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DIDACTIC STRATEGIES TO INCORPORATE UNIVERSAL DESIGN FOR LEARNING IN RURAL SCHOOLS

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Abstract

This article presents the progress in the research project Didactic Strategies to Incorporate Universal Design for Learning in in Rural Schools, developed in the framework of SUE Caribbean Master's Degree in Education, in order to improve the teaching process of eight-graders at El Chiqui Educational Institution (San Bernardo del Viento, Cordoba) with the incorporation of UDL in the English subject. Inscribed in qualitative research and supported by the Action Research method, the design of this participative methodology was developed in two cycles and four work stages: Diagnosis, Planning, Action, and final Analysis-Reflection. The results show some associations with students' discouragement factors in relation to the proposed contents and applied methodologies in the English subject, as well as to

underutilization of available technological and didactic resources. Based on this diagnosis, provisional results of created and participative incorporated educational design are presented, in order to solve identified socio-educational deficiencies.

Keywords: Universal Design for Learning, Action Research, inclusive education, teaching strategies.

Introduction

This article presents the progress of the academic proposal ***Didactic Strategies to Incorporate Universal Design for Learning in Rural Schools***, the objective of said research was to design, in a participative way, teaching-learning didactic strategies based on Universal Design for Learning (UDL), to strengthen the educational processes of the English subject of eight-graders at El Chiqui Educational Institution (San Bernardo del Viento, Cordoba).

In terms of the proposal's socio-educational context, it is worth mentioning that the coastal municipality of San Bernardo del Viento has a Multidimensional Poverty Index (MPI, DNP, 2011) with indicators well above national and departmental levels on this matter, given that this population's privation index is of 88.25%, compared with the national MPI (49.6%) and with Cordoba's (79.6%), respectively. This is the context of El Chiqui Educational Institution, a co-education and official institution with approximately 260 students in preschool, elementary and high school levels, and a faculty of 16 teachers in different curriculum areas.

Universal Design for Learning (UDL) is a working framework that provides pedagogical, didactic and socio-affective tools and resources to foster positive teaching and learning conditions that adapt to the context and student's realities, based on their peculiarities and learning needs. This makes it a flexible, active and socio-constructivist curricular design, in which the student is meant to critically and responsibly model and master his/her own learning progress (Golobardes, 2013).

In terms of the academic and socio-educational aspects that led this proposal, the project offered a series of didactic tools, methods and learning activities regarding the topics of the English subject, with an inclusive approach and considering the differences in each individual's pace, aptitude and learning needs. The intention is to bring flexibility to the educational curriculum, turning it into a total instrument that reflects inclusion and provides the chance for each student to find the necessary input and resources to build, adapt and widen his/her knowledge accordingly.

One of the reasons to develop this academic project is that it is considered pertinent to the extent that it seeks to formulate pedagogic alternatives adequate for the socio-economic, cultural and contextual conditions of the eight-graders at El Chiqui Educational Institution, to foster a capacity to assume critical, reflexive and proactive attitudes when dealing with their learning processes. Specifically, the UDL approach led to the development of a pedagogical accompaniment process to help students fulfill their cognitive competences in the English subject, precisely in competence groups related with the communication component, as per the new conceptual and methodological developments of active learning, and in alignment with official educational policies (MEN, 2006); by appropriating technical, technological and didactic resources available in the social and educational environments.

This project is also feasible in terms of need, the diagnosis stage presented results that identified a series of educational problems deriving from inadequate or inflexible establishment of the official educational curriculum, illustrated in the **Results** section of the document herein. This reality makes it impossible to deny a need to rethink the pedagogic and curricular constructs implemented so far. This change must be the result of an encompassing, critical and collaborative work.

Regarding the proposal's methodological and scientific contributions, its implementation helps strengthen the academic processes of El Chiqui Educational Institution since the diagnosis observation cycle established that the research problem approach and literature concerning this topic are lacking at local and regional levels. Thus, its implementation contributes to closing a latent research gap, and to encouraging educational research on alternatives to inclusive education in the micro-contexts through Action Research (Kemmis and McTaggart, 1992), (Lopez Gorriz, 1993).

Conceptual Fundamentals

Universal Design for Learning

The concept of Universal Design for Learning is historically supported in the architectural concept of Design for All, which was developed in the United States; in the late 20th century, a group of architects, designers and engineers at North Carolina State University founded the Center for Universal Design with the aim of disseminating their guiding principles among a wide spectrum of design-related disciplines, for products, ICT application and built environments.

Also known as inclusive design or universal accessibility, UDL is a relatively new design paradigm that focuses its actions on highly-accessible product and

environment development for the largest group of people possible, without adapting or redesigning them in any special way (Holm, 2006, quoted by Landa Osorio, 2012). The concept's basic principles may be applied in the evaluation of existing designs and to teach the traits that make products and environments more usable to designers and consumers (Mace, Hardie and Place, 1996), (CAST, 2011).

Universal Design is based on the principles developed by Ron Mace, it is grounded on research from three spheres: basic principles deriving from neuroscience studies; cognitive science of learning (Mace, Hardie and Place, 1996); and principles to understand individual differences and the pedagogy required to face them, as developed by Lev Vygotsky and Harold Bloom.

In terms of the incorporation of UDL in the educational concept, Golobardes (2013) offers exact guidelines to design didactic materials, classroom activities and evaluation methods to encourage inclusive learning, from the starting point of each student's learning diversity. This means UDL works as a guide to design inclusive activities and materials, contemplating differences and offering valid options for all.

James Bryson (2003) states that this emerging model may be considered a philosophy of attitudinal change based on understanding that changes need to take place in terms of the context and not the individual. It refers to an attitude, a way of teaching a population of university students that is becoming more and more diverse. These are strategies that act on objectives, instructional methods, resources, materials and evaluation methods that are accessible for every student (Bryson, 2003), (Eagleton, 2008).

According to Fundacion CAST (2011), the three essential principles to take into account at the moment of undertaking an adaptation of an educational curriculum (intended to achieve pedagogical and socio-affective environments for inclusion) are as follows:

- *Multiple representation means: since students have different ways of perceiving and understanding information, it is important to offer different representations of it.*

- *Multiple expression means: aimed at offering students different ways or means to express their knowledge. There are multiple ways of expressing learning based on manifestations of disability, learning and speaking difficulties, culture, etc.*

- *Multiple commitment means: the degree of commitment towards learning differs among students, and the motivations to learn are plenty and very*

> *personal. The intention is to increase the student's motivation by offering learning situations that incite joint responsibility of his/her training process.*

Manuel Casanova (quoted by Landa Osorio, 2012) affirms that the following are among the generic measures that should be adopted to guarantee equal educational opportunities for the entire population:

> *1) Establishing and applying a mandatory basic curriculum for the entire population to guarantee enough educational quality to lead a dignified life, personally and socially.*
> *2) Curricular and organizational flexibilization to adapt teaching to the environment's needs and the students' characteristics.*
> *3) Autonomy of teaching centers to have the capacity required to develop the adapted curriculum and to opt for the most adequate and facilitating organizational model.*
> *4) Adopting specific measures for students' diversity awareness, when required.*
> *5) Establishing policies to compensate the lack of equality in education for socially underprivileged students.*
> *6) Coordinating work between different administrations, organizations and other entities dedicated to these purposes.*
> *7) Developing global policies to favor exercising the right to equal educational and social opportunities.*

Golobardes (2013) expresses that if all materials were designed to adapt to students' perceptive and understanding needs, everyone would have access to the content without needing curricular adaptation. The fact of offering each person the possibility to express and interact with the material as adequately as possible will increase likelihood of success, thus, advancing towards inclusion for all. Moreover, involving students in curricular design, construction of learning objectives, activities and working materials will encourage commitment and make them liable in their learning process (Golobardes, 2013), (Mace, Hardie and Place, 1996).

Teaching-Learning Strategies

Teaching strategies have been historically analyzed as a complex process that involves diverse tasks and different degrees of responsibility from teachers in effectively transmitting content and proactive attitudes to students (Diaz Barriga, 2005), (Gargallo Lopez, 2006), (Pozo, 1990), (Justicia and Cano, 1993).

Learning strategies have been analyzed from different neuropsychological and educational perspectives, seeing as they are processes inherent to the individual's evolutionary and psychosocial development – which imply different tasks regarding

information acquisition, processing, recovery and transference – (Beltran, 1993), (Justicia and De la Fuente, 2008), (Justicia and Cano, 1993), (Pozo, 1990).

The characterization of learning strategies has been approached by several authors, stressing the concepts of metacognition, metacognitive strategies, support strategies, basic psychological processes, studying skills, and dexterities or habits (Derry and Murphy, 1986, 2011), (Justicia and De la Fuente, 2008), (Weinstein, Acee and Jung, 2011), (Gonzalez Barbera, 2003).

Derry and Murphy (1986, 2011) specify that this learning and thinking capacity operates through a series of skills, strategies, tactics and techniques whose acquisition can be manipulated and enhanced with the mediation of research mechanisms and educational practice to train intellectual skills.

Weinstein, Acee and Jung (2011) assert the existence of widespread consensus on the basic types of learning strategies, as follows: repetition, elaboration, organization, self-regulation and metacognitive. Valle Arias *et al*. (2009) assume cognitive strategies are in charge of codifying, storing and recovering information implied in the study material, typifying among cognitive memorization, organization, selection and elaboration strategies with the aim of adapting cognitive conditions towards meaningful learning in their research.

Justicia and De la Fuente (2008) propose a learning self-regulation model that takes into consideration the context or teaching process as an inducing element for self-regulation from an interactive and interdependent idea of the teaching-learning process, with the mediation of strategies based on the use of ITCs.

These authors present the teaching-learning process as a sequential, interactive and interdependent occurrence, which may better redefine and execute the tasks of each implicated member (teachers and students), in a model that assumes that teaching self-regulation must be inevitably connected to learning regulation and that all interventions must be designed from this mutual relation (Justicia and De la Fuente, 2008).

Methodology

This study follows qualitative research, it tries to understand and analyze the immediate social reality in order to comprehend participants' perspective (Hernandez Sampieri, Fernandez Collado and Baptista, 2007).

Universal Design for Learning is understood as a working model that is essentially qualitative, didactic and differentiating, with an approach based on nature, characteristics and diversity of each student's learning in order to provide a choice suited for his/her educational tastes, aptitudes and needs (CAST, 2011), (Eagleton, 2008). As expressed by Hernandez Sampieri, Fernandez and Baptista (2010, p. 10), this qualitative methodology entails "*the peculiarities of individuals or groups under investigation, based on the phenomena surrounding them"*, going deeper into their experiences, perspectives, opinions and meanings.

The proposed research method is Action Research, a methodology that combines the interrelation of research and actions with social communities' participation to offer a transformation of their living conditions (Holly, 1986). From Wilfred Carr's (1998) pragmatic and conceptual Action Research perspective, it is not to be understood as a process of transformation of the faculty's individual practices, but as a social change that is collectively tackled.

Specifically, the incorporation of multiple representation (teaching), expression (learning) and commitment (evaluation) means was proposed to determine the relevant curricular aspects of the English subject in the eighth grade: this materialized in an agreement of learning objectives, new communicative didactics-based strategies to structure the class and the way in which the content is presented, different activities and individual and group techniques, for orientation, presentation and evaluation of each academic session in the classroom and laboratory, and for time distribution. Similarly, regarding study document format and academic activities, it was observed that the students had to present workshops, concept maps and oral and written tests throughout the course of the subject.

The participants engaged in this project were high school students of El Chiqui Educational Institution in San Bernardo del Viento, which has a total of 160 students. The population includes children and teens with typical identity traits of the Colombian Caribbean coast rural culture, in the lowest socio-economical level and who have limited access to libraries, news and cultural publications, and to current educational and training resources to complement their learning and teaching processes. The focus group of students that participated in the research was the entire eighth grade, 15 students of both genders, aged 13-17; the sampling criteria was based on convenience.

The research instruments and techniques built and/or adapted for project design were: semi-structured interviews with teachers, students and parents, both in the diagnosis and in the final evaluation; student's learning profile test; analytical evaluation rubrics; SWOT matrix; field journal and compilation of photographic and audiovisual evidence. All of this with the purpose of strengthening didactic strategies' planning based on the representation, expression and commitment means enunciated by UDL.

These research instruments were developed and analyzed in the 2014-2015 academic terms; the analysis of the information collected was conducted using methodological triangulation in the Atlas.TI software, which led to the identification of interrelations between analysis categories: UDL, teaching-learning strategies, and between those and the aspects deriving from the interviews (diagnosis and evaluation).

The interviews were oriented towards establishing a diagnosis on perceptions, needs, opinions and feelings concerning the most relevant academic problems of the rural school. Thus, two semi-structured interview formats were designed and applied to students and teachers of the eighth grade at El Chiqui Educational Institution. The aim of the students' interview was to get to know and analyze their acceptance of the teaching-learning processes, their relationships with teachers and the educational context, resources, pedagogic media and methods currently offered, as well as of their attitudes and expectations regarding the newly proposed educational design, its development and results.

Structurally, interview design involved 15 multiple-choice questions with single and multiple answers and explained answers. Information analysis using Atlas.TI helped evince students' perceptions regarding their learning strategies and teachers' teaching strategies, correlating both categories with the answers provided.

The interview of the Institution's teachers was oriented towards their methodologies and teaching styles, and attitudes and expectations felt for this process based on obtained results; likewise, it aimed at finding the pertinence of developing a didactic strategy grounded on UDL with diverse representation, expression and commitment means in the curriculum. This required a set of 14 multiple-choice questions with single and multiple answers and explained answers. The Atlas.TI software allowed establishing valuable correlations between the categories and the answers provided.

The SWOT matrix analyzed the intersubjective relations impacting the socio-educational context under study. In that sense, a co-researcher teacher and student commission was set up in the planning stage to conduct a second independent diagnosis about the Institution's relevant socio-economic phenomenon (actor/factor relations). The SWOT matrix (strengths, weaknesses, opportunities, threats) was

applied in the analysis of the main characteristics of said educational community. The results of the collected information were cross-referenced using Atlas.TI. with the following analysis categories: UDL, didactic teaching-learning strategies. The purpose was to have a wider and more precise view of the actor/factor relations influencing this socio-educational context.

The learning profile test (Felder Test) of the eight-graders consisted of a series of questions and requirements about their learning ways, methods and attitudes, according to the Test's psychometric parameters. In order to code and interpret this instrument's data, each individual's dimensions concerning strengths/weaknesses and preferences/interests were correlated to identify and boost the most adequate learning styles, as per the required educational goals.

The research design was thought to be executed based on the two cycles defined in Action Research's four work stages: Diagnosis, Planning, Action and Final Analysis-Reflection. The Diagnosis stage identified the research's problem concerning the factors affecting the correct development of the teaching-learning process in the eighth grade, for which the interview instrument and observation technique were used.

The Planning stage was meant to plan (using Action Research) the most pertinent type of intervention to solve this problem, connecting all the members within the educational community (administrative staff, teachers and students). In this stage, the tools, applications and pedagogical, technological and didactic tools to be developed were selected. UDL's design aspects and elements interfering the educational intervention to reinforce cognitive competences in the English subject were also discussed in this stage. Meaning, the representation, expression and commitment means selected to be applied in the students' focus group, according to the participants' psycho-educational needs and characteristics. Research techniques, instruments, roles, resources and input were tailored as well.

In the Action stage, workshops, activities and pedagogic intervention processes were developed, as per the agreed teaching- learning strategies; the proposal was adjusted as appropriate, given Action Research's cyclical and feedback nature (Fals Borda, 2005). Following Diaz Barriga's (2005) formulation, the following **teaching** strategies were implemented in this stage: audio and video, illustrations, alternate questions and pedagogical portfolios – which were developed in workshop-classes and evaluative individual or group workshops. In terms of the developed **learning** strategies: graphic and iconic communication strategies, oral and written expressions, application of models to interpret situations, concept organization, mind maps and motivational strategies.

Finally, in the Final Analysis-Reflection stage, the project's results analysis took place based on the evolution showed by the eight-graders in the cognitive and socio-affective aspects that are the object of the intervention. As it is known, in Action Research these results are reached collectively, with the participation of all the subjects.

Results

The Project to incorporate Universal Design for Learning in the curriculum of the eighth grade's English subject – by the end of 2015 – was in the Action stage, meaning, in the implementation of the didactic strategies agreed with the participating educational community. The following are the accomplishments achieved as of that moment in the cycles corresponding to the project's observation, planning and action.

In the Diagnosis stage, the application of the observation technique and the semi-structured interview tool led to the factors that affect educational teaching-learning processes the most for eight-graders in the Educational Institution El Chiqui, which are specifically associated with obvious student discouragement with the content and methodology being offered. In the discussion and agreement spaces opened up in the Diagnosis, the students, overall, recognized that they study for the subjects in their school level, however, they admitted they were unsatisfied with some of those subjects, this is the reason why when some students lack connection (with a subject or a teacher) they fail to pay attention to that specific area.

This result is considered highly significant, to the extent that it provided some evidence about obvious discouragement with the methods and teaching styles used in the school. Some evidence corroborates the fact that, in this peripheric and rural educational and socio-cultural contexts, conditions are very limited in terms of administrative, pedagogical and technological resources being offered to enhance the development of socio-educational dynamics that are adequate and pertinent to each individual's cognitive need.

Moreover, based on the results of the applied instruments, the members of the participant group identified some pedagogical practices in which the available technological and didactic resources are underutilized, fail to provide interaction and are not included in the learning strategies planning.

The initial Diagnosis' observation (with the semi-structured interview) and the help of informal talks, led the teachers to admit to having a notion of how to use ICTs, but also to having a lack of knowledge in terms of how to use it and incorporate it in the teaching-learning processes. This identified the need to plan educational activities

that (based on the pedagogic and didactic possibilities offered by UDL) promote the use of ICTs in and out of the classroom with educational, ludic and training purposes. For the specific case of this proposal, said technological support must translate in a significant mediation of responsible and pertinent self-construction of knowledge by each individual.

The Felder Test (learning styles) identified a series of factors associated with the way in which individuals process information perception, processing, understanding and representation. The strengths of eight-graders evinced in this Test are as follows: they were good at decoding and referencing activities connected with written and spoken language; they were familiar with several language typologies; had acceptable reading skills; positive recognition and coding of words; and observation skills. Their affective strengths favored practical and unstructured activities; activities that implied personal challenges; teamwork over individual work (they are excellent collaborators); and interest in content (need to be active through physical and kinesthetic exercises, and tendency to use computers and multimedia material).

The weaknesses showed by the students had to do with: lack of vocabulary; lack of knowledge of the content; difficulties to give oral presentations due to speech limitations such as dyslexia and stuttering; and problems taking notes. In terms of behavior: anxiety; tendency to create disturbances in certain settings; boredom when studying; giving up easily in the face of more complex academic challenges. In terms of the students' preferences: collaborative-related activities; use of texts with written instructions; use of images and charts; and use of ICTs in learning areas.

The results of the SWOT matrix were as follows: **W**eaknesses: lack of interest towards studying, lack of attention in class and in test preparation. **O**pportunities: few students per classroom, possibility of having professional teachers and professors, school restaurant and academic gratuity are offered. **S**trengths: spontaneity, receptiveness, collaborative spirit and punctuality. **T**hreats: academic desertion, lack of long-term (future) vision, old students for the eighth grade. These results were cross-referenced in Atlas.TI with the analysis categories: UDL, teaching and learning didactic strategies.

Based on these results of the Diagnosis stage and in the face of the Planning stage, the research topic or idea was selected to set the proposed educational project in motion. Planning and developing a group workshop, eight-graders were given the choice to jointly build a classroom project selecting the school problems or topics that were more attractive to them. After brainstorming, the topics of interest for the participants were selected (from a socio-educational point of view), as follows:

1. *Using communication means to improve coexistence at the Educational Institution El Chiqui.*
2. *Project to develop Citizen Competences in the classroom.*
3. *Strengthening Working Competences in the classroom.*
4. *Using educational technologies and other didactic resources to strengthen and complement the curriculum.*

This last topic was unanimously selected and it was based on each participating students' written argumentation. Afterwards (in the same working session) the class was divided into groups of four students in order conduct the pedagogic activity to agree on the proposed classroom project's development.

Brainstorming in each of these four groups also helped students to contribute their criteria regarding the way in which the selected project should develop with end-to-end logical and organized steps and draft the list of input and resources they needed to develop the project, which implied several technological resources (computers, tablets, video beams), didactic resources (graphs, maps, flip charts) and other resources to achieve their goal. The last stage was group socialization of the agreed classroom project.

In the face of the proposed social and educational outlook, it is considered that UDL's didactic strategies may promote the establishment of a socio-educational environment that benefits a transformation of participants' attitudes towards the assumption of their teaching- learning processes. These ideas take into account that inclusive education is a change possibility among the individuals, to the extent that its differentiating approach may lead to profound reflection of their reality, relationships, traits, interests and peculiarities, and to the way in which teachers and students assume the teaching-learning process (Mace, 1998, Burgstahler, 2008).

Regarding the partial results of the Action stage, it is worth mentioning that the teaching strategies applied in the English subject were planned for the classroom and the Institution's computer lab, thus streamlining the use of technological resources. Its planning also considered the results of co-researcher students and teachers' perceptions on systematization, interpretation and SWOT analysis in the Atlas.TI software. The didactic strategies used in the classes-workshops and evaluating workshops were: audio, video, illustrations, alternate questions and pedagogical portfolios.

It should be mentioned that in order for teaching-learning strategies to have a pedagogical effect as positive as possible, each class' development was divided. The implementation of the teaching didactic strategies in the English subject

proceeded by dividing each class' working session into five Class Moments, based on the planned and agreed activities, didactic resources, input and procedures.

Learning didactic strategies focused on UDL's main principles, which formulate several expression means to offer the student the possibility to express his/her learning in function of the individual's potential, characteristics, capacities and skills. Development of the aforementioned strategies took place in group workshops evidenced in each Class Moment using prepared technological and didactic resources and materials.

Likewise, participative spaces were opened for each member to contribute opinions on topics, methods and activities to develop, based on the recommendations of Derry and Murphy (1986), who state that inclusive education is oriented towards boosting learning and thinking capacities by encouraging a series of skills, strategies, tactics and techniques that may be manipulated and enhanced using mechanisms offered by educational research and practice.

Other valuable results of the evaluative aspect of the implementation of UDL in the curriculum of the English subject were obtained by applying evaluation analytical rubrics. The purpose of this instrument was to comprehensively evaluate participating students' performance in the project, to obtain a detailed valuation of their learning processes and socio-educational attitudes towards the subject. Despite the project's participative nature, these evaluations have been adapted to give preference to intersubjective participation and feedback by the group's members in aspects that show greatest weaknesses.

The findings of the evaluation analytical rubrics were interesting in terms of the progress made by the eight-graders and in connection with performance exhibited by the focus group individuals when conducting different academic activities proposed in the project's development. This way, performance evidenced by the students in the appropriation of cognitive, working and citizen competences achieved the following weighted averages for the English subject: the average based on application and calculation of self-evaluation rubrics was of 440.5; the average of hetero-evaluation rubrics was of 406.4; and the average of joint evaluation was of 401.4. This means the self-evaluation rubrics had the highest average for the 15 participants in the project, to the extent that the lowest weighted average was for the application of joint evaluation rubrics.

Given that the rubrics intended to evaluate participant students' performance in their learning processes and socio-educational attitudes, Martinez Figuiera, Tellado Gonzalez and Raposo Rivas's formulation (2013) was confirmed in the sense that using rubrics is beneficial not only for a more systematized evaluation by the teacher,

but as an extremely valuable tool for competences such as monitoring, self-evaluation and peer evaluation.

Also, groups and commissions of participant teachers and students of the eighth grade were assembled in this strategy's development results with the aim of incorporating a UDL-based didactic strategy. Departing from Active Research's guidelines, these groups received specific goals and topics for the eighth grade's English curriculum. The structure of these working groups considered psycho-educational and socio-affective profiles, as well as affinities with topics of interest. Some ludic techniques have also been incorporated based on granting incentives to students in order to motivate competitiveness in curricular aspects achieved in their cognitive, citizen and working competences.

Moreover, the results item includes a project evaluation by the participants' parents, it was conducted following an interview format and informal talks with the research unit. These spaces allowed to get to know their opinions about their children's school and assess the purposes, scope and results of this project from their point of view.

Regarding the school's socio-educational aspect, overall, parents feel satisfied with how directors and teachers at El Chiqui Educational Institution have communicated with them, they believe parents have been given the opportunity to discuss their children's progress. This strategy's development has also emphasized on providing enough and timely information about events, activities, exam dates, workshops, resources and everything concerning their children's education.

In terms of the students' socio-educational aspect, overall, parents have mentioned that their most recurrent concerns in their children's education has to do with a lack of education in values, lack of time dedicated to studying, lack of communication at home, and with the channels of problem-solving at academic and interpersonal level.

However, it is important to mention that the motivational talks with parents tried to entice open dialog with their children regarding academic and/or personal problems taking place in school, with the purpose of tightening the bond of the members of the community, joining efforts towards common goals of aiding in comprehensive training and education.

The interviews and informal talks held with parents acknowledged the positive evolution of the students participating in the project, to the extent that they were able to observe some positive changes in their children's study habits and attitudes: more motivation doing assigned homework and tasks, punctuality attending extracurricular workshops and more cohesion among classmates, since all activities are planned based on collaborative work techniques and statements.

Discussion

Contrasting the results so far in the development of this educational project with existing theoretical formulations, it can be said that, firstly, providing the students with the chance of getting involved in planning the research topics has been a key factor in their motivation. Their role as research cooperators has led them to participate in problem identification, and to propose the development of strategies, activities, materials and educational resources in accordance with their learning realities, needs, interests and objectives, to solve said problems. This concurs with Golobardes' (2103) formulations in the sense that involving students with the design, objectives, materials and curricular activities will encourage them and make them liable for their own learning process, taking a step towards inclusion for all. This result also comes close to the autonomy ideal of educational centers, so as to have the capacity to develop the adapted curriculum and to opt for the most adequate and most facilitating organizational model (Landa Osorio, 2012).

Other results obtained in the Observation stage evince that the factors with the highest incidence over the correct development of teaching-learning processes are associated to student discouragement regarding content and methodologies, students have claimed to dislike some of the subjects, mostly because of methods, styles and resources offered.

Therefore, the conditions and resources to benefit the development of socio-educational dynamics that are adequate and pertinent to their cognitive needs must be streamlined and adjusted to achieve appropriate results in students' academic performance and interest. This fact agrees with Golobardes (2013) on design adaptability of all learning material depending on students' perceptive and comprehension needs to facilitate accessibility to content without undertaking major curricular changes. Likewise, and according to Bryson (2003), UDL is based on strategies that affect objectives, instructional methods, resources, materials and evaluation forms, accessible for all students.

In terms of the diagnosis of the teachers' pedagogical practices, it is oriented towards acknowledging a lack of awareness concerning the incidence of didactic and technological tools in today's social and cultural environment, as well as of its facilitating nature in the teaching-learning process.

The need to plan educational activities based on the use of ICTs with educational, ludic and training purposes aimed at making each individual liable for his/her knowledge, is connected with Casanova's research (cited by Landa, 2012), in which curricular and organizational flexibility must be in place to guarantee equal educational opportunities, in order to adapt teaching to the environment's needs and

students' characteristics. Coinciding with the methodological proposals of Ronald Mace (1996) apropos the need to understand individual differences and adjust pedagogical suppositions to face new educational methods and materials in the classroom, which tend to transform students' attitudes.

It is also important to add that the partial results of the Action stage, obtained by applying analytical evaluation rubrics, showed an enhancement in knowledge, comprehension and practice of new learning strategies, mostly based on using tools such as slides, concept maps, illustrations, oral and written techniques (presentations, summaries) and school portfolio. In this didactic process, students' metacognition has manifested in getting to know the educational purposes, possibilities and advantages of each tool on educational and social growth. This transformation – expressed in the generation of multiple expression means by students – is in line with the content of Fundacion CAST's document (2011), which states that students must be offered different means to be able to express their knowledge. Or as Golobardes (2013) puts it, adequate guidelines must be considered in didactic material design, classroom activities and evaluation methods that stem from students' learning diversity, since they have a functionality in the design of inclusive material and activities.

It is also worth mentioning that the eighth-grade students, teachers and parents commission to favor concertation, planning and incorporation of UDL-based didactic strategies yielded the expected results, each activity conducted in the two Action Research cycles evidenced the developed participative work. According to Kemmis y McTaggart (1992), this is one of the key goals of Action Research: improving and understanding the logic and justice of social or educational practices to foster a process that leads to social, collective and inclusive change.

Likewise, it is considered that the incorporation of ludic evaluation techniques to motivate students granting points per achievements and progress made throughout the English subject activities, has motivated curricular competitiveness. This innovative aspect concerning the subject's evaluation agrees with the essential statements of the Fundacion CAST's document (2011), which affirms that diversity in learning motivations is manifold and very personal, therefore, the ambition to increase the student's motivation (offering new learning situations to generate joint responsibility in his/her training process) is critical to reach pedagogical and socio-affective environments that promote inclusion, given each individual's diversity in commitment degree towards learning.

Conclusions

It was concluded that the factors associated to the eighth grade's affectation of teaching-learning processes at Educational Institution El Chiqui are primarily: students' discouragement with the traditional curriculum content and methodology; underutilization of the available technological and didactic resources; and lack of organization or scarcity of strategies to deal with content and learning tools of the focus group (evident in the lack of preestablished order to drive meaningful learning that is applicable in practical life).

It was also determined that the implementation of teaching-learning didactic strategies, planned with UDL's multiple representation and expression means, were aimed at offering diverse activities, tools, learning materials and evaluation methods to motivate students to develop their English communicative competences, depending on their capacities.

Applying analytical evaluation rubrics led to an evidence or meaningful progress in the appropriation of cognitive, working and citizen competences, compared with the existing situation prior to the implementation of the didactic strategies.

Therefore, it was concluded that the proposed UDL-based inclusive approach may foster an efficient transformation of participating individuals' attitudes, given its flexible and differentiating nature. In the future, these methodological guidelines should engage participants in the quest for opportunities to interact with the English subject's content, providing the necessary input for students to fully undertake the learning process considering their capacity to choose, their cognitive, social and personal opportunities, and the support of the faculty and the research unit.

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