the least used corrective feedback strategy consists of listing all the errors and giving a description of each one (see Figure 3).

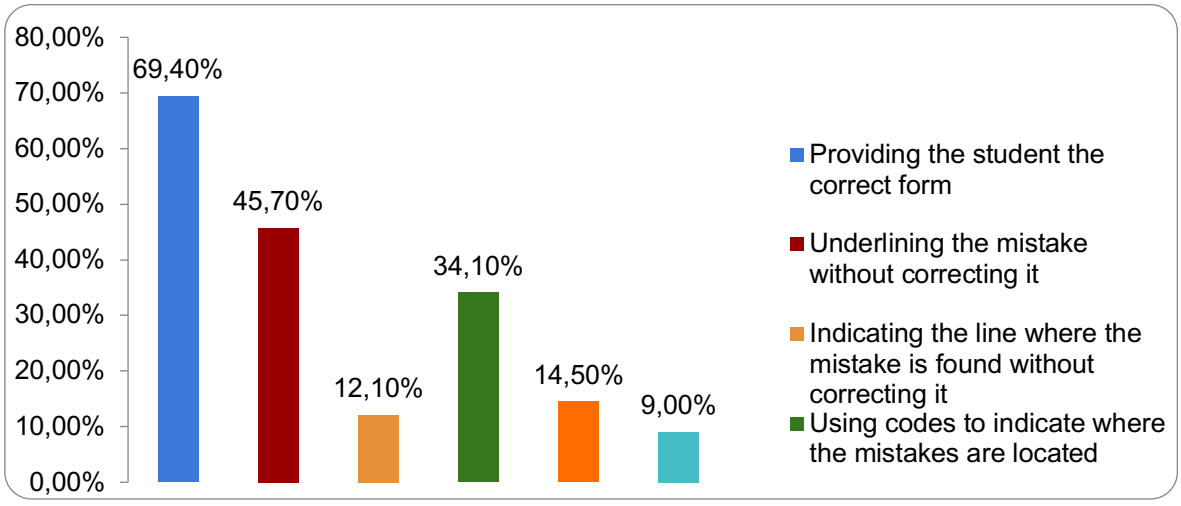

Figure 3. Number of corrected drafts per student, by assignment

Regarding the frequency with which teachers provide corrective feedback, first of all, the data collected show that the highest percentage of teachers correct two drafts of texts written by students. A total of 108 out of 173 participants correct between one and two drafts of the same text (Figure 4).

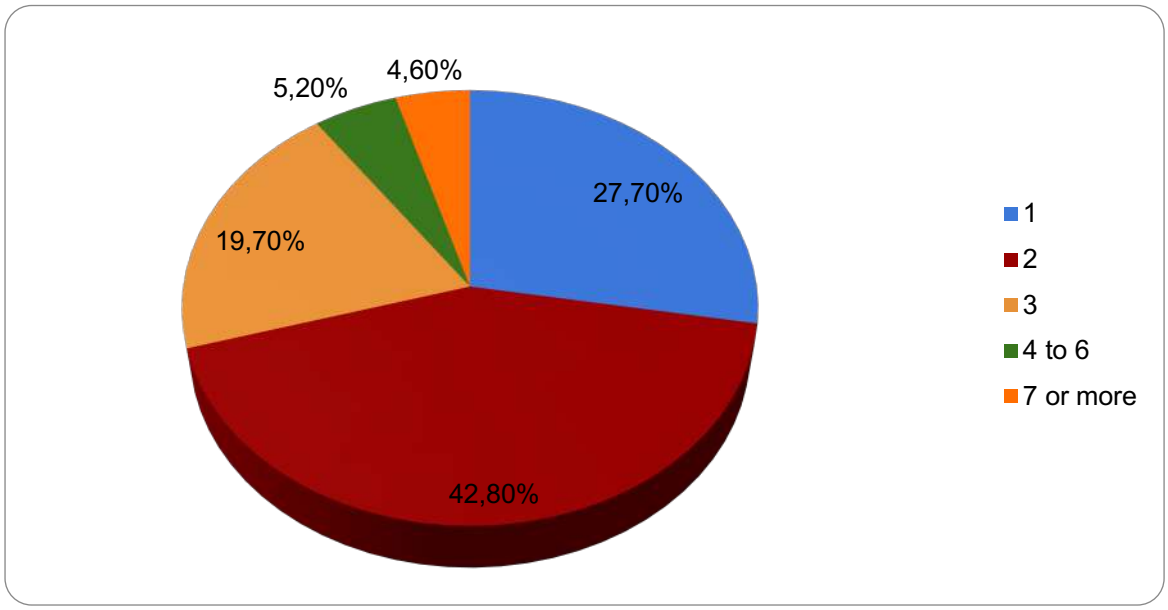

Figure 4. Number of corrected drafts per student, by assignment

This finding is related to one of the emerging variables found during the comprehensive data analysis: the time and limited availability of teachers to provide corrective feedback to their students. This fact, together with other factors that intervene in the teaching-learning process such as the number of students per class, the objectives, and the level that is taught, among others, causes most teachers to review and correct by assignment between one or two drafts per student.

Regarding the number of errors corrected, firstly, as illustrated in Figure 5, 150 teachers claim to correct in a comprehensive manner, which means that all errors present in their students' texts are corrected. The reasons given are varied. The most mentioned by the participants are three: to avoid students making the same mistakes innumerably; the teacher's role as a model and mediator of the process of acquiring written skills; and the idea of grammatical accuracy as the ultimate goal of English classes.

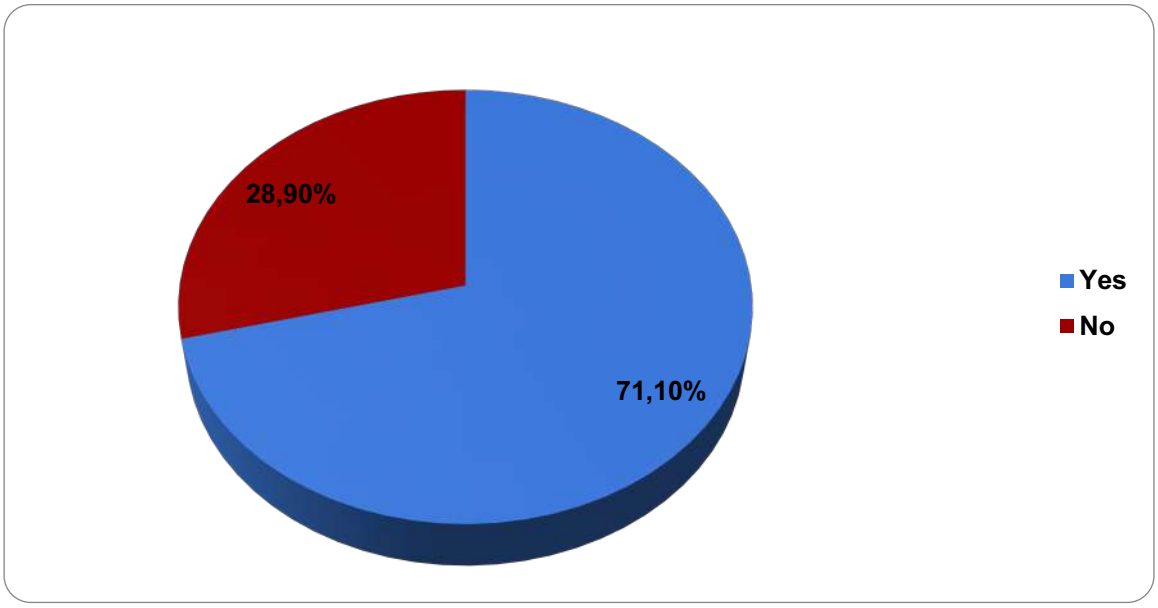

Figure 5. Percentage of teachers who correct all errors found in written texts.

Teaching beliefs and perspectives

According to the individual concepts expressed in the data collection instrument and shown in Figure 6, for the 173 Venezuelan teachers participating in this study, written corrective feedback is an interactive and participatory process that involves both students and teachers. Within the teaching-learning process of a foreign language, the purpose of correction goes beyond correcting an error. The aim is to show or investigate the correct form and think critically about it to progress in the learning process (40.46%).

For these professionals, this learning tool should be used to allow students to understand, analyze and reflect on the mistakes made to prevent them from happening again, as well as to promote the development of writing skills in English (53.18%).

Also, written corrective feedback provides teachers with meaningful information needed to evaluate student progress, as well as to provide valid data that allows teachers to plan class sessions that address the real academic needs of students, based on teacher analysis of student errors (6.36%).

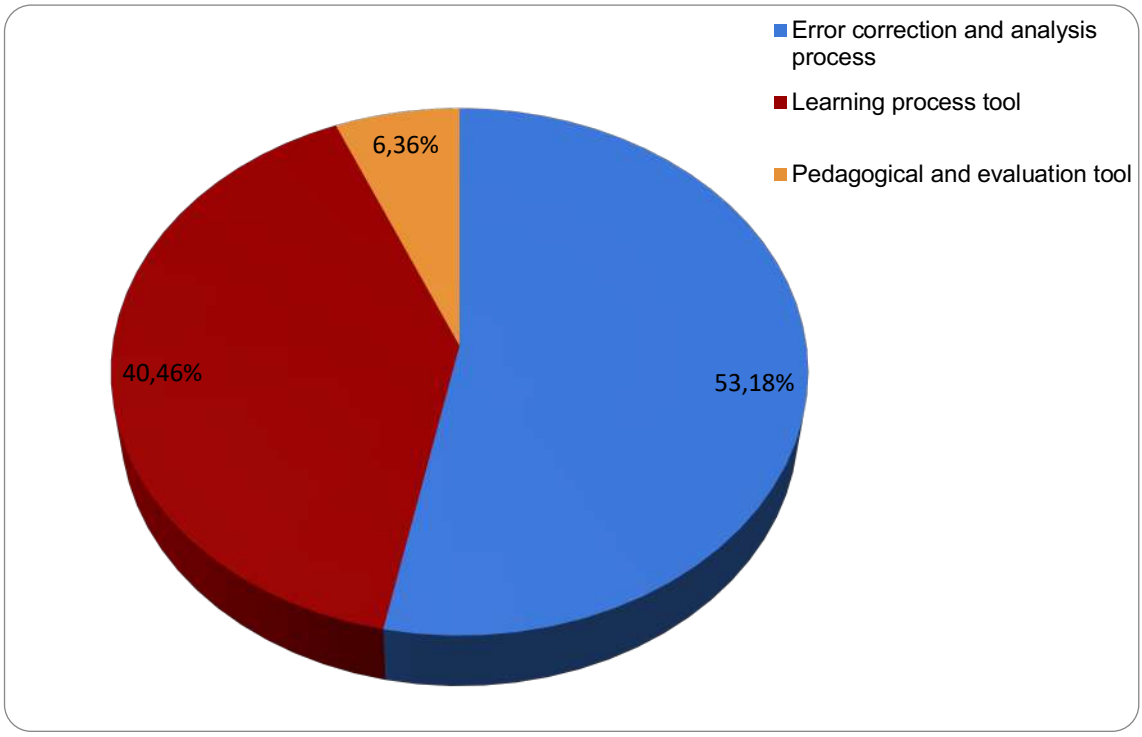

Figure 6. Personal concept for corrective feedback

It is also concluded that most teachers surveyed believe that corrective feedback is effective in reducing the number of errors that students make when writing in L2 since it is a very important tool for the development of the learning process:

- It gives students opportunities to reflect on and analyze the mistakes made to use strategies to avoid making them again. Therefore, that creates awareness of the error and its correct form.
- It remains in time and serves as a written resource for consultation in case of doubt.
- They control their students' progress.
- Offers guidance to both students and teachers to improve writing skills.
- Allows personalizing the learning process of a foreign language.

Besides, as shown in Figure 7, the results collected show that the vast majority of respondents (94.80%) consider that errors play an important, essential and vital role in the teaching-learning process of EFL. On the one hand, taking into account the student's perspective, an error is seen by 76.30% of teachers as an opportunity to learn, improve and reflect on the way English works for communicative purposes. For these teachers, it is necessary and inevitable that students make mistakes. On the contrary, they help in language skills development.

Interestingly, 18.50% believe that, apart from playing a key role in the process of improving written skills and being a learning opportunity for students, mistakes also provide teachers with meaningful information not only about the progress and level of learners but also about the weaknesses that need to be addressed. In this way, the findings show that participants consider the role of the error to be important and necessary, since it allows them, as teachers, to conceive and plan relevant strategies that help learners to develop their full potential while improving their writing skills in English.

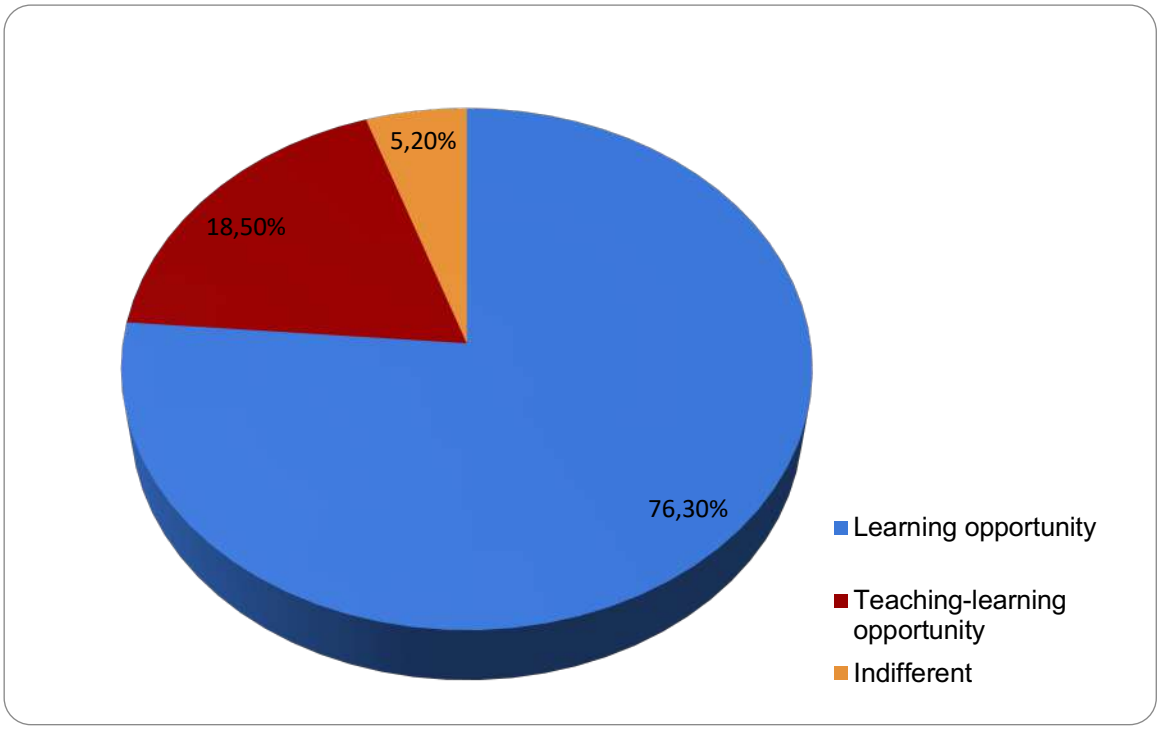

Figure 7. Error role in the process of teaching writing in EFL

Regarding the sources of teacher influence, as shown in Figure 9, the findings state that the personal notion or concept that they have concerning teaching, learning, and errors, learning by observation, teacher education, professional development activities, professional experience, curriculum, institution features, time available for correction, among others, are some of the most frequently mentioned influence factors by this study participants.

Consequently, the results show that a significant number of teachers (52) indicate that their concept with relation to teaching, learning, and the role of error within English classrooms, is what most interacts with their pedagogical practice in this sense. Also, the most mentioned sources of influence were these teachers' experiences as students (41 answers), the teacher training courses that the participants took to obtain their university degree in teaching (25 answers), the experience within the classroom as teachers of EFL (20 answers) and different professional development activities (11 answers).

In analyzing the data, the results show that, with less impact, other sources of influence are indicated as important by some teachers. They claim that both institutional guidelines and the curriculum they are working with at the time, as well as the level of English they believe they possess and the time they can spend correcting their students' written texts, influence the way they provide written corrective feedback.

The results of the data analysis also underline the time as a factor that influences not only teachers but also the way their students use the given corrections. This means that the lack of time available that teachers suffer, influences not only the supply of corrective feedback on written texts but also the later revisions that students must make to improve their English writing skills.

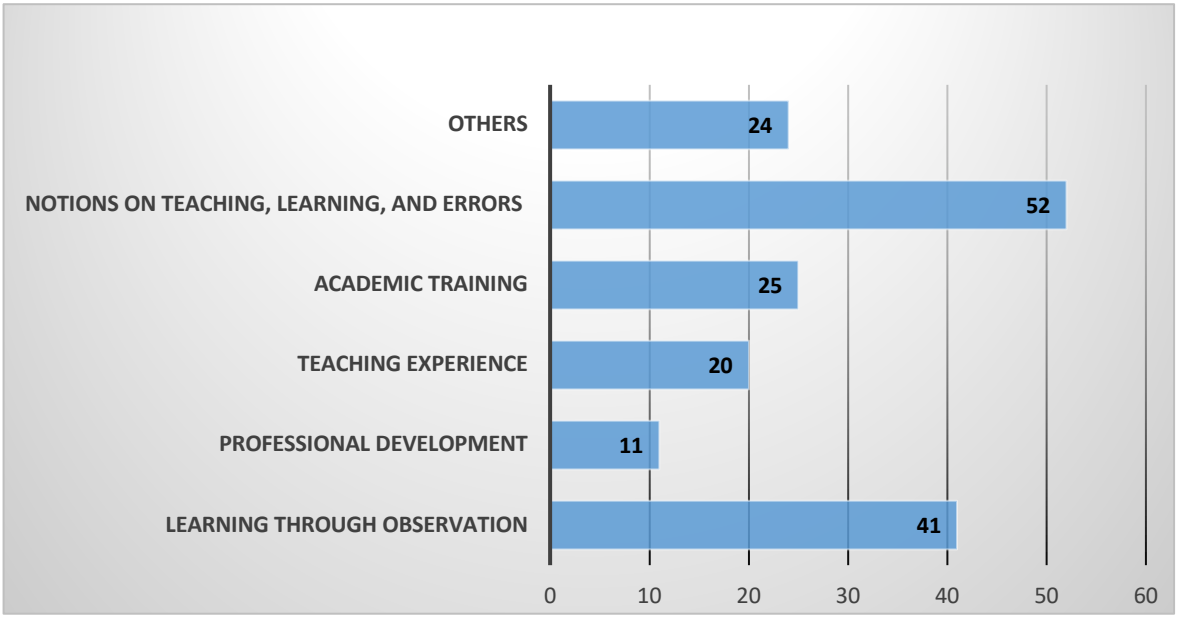

Figure 8. Factors influencing RCE decision-making

Discussion and Conclusions

Once the findings from the use of the questionnaire designed to collect the necessary data for this research have been analyzed, this section develops a clear and precise statement of this study's conclusions following the objectives set out. Also, we present the limitations found during the development of this research and the possible implications derived from the results obtained.

Regarding the first specific objective: "To identify the most frequent practices and strategies of corrective feedback of written expression among teachers of English as a foreign language". It concludes that, of all the corrective feedback strategies available in this study, the first is to provide the student with the correct form of the sentence where there is an error. Therefore, it is the most used, the second is to underline the error found, but not to give the appropriate form.

Initially, according to the findings reported in this research, the written corrective feedback practices that teachers use in writing follow the typology of correction established by Ellis (2009) and Ferris (2011) and explained in the introduction. The use or supply of not one, but several strategies was indicated by these participants when they chose more than one option in the questionnaire.

On the one hand, current evidence indicates that, when it comes to providing corrective feedback on students' written texts, teachers prefer to provide the correct form. In this sense, these seem to be consistent with the results of other research carried out by Jodaie and Farrokhi (2012) that also concludes that teachers prefer to use direct feedback strategies such as providing students with the correct form of the error found.

On the other hand, the study results contradict the findings of Zangoei and Derakshan (2014), who found that metalinguistic feedback, or the use of codes to point out the type of error made, is the strategy most commonly used by English language teachers. This divergence may be since teachers in Venezuela indicate that they have very little time to correct written texts. Therefore, providing the correct form or simply underlining the error, but not giving the appropriate form directly on paper, is a faster and more practical way.

In response to the objective: "To establish the frequency with which teachers provide their students with written corrective feedback". This study indicates that most Venezuelan teachers correct between one or two drafts per student of the same text. The results also conclude that teachers corrected absolutely all errors found. Also, when teachers must decide on the number of drafts or versions to be corrected, their notion of the use of corrective feedback on written texts, as well as the time available, are factors that influence the supply of corrective feedback on their texts to students as a means of revising and improving writing in EFL in the classroom in Venezuela.

This corroborates again the findings of Jodaie and Farrokhi (2012), who found that their study participants, apart from preferring to use direct corrective feedback strategies, tend to correct all the errors found. Nevertheless, it is contrary to the findings of Lee et al. (2015), who indicate that selective written corrective feedback is the most widely used option. This may also be related to the belief that teachers in Venezuela have regarding correction when they brand it as necessary, vital, and important so that all errors should be corrected.

Taking into account the objective: "To define the beliefs that teachers have regarding the correction of errors in writing"; one may conclude that teachers believe that corrective feedback of written texts serves to:

- Correct errors and provide the correct form of the error found. This turns out to be the notion of corrective feedback as an *opportunity for correction and error analysis.*
- Create the necessary conditions that allow students to learn in a meaningful way, reflecting on and analyzing the mistakes made. In other words, the process of learning and developing writing skills is more important than the final product (writing without errors). This leads to an understanding of corrective feedback as a *learning tool.*
- To make informed decisions regarding evaluation and pedagogical strategies to be carried out in the classroom, to facilitate the teaching-learning process. This turns out to be the understanding of correction as a *pedagogical and evaluation tool*.

The results obtained in this research support the findings of Bailey and Gardner (2010). On one hand, their results confirm one of the findings explained in previous paragraphs. These states that educators have a variety of beliefs about the corrective writing feedback purpose.

Taking into account the objective: "To examine teachers' perspectives on the role of errors in the teaching of writing in English as a foreign language"; it is shown that teachers see errors not only as an opportunity for the student learning but also as a source of valid information that allows them to anticipate problems and solutions when designing meaningful and relevant classes, based on the failures found in written texts The error role within the teaching-learning process of EFL is seen as important, relevant, primary and vital. By making mistakes, students are given an invaluable opportunity to learn the correct forms of the language, while reflecting on how English works for communicative purposes (Richards and Schmidt, 2002).

Then, to respond to the objective: "To analyze the criteria or factors that influence the teacher when deciding to penalize or not a writing error"; both quantitative and qualitative data from this research show that this decision-making process is many-sided and multidisciplinary. Therefore, the personal notion or concept concerning teaching, learning, and error, the experience as a student (learning by observation), university academic training, professional development, teaching experience, curricular and institutional features combined with the level of English that teachers possess and the time available for correction, are the factors that influence teachers and predict their practices regarding the supply of corrective feedback on texts written by students of EFL in Venezuela.

This finding validates the studies OF Duran and Carrillo (2017), and Saavedra and Espinoza (2018), as they support the idea, as does this research, that there are a significant

number of sources of influence that can exist in the field of the correction of written texts and their effectiveness in improving grammatical accuracy. Most importantly, it is clear that what most influences teachers' decision-making in designing corrective feedback strategies is their notions of teaching-learning a foreign language. We can add how they believe students should acquire English, the role that they, as teachers, and error, as a learning opportunity, play in that process.

In conclusion, this study shows that giving corrective feedback is complex and exhausting, but the value of providing it appropriately and effectively to students is crucial for their learning and the development of their language and writing skills. Understanding how the English language works, planning lessons to meet different learning styles, managing mixed-ability classrooms appropriately, promoting interaction, enhancing students' individual and diverse motivations, and providing efficient and effective feedback, seems like a lot for a teacher, but teaching is an art. It is a job, a way of life, and should be accepted and enjoyed as such. The data collected in this study should be used as a basis for critical reflection on teaching-learning, specifically on the supply of error correction in the writing of EFL.

Regarding the limitations found in that study and the proposals for continuity based on the findings of the study, several important exceptions presumed are considered necessary to indicate. First, due to time constraints, the almost non-existent access to the Internet by most Venezuelan teachers, the location of the respondents (Venezuela) and their availability (most work in several locations at the same time), as well as the location of the researcher (The Netherlands), this project used a convenience sample, so the findings of this study cannot be completely generalized.

Second, due to geography together with more advisable and practical access to the sample, an online questionnaire was used to collect both qualitative and quantitative data. Further studies with documentary evidence (reviewing written texts corrected by teachers), thinking aloud techniques along with interviews to corroborate the information provided by the respondents would be useful and interesting. In this way, it can be corroborated that what teachers say they do is actually what they put into practice in their classrooms, particularly in the written corrective feedback supply.

This research was successful, as it was able to distinguish the sources that mainly influence teachers' beliefs regarding corrective feedback from written texts: academic training, professional development, previous language learning experiences, views on language learning, and teaching, among others. Nevertheless, the findings did not mention anything about how the process of transforming those beliefs or perspectives into teaching practices takes place, nor specifically how their beliefs are modified. It would be interesting to conduct research to describe, evaluate, and determine the process of pedagogical transformation that teachers experience when trying to put their beliefs and perspectives into practice. This can usefully be the subject of further research.

Generally speaking, further research is also needed to determine why, if time is set as an influencing factor in providing written corrective feedback to the writing of EFL, teachers do not use more often peer feedback or self-assessment. The teacher would not have to review and correct all texts, two or three times as indicated by the findings, which would save a lot of time that could be spent on other important aspects of the teaching and learning process of a language. More research is needed regarding the frequency and actual practices of teachers concerning peer feedback or self-revision of errors, as well as their beliefs and perspectives on the usefulness and effectiveness of such feedback.

Finally, education does not end when teachers graduate, but it is a continuous journey that should never stop. It can be assumed the need to provide continuous learning. School authorities in Venezuela must provide up-to-date professional teacher development programs

to meet the needs of educators and, therefore, improve education in this specific context where the study was conducted.

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