



Analysis of oral expression, fluency and reading comprehension in a student with intellectual disabilities: a case study.


Rocío Anahí Vásquez Diego

Escuela Normal de Educación Especial
 <https://orcid.org/0000-0001-6955-7681>
Correo electrónico: anahyv346@gmail.com
Oaxaca, México

Flor de María Moreno Luna

Universidad Popular Autónoma del Estado de Puebla
Escuela Normal de Educación Especial
 <https://orcid.org/0000-0001-9158-2453>
Correo electrónico: florlduna16@gmail.com
Oaxaca, México

Reynaldo Hernández Díaz

Universidad Iberoamericana
Escuela Normal de Educación Especial
 <https://orcid.org/0000-0002-8597-6496>
Correo electrónico: freyahuive@gmail.com

Received: 16/04/2021

Accepted: 26/05/2021

How to cite this article:

Vasquez, R.A., M., F.M., y Hernández, R. (2021) Analysis of oral expression, fluency and reading comprehension in a student with intellectual disabilities: a case study. *Espiral, Revista de Docencia e Investigación*. 11(1) pp. 163 - 182.

Summary

The purpose of this article is to analyze the process and scope of the factors on reading such as oral expression, fluency and reading comprehension in a sixth-grade student with intellectual disability who receives attention in the USAER¹. The implemented strategy of pedagogical intervention was carried out in the city of Oaxaca, through instruction manuals with a cognitive vision, considering that the comprehension and fluency of a text requires the development of thinking in optical, perceptual, syntactic and meaning aspects. The methodological structure was taken from the perspective of the case study proposed by Stake (1999), by combining all the observable elements in the breadth of the case and carrying out a qualitative investigation in the collection of data through the application of field instruments. For the breadth and depth of the case, the pillars of observation, reflection, planning, action and evaluation were retaken to cohere these elements and understand the particularity of the case-study. Results were obtained through triangulation of the guidelines provided by the teachers involved for the breakdown of the objectives achieved.

Keywords: case study, reading comprehension and fluency, intellectual disability, instruction manuals.

Introduction

Sharpening Special Education in Mexico means highlighting educational opportunities for children and adolescents who require it. Within the framework of legality, there are documents that certify and endorse this education such as the General Law on the Rights of Children and Adolescents (2018), The Political Constitution of the United Mexican States (2018) and The General Law of Education (2018), to name a few. The breadth in each of these documents modifies the educational vision and shows the primary considerations of the teaching task by manifesting requirements of techniques, materials, methods and responsibilities that define special education as mentioned in Article 41 of the General Law of Education (2018).

Special education is aimed at people with disabilities, whether temporary or permanent, as well as those with outstanding abilities. It will attend to students in a manner appropriate to their own conditions, with inclusive social equity

1 Regular School Support Service Unit ("Unidad de Servicio de Apoyo a la Escuela Regular" in the Spanish original)

and a gender perspective. In the case of minors with disabilities, this education will promote their integration into regular education institutions, through the application of specific technical methods and materials (p.37).

This is why special education is an interdisciplinary field committed to defying every academic challenge in the classroom. Often, the diversity of students makes educational intervention complex in the services of both the Regular Education Support Service Units (USAER) or the Multiple Attention Centers (CAM). Each of these special education modalities are focused on the detection, monitoring and improvement of students with disabilities, outstanding abilities or severe difficulties.

In this sense, the purpose of this article is to share, reflect and analyze the teaching-learning process in the field of special education by designing, implementing and evaluating a didactic proposal. This educational dynamic happened through the intervention of a sixth-grade student with mild intellectual disability who receives attention in the USAER. The process of attention that the minor had in the areas of pedagogy, language, psychopedagogy and social work guided the process.

The student was observed in his school and classroom context, which allowed for a narrative of the particularities of the case through the teacher's work diary. When the descriptions were reflected upon, an educational situation to be improved was analyzed: reading. Since this represents a basic learning need and considering that the student was in his last year of primary school and from the competences and skills that are framed in basic education, he should be able to locate relevant information in different texts to become a critical and reflective citizen regarding the demands of society.

Due to the breadth of the field of reading, a vertical line was drawn, taking up the following aspects: oral expression, reading fluency and

reading comprehension. At the same time, the following research question was explored in depth: what can be done so that a student with intellectual disabilities can favor reading processes such as oral expression, reading fluency and reading comprehension? With this, a didactic proposal was planned in order to favor these lines of reading through the instruction manuals using a cognitive approach.

For the structuring of the research, case study was used as a research methodology to decipher the internal characteristics of the case and the context in which it occurs. According to the methodology, the applied technique was the observation, by studying the case in its breadth and depth through the extended diary register and the application of field instruments with the breakdown of qualitative information.

The substance of reading at the end of elementary school

Reading is an act valued as the ability to decipher, interpret and understand the findings of a series of information presented in written form through linguistic signs. The words presented endow a meaning rooted in the knowledge that the reader possesses for its translation. The need and ability to make this cognitive process forms its channel in the abstraction of the information presented visually to evaluate it and subtract what is necessary to make the collective union with the knowledge possessed and use it in the path of a personal need in different areas.

This form of learning is taken up as a habit that develops greater concentration and attention to the diversity of information that exists in digital platforms such as manuals. In order to perform a reflective reading and focus interest, the innate ability to read is developed in the foreground. Reading is understood as a mechanism that decodes words by the correspondence between sound and letter. It usually starts with an abstract sense without

actually inferring the information, but it is through interest, constancy and permanence that the reader interacts with the text by understanding and interpreting it and reaching the culmination of a meaning of his own as mentioned by Añón, Bargueño, Barredo and Nuere (2010).

Reading is a dialectical process between a text and a reader, a process in which the reader brings his emotional and affective disposition, his purposes, his experience, his knowledge of the world and the subject, and it is this contribution, in interaction with the characteristics and properties of the text -its genre, structure, information density, coherence, cohesion...- that allows that reader to understand, to construct a meaning about this text (p. 18).

Within the educational environment, the process of reading begins with the child's curiosity as he/she becomes involved in the use and recognition of letters, words and phrases. As time goes by, reading becomes structured in a way that allows the child to respond to the demands of daily life in and out of school. The child finds meaning in reading by inferring the power it gives him or her in obtaining, manipulating and communicating information. This ability to read extends to producing an analytical and critical reading that is able to comprehend information in order to avoid the accumulation of memorized information and thus to transform thinking.

At elementary-school level, we seek to recreate spaces where students have permanent contact with reading. The interaction produced in the action of reading is favorable for students by increasing their strategies on the search for specific information in any text. As reading becomes a habit, a better analysis is pursued by making deductions and inferences that provide understanding of what is read. Working on this activity in the classroom implies that teachers should embrace it as something natural and pleasurable by giving each reading a purpose and by seeking the children's own interests

so that the texts are attractive and meet their needs.

In the sixth grade of elementary school, all the skills acquired throughout each school cycle are reinforced for the continuity of the reading exercise. The dynamics of reading and the knowledge that is subtracted are reinforced and unified with the cultural baggage that is possessed, which is why reading "...is the basis of lifelong learning, where reading for comprehension is privileged, and is necessary for the search, management, reflection and use of information..." (Curriculum 2011, p. 44). In this way, the reflective exercise that students carry out individually or as a group about the information they require will help open their minds in an autonomous and effective way before an audience.

In this sense, and based on the 2011 sixth-grade curriculum in force in Mexico, it is considered that reading should be a daily and pleasurable activity for students. For this reason, we try to increase their vocabulary and understanding of written language, relating the content to their previous knowledge according to their experiences. As a goal, reading should be encouraged, beginning with the simple action of reading by identifying letters and words.

Intellectual disability immersed in reading comprehension

Reading comprehension is defined as a quality that arises when reading a text. Comprehension is reached when what is read is understandable by the knowledge and tools that one possesses. The translation that is given to the meaning of the text is visualized from different angles with certain ideas. When focusing the gaze on any type of text is because there is an intention, purpose and interest to know and fill a gap of personal information. At the moment that a need is covered, that a judgment is issued with solid arguments

and the analysis and mental interpretation is achieved, through the concatenation of the information, it can be said that what was read has been understood.

In this sense, to understand information is to focus attention on the mental construct, considered as the human capacity to evaluate and grasp information. This process has its relevance in the causal theory of mind. From the cognitive paradigm and according to Hernández Rojas (1998), the causal theory of the mind not only refers to the intellectual level, but also pays attention to behaviors and emotions. That is why, when speaking of mental representations, reference is also made to the forms of activity that the subject performs.

When internal processes are carried out, the subject is called an active agent, so certain cognitive skills are required as mentioned by Madrazo, Díaz, Barbeytto, Triujeque, and Aviña M. (2014) when referring that the comprehension of a text "...implies that, as readers, we grasp, assimilate and are able to explain the meaning of the central and relevant ideas of the text, by relating them to the ideas and concepts of which we already have previous meanings..." (p. 32), that is, a reader must assimilate what he or she reads by coherently linking what he or she picks up with what he or she knows and thus form new schemas.

When we talk about schemas, we are referring to the blocks of knowledge that are obtained according to the information that is possessed. However, Carril and Caparros (2006) mentioned that the reader "...interprets the message according to the previous personal experience, the cultural and personal baggage that each reader brings, [...] establishing valuations and judgments that shape a new knowledge." (p. 16), this being said, it seems that according to the experience that an individual has, he conditions his own understanding and directs it towards new meanings.

All knowledge schemas are processed in three internal spheres of memory. The first filter is done through sensory memory, when the person collects information from the senses (visual, tactile, auditory, gustatory and olfactory) by rescuing significant elements. Once recorded, it is transferred to the short-term memory to analyze the processes of encoding, recovery and forgetting. Finally, the encoded and organized information enters the long-term memory and generates a response. These three elements intervene in an interactive and operative way in the organization of experiences.

As reading comprehension is a cognitive skill, it is said that it is the basis for learning, that is, if there is no comprehension there is no learning. That said, Solé (2012) mentioned that "...when a reader understands what he reads, he is learning, to the extent that his reading informs him, allows him to approach an author's world of meanings and offers him new perspectives or opinions on certain aspects..." (p. 39), thus engaging new unintended interests according to the reason why he/she reads, creating an active reader as mentioned by Solé (2012).

Comprehension implies the presence of an active reader who processes the information he/she reads, relating it to what he/she already has and modifying it as a consequence of his/her activity [...] we must not lose sight of the fact that when we read to learn, we set in motion a series of strategies whose function is to ensure this objective (p. 39).

When analyzing other definitions, we find that of Smith (2015), who pointed out terms about reading comprehension. He highlights that "Nonvisual information, long-term memory, and prior knowledge are alternative terms to describe the cognitive structure [...] that is the source of all comprehension. The basis of understanding is prediction." (pp. 79-80). Based on this, non-visual information is considered to be all that information brought by the reader, which describes the cognitive structure, i.e. memories with meaning. Prediction according

to Smith (2015) is considered as the elimination of alternatives. When predicting, questions are formulated, which must have answers so that in this way understanding is given.

The references given for reading comprehension focus on a cognitive activity that compacts intellectual capacities. This intellectual capacity is realized by the mental stimulation that an individual develops. As a result of this, demanding any educational activity from students requires mental exercise by involving cognitive skills focused on any discipline.

With the progress generated in the educational environment, educational perspectives and demands generate greater importance in the professional preparation of students. By accepting that reading comprehension is a vital tool for learning, the look is declined in the field of special education to address the attention of students

with intellectual disabilities. This disability is conceived as mental deficiency and limitations in adaptive behavior, according to the American Association on Intellectual Developmental Disabilities (2011).

Intellectual disability is characterized by significant limitations in both intellectual functioning and adaptive behavior as manifested in adaptive, conceptual, social, and practical skills. This disability originates before the age of 18 (p. 31).

This definition frames the main areas of affectation during personal and social development. Therefore, and from the document "DMS-5: Novelty and Diagnostic Criteria" (2013), it includes intellectual disability within developmental disorders by emphasizing intellectual and adaptive level. Among the characteristics that are considered affected at the intellectual level is mainly reasoning, language and thinking for the development of various activities.



Deficits in intellectual functioning, such as reasoning, problem solving, planning, abstract thinking, decision making, academic learning, and experiential learning, confirmed by clinical assessments through individually administered standardized intelligence tests (p. 6).

Derived from this, Wiesner (2004), considers that the intellect affected in a person with intellectual disability is the Intellectual Coefficient (IQ). In this sense, according to this author, we talk about those aspects in which a person with intellectual disability may have difficulty in the acquisition and consolidation of reading, writing, body schema, the notion of number, among others.

The characteristics that a student with intellectual disabilities assumes at a cognitive level generate a challenge at the moment of entering the world of knowledge and therefore understanding the information. While reading comprehension is the basis for the acquisition of knowledge through the cyclical mechanics of mental work, it is for that reason, that the mental work that the people with intellectual disabilities do is exercised by adaptable mechanisms so that the approach of the information is the clearest possible. In this sense, disability is not an impediment to understanding, since techniques, strategies, methods that favor the intellectual capacity of the student are sought.

Methodology

The present research is located within Stake's (1999) case study methodology, by taking up that "...the case study is the study of the particularity and complexity of a singular case, in order to come to understand its activity in important circumstances." (p. 11). The vision of this methodology entails a disciplined way of approaching the complexity of the case in a particular way, that is, focusing on every detail of interaction that the case offers within its contexts.

When projecting with clarity the globality of the case, a qualitative method was used with the commitment to interpret, organize and systematize in a professional way the use of the collected information. The opening of the qualitative obeys to the personal actions that the investigators carry out with the objective of being present in the field work and to make observations for its later analysis. This qualitative inquiry receives a holistic treatment by meaningfully addressing all the components of the case in an extensive way through subjective judgments, stories, sketches and explanations given to the reader in a chronological way.

For the realization of each phase of intervention, four pillars were postulated: observation, reflection, planning, action and evaluation. In the observation process, the student with intellectual disabilities was placed as a whole for study. The look was focused on each of the qualities that contributed to the case and that were similar to the real conditions of the study. The breakdown of the information was detailed anecdotally in the teacher's work diary for later analysis and reflection; within the case study, this point is outstanding when considering that the researcher carries out activities aimed at the total understanding of the case.

When all the information was obtained, the third pillar was planning. At this point, the educational situation to be improved, the strategy, the method and the methodology that directed the didactic proposal to favor oral expression and reading fluency and comprehension in the student were determined. Subsequently, the proposal was applied and evaluated by means of instruments such as checklists and rubrics. Each of these pillars was carried out at the end of each phase of intervention in a cyclical manner. For these reasons, a brief contextualization of the areas in which the student develops is presented first, followed by the approach of the didactic

proposal to conclude with the evaluation and the results.

Analysis and reflection of teaching practice

The educational intervention was carried out in an elementary school located in the community of Dolores. This community originates in the region of the central valleys and belongs to the municipality of Oaxaca de Juárez. There are plenty of grocery stores, stationery stores, paint shops and miscellaneous stores. Along the streets of Dolores, there are houses with particular characteristics, mainly of infrastructure. Some of them have internet and pay TV antennas that provide access to more information.

Upon arriving at the Dolores agency, one senses a warm working atmosphere among the different people who work there. This agency has free internet access, a library, computer room, bathrooms, multipurpose room, community dining room and sports courts. It is in this community where the "Rafael Ramírez Castañeda" Urban Morning Elementary School is located, with more than 30 years of experience.

Within the elementary school "Rafael Ramirez Castañeda", we had contact with the principal of the school, to collect information through an interview script where the following data stood out: The elementary school was founded in 1962, it is located at Avenida Juárez N°4 Agencia de Dolores, with code number 20DPR0315J; its name is in honor of the teacher Rafael Ramirez, who was a Mexican educator dedicated to the study and development of rural education in Mexico.

As you follow the path inside the elementary school, you will find the psychology room, the storage room, the principal's office, and the computer lab which is attached to building one. On the left-hand side is the physical education room, the men's and women's restrooms, the USAER classroom, the library, building two and the courts. The outstanding actions in this institution are the honors to the flag, the

exhibition of works in the civic square and the collective amusement at recess time.

The observable relationships within the educational institution leave as a reflection the different ways of thinking and acting among students and teachers. While students see recess time as a time to have fun and play after pedagogical activities, teachers are more inclined to use the time to rest and make sure that accidents do not occur. Another action is at dismissal time. Students excited to go home show no interest in copying homework, while teachers see it as a formative activity.

The USAER service that the school has is complete, that is, it has the areas of pedagogy, psychology and social work, not to mention the principal and secretary. All this staff forms an interdisciplinary team who works for the benefit of students with Special Educational Needs (SEN), in co-responsibility with parents and group teachers.

Within this USAER², the student with a disability was focused on as a single case. With the application of the interview scripts, the observation guide and the review of the child's file, the following data were obtained. Leonel is a student with a mild intellectual disability. He was born on January 18, 2006. He was referred to the USAER service in third grade of regular elementary school when he was nine years old. When assessed by the interdisciplinary team, he was treated in the areas of pedagogy, psychology, social work and communication and language.

His personal characteristics include a neat appearance, that is, he attends school clean, neat, combed and with his uniform properly ironed. He is 1.60 meters tall, with a round face,

2 From the document "General guidelines for the operation of special education services" (2006), these are the special education services in charge of supporting the educational integration process of female and male students with special educational needs, primarily those associated with disabilities and / or outstanding aptitudes, in the regular education schools of the different educational levels and modalities. These services promote, in conjunction with the school they support, the elimination of barriers that hinder the participation and learning of students, based on a flexible management and organization work, joint work and guidance to teachers, the family and the educational community in general. (p.37).

black hair, long fingers, medium-sized mouth, thin lips, small ears and nose, dark brown slanted eyes, semi-populated eyebrows, light brown complexion and charismatic. He is easy to converse with, however, he needs a certain amount of time to feel confident with people who are new to his social environment.

The student shows significant progress in the content; however, he needs feedback in Spanish and reading comprehension, as this is the means for him to access information. The student shows a greater inclination for basic operations by performing correct procedures and using his own resources such as the use of his fingers to count and the use of multiplication tables, either mentally or in writing.

Framing all this information from the student required understanding the complexity of the elements obtained. The interest of the case was born through the globality of the personal situations that arose within the different contexts: social, school and classroom. Likewise, the time, the objectives and the profitability that the case offered for its study were contemplated.

By making a contribution to the field of special education through the case study, the impact and importance of the methodology employed was reviewed. In this sense, the relativity of the researchers by focusing on a single case provides an indication of the interpretations acquired through observation and application of instruments. This leads to the validity of the information, that is, to collate all data until a meaning is unified as mentioned by Stake (1999).

Researchers use two strategies to reach the meanings of cases: the direct interpretation of individual examples and the aggregation of examples until something can be said about them as a set or class. The case study relies on both methods.

By expanding this research and the different roles of the researchers, the qualitative method was stylized for interpretation and instrument development. According to Stake (1999), qualitative focuses on understanding all that exists through the interpretation of data. Therefore, in educational research, the qualitative researcher prevails, being understood as a reference to exploit and manipulate diverse information through the use of field instruments such as interviews, observation guides and document analysis for the validation of the case.

Taking as references these aspects of the case study with the qualitative method leads to the breakdown of a sustained report. The following narrates the unit of analysis that was carried out to obtain the single case study.

In the course of teaching practice, a single case study was considered to improve an educational situation. Documents that contributed to the elaboration of an observation guide and interview scripts were sought. The literature crawl had its apex in the following: INDEX of Inclusion (2006), the MASEE³ (2011), the General Guidelines for the Operation of Special Education Services (2006), and the Guidelines for the Organization of Academic Work during Seventh and Eighth Semesters (2004).

Within the educational environment, the observations made were significant in obtaining data such as the implication of the teaching practice in the teaching-learning process, the relationships between parents and teachers, the coexistence of students and the peculiarities of the social context. The focus was on each of these dynamics by reflecting on whether the particularities of these facts were repetitive or spontaneous. In this regard Postic and De Ketele (1992), defined the observation technique as the possession of a whole.



To observe is to place oneself before (that is what the prefix <Ob> means) an object, both as a slave (which is the first meaning of the root <serv>) in order to be faithful to it; and as a master in order to possess or keep it (which is the second meaning of the root <serv>). To observe one is to look at him, considering him as an object (p. 17).

As the days went by, an audience was held with people central to the object of study, with the purpose of obtaining information. In these audiences, interview scripts were applied to the following personalities: the principal, in order to know information about the organization and functioning of the primary school; to the mother of the family to collate information about the evolutionary development of the child and the family in particular; finally, to the support and regular classroom teacher with the objective of gathering academic information about the object of the case study.

All the actions that took place day by day were intertwined like a spider's web to open the way for analysis and reflection in a qualitative sense, captured in the DTD⁴. This book took hold of valuable information when considering that "Class diaries [...] are documents in which teachers collect their impressions about what is happening in their classes" (Zabalza, 2004, p.15), to give continuity to the process of an educational intervention.

In the trajectory and amplitude that the case study provided, the following instruments were elaborated. The initial report was produced through the application of the diagnostic test, describing what the student knows how to do and how he/she does it, that is, his/her curricular competence. The psycho-pedagogical evaluation report was based on the collection of information on the reports of each of the participants (pedagogy, psychology, language and social work areas), that is, its elaboration

has an interdisciplinary character, as mentioned by Bonals and Sanchez (2007).

It is developed in collaboration with all the participants in the process: the students, the family, the educational center, other professionals, etc. From the point of view of the latter, it has an interdisciplinary character, with the contributions of each one's own competence. We speak of collecting relevant information, because in a psycho-pedagogical assessment situation, priority must always be given to those aspects to be assessed that will be most critical for making decisions in relation to the educational response (pp. 14-15).

Finally, the Who's Who? form was created, based on the contributions of Vadillo (2010). This was used to recover the student's strengths and areas of opportunity, as well as being the starting point for developing the Individualized Education Program (IEP) and the didactic proposal. Deutsch's PEI (2003) was a conduit to elaborate the goals and short-term objectives to be carried out in the pedagogical intervention.

As the analysis of all the documents described above was carried out, an educational situation to be improved was postulated as follows: poor reading comprehension when reading different texts causes the student not to grasp new knowledge. By focusing on reading comprehension, emphasis was placed on what was observed on small readings done by the student and other activities. With these perceptions, the following questions arose: what is reading comprehension, what is intellectual disability, what strategy would be functional to work on reading comprehension in a student with intellectual disability?

With these questions, we proceeded to the task of researching and spinning information. It was interpreted that reading comprehension is the sum total of the incoming information plus the information that is possessed to concatenate it and take it to an interpretation;

4 Teacher Work Diary

and that intellectual disability is understood as limitations mainly in intellectual functioning. In this sense, small tests of possible strategies were carried out and until finding a suitable one with the characteristics of the student. In this way, the object of intervention emerged as follows: The use of instruction manuals as a strategy to promote reading comprehension in a student with mild intellectual disability in the sixth grade.

In order to carry out a better systematization of the pedagogical work, the general and specific purposes were defined. Each of these purposes had the goal of guiding the didactic proposal, systematizing the steps to follow for a better intervention. General purpose: To favor reading comprehension in a sixth-grade student with a mild intellectual disability who receives attention in the USAER service, through instruction manuals following the cognitive approach, so that the student understands texts of medium complexity such as narrative, instructive, descriptive, informative texts, favoring in this way, his oral expression and writing.

Specific purposes: a) To work on the writing of diverse instructions, through manipulative activities that are linked to the contents attainable by the student, in order to favor the chronology, comprehension of actions and their writing. b) To strengthen the student's communication, through presentations before a determined audience, in order to stimulate his oral expression. c) To improve the capacity of communication of thoughts, ideas and knowledge through the pedagogical work of videos, in order to favor the student's oral expression.

The aforementioned characteristics were approached experientially for the elaboration of a didactic proposal entitled: "My notebook and I: I build knowledge step by step". In this process, instruments for verifying results were used to compare the achievements obtained.

The cognitive paradigm and the 2011 study plan and programs were used to support its management, especially in the formative field of language and communication.

In this core part, the main factors were taken up again in relation to the expectations that the characters attached to the student expected. The first step was to favor the student's reading comprehension. The second point was to improve his oral expression by enhancing his confidence in speaking and finally to achieve the inclusion of the student in a tele-high-school.

To address these points and counteract them with the vision that reading comprehension involves a complex process in which memory, language and thought intervene as mechanisms in the information process, it was necessary to make curricular adaptations in content and didactic materials. The guiding principle for the adaptations was the Universal Design for Learning (DUA), considered as the document that guides the way for a flexible curriculum, that is, to make sure that all students reach the contents.

Since reading comprehension is part of the subject of Spanish, the purpose of the 2011 Program of Study for sixth grade was taken up again, highlighting that "The appropriation of the social practices of language requires a series of individual and collective experiences that involve different ways of reading, interpreting, and analyzing texts..." (p. 15), therefore, the didactic proposal addressed three moments for the breakdown of each of the social practices.

The first moment went from January 14th to February 15th, 2019, carrying out a series of activities such as crafts and cooking recipes, aimed at reading comprehension. In the course of the sessions the student showed interest and commitment to carry out the activities, in addition to a total amplitude in creating and manipulating objects. When the time came to elaborate the instructions, the student "asked me to dictate some ideas that he had told me because he had forgotten them and it was a little difficult for him to organize them again"

“Fragment of the diary” (DTD, 1/18/19). As these actions took place, more reflection was required on the types of support he needed.

Based on the activities carried out, it is affirmed that with the application of recipe books and handicrafts, coherence is mainly worked on when following instructions, addressing the linearity and characteristics of instruction manuals. Likewise, emphasis is placed on spelling and word segmentation during the student’s writing. Each of these aspects favors reading comprehension, in addition to being part of the purposes of the subject of Spanish.

The second part was conducted from March 4th to March 29th, 2019. In order to increase the complexity of the instructions, they were merged with experiments. The instructions were focused on natural sciences making transversality with the subject of Spanish. The contents addressed were: simple machines, optical instruments and types of energy. In each of the experiments, the comparison, reflection and similarities of each one of them were sought, by putting them into practice.

The first topic developed was simple machines. The student looked attentively at the class and fixed his gaze on the images presented. The questions flowed as the session progressed until it was time to do an experiment between two simple machines, the pulley and the lever. The student stood up and picked up the materials to opt for a comfortable position. At the culmination “the student tested how much force was applied to lift a weight depending on the point of support” (DTD, 3/13/19), relating it and providing examples from everyday life.

The second topic was optical instruments. These sessions were very dynamic by exemplifying the concepts and not making the student memorize them. In the experiment carried out on converging mirrors, the child

was eager to do the activity without requiring personal help, only the instructions were enough. The understanding of the subject was reflected.

- E.N.: Look through the mirror...
 - Leo: ok
 - EN: What do you see?
 - Leo: The arrow is bigger
 - E.N.: So, what kind of mirrors are we talking about?
 - Leo: Diver... no, convergent.
- (DTD, 20/03/19).

Last topic: types of energy. In these sessions, two experiments were carried out, focusing on heat energy. In these actions, more attention was paid to manipulating objects that could cause some kind of damage. The effects that heat produced in the actions of the student provoked in him a series of questions that showed his understanding and analysis of the topic through the first experiment.

Leonel was surprised when he saw that the spiral began to turn and as a result of this action, he had questions

- Leo: Why is it moving?
 - E.N.: Because of the heat energy caused by the candles.
 - I explained to him how heat causes a body to move, after which he asked me the following question
 - Leo: But why is it moving as if the spiral is getting bigger.
 - E.N.: The spiral doesn’t get bigger; its shape makes the spiral go up and down so it looks like it’s growing.
- (DTD, 25/03/19).



In the second experiment, the student was fascinated with what heat provoked and even more so when the balloon began to inflate, saying the following “now I understand why the hot air balloon stays in the air” (DTD, 26/03/19). Each one of the experiments and the elaboration of their corresponding instructions helped favor the student’s comprehension by relating each topic to his daily life, that is to say, he put it into practice.

The last part, comprised from April 29th to May 24th, 2019, used videos as a teaching resource. The implementation of the videos was to promote oral expression and make him able to communicate his ideas, thoughts and knowledge. In this last intervention the didactic planning is carried out under the proposal of “The didactic cultural projects: a proposal of inclusion to children of basic education with learning barriers” (Hernández Díaz, 2015). This project considered that teaching should be a sociocultural process from the cognitive paradigm.

The challenge in these final sessions was for the student to be sufficiently capable of searching for and interpreting information, as well as communicating information through video production. The activities began with the elaboration of interviews and the completion of a family album. For the presentation of the album the student stood in front of his classmates and began to narrate his life journey. Throughout the presentation, his language was fluent. There was a correspondence between the images he showed and what he said. The mother’s intervention was assertive in emphasizing some points. In this way, the importance of cultural projects in the educational field was reflected.

In the course of each of these sessions, the processing of information was taken up again. In the recovery of prior knowledge, the student’s knowledge was extracted. Based on this, the introduction of the topic was carried out using didactic materials that were eye-catching, that is, in colorful macro-types, with

large print, among other things, so that the student could perceive this information visually, using sensory memory.

Once the information was captured by the student, it was required that this was not arbitrary, that is to say, that what he perceived was significant enough so that he could concatenate it with the information he possessed and not be forgotten. In this process of codification and storage, examples were made in a practical way that started from what he finds in his social environment and especially in his family environment. An example of this was working on the contents of the subject of natural sciences through experiments.

Derived from this, the examples of simple machines were about the usefulness of moving or lifting a heavy object. In the type of energies, reference was made to the reaction caused by heat and electrical energy on a body at rest, providing examples from everyday life. All these examples helped in the appropriation of the information and in this way, it was stored and retrieved in the long-term memory.

Returning to the fact that one of the purposes of the didactic proposal was to strengthen the student's oral expression, the implementation of videos as a didactic resource was carried out. In this sense, we looked for comprehension and grammatical coherence in the student's oral language so that the student's information processing would be reflected orally, that is to say, that his knowledge would not remain internally, but would be expressed in an efficient way. This action also helped the student play the role of transmitter, when doing the action of informing.

The active teaching method was used in terms of student activities. This method was chosen because it allows reflection and analysis of the student's participation in each of the activities, especially in the experiments, by reflecting their understanding through a

practical and daily example. The importance of this method lies in the fact that the student acts physically and mentally within the teaching-learning process as mentioned by García González and Rodríguez Cruz, (2011).

When the participation of the learner in the learning experiences is taken into account, the method is said to be active. In this case, the method functions as a device that makes the student act physically and mentally. The teacher ceases to be a simple transmitter and becomes a coordinator, a leader, a guide of the task (p. 33).

Thus, the various activities helped the student act mentally when searching for information on a topic, to compare and find the differences in the experiments carried out, and to organize his ideas and thoughts to communicate them orally and in writing, in the use of videos as a teaching resource. For this reason, the technique of simultaneous dialogues was used.

Simultaneous dialogues were used to enhance student participation. On the other hand, the dialogues provide "...an opportunity for expression, in the broadest possible way..." (García González & Rodríguez Cruz, 2011, p. 44), which helps oral language. These aspects of the method and technique favored the educational practice. Another factor was the learning aids, considered as tools to eliminate special educational needs as mentioned by Valdez (2010).

We all need aids: people who guide us in learning; didactic strategies to create meaningful educational environments and shared understandings; scaffolding to favor autonomy, self-control and self-regulation processes. Learning aids are, in short, tools to reduce barriers to learning and participation (pp. 20-21).

The aids were mainly reflected in the indications and suggestions, in the curricular adaptations that were made in the materials, but above all in the use of a cognitive factor such as mind maps as a vehicle that begins with

memorization and ends with categorization of the topics as mentioned (Cruz Ramirez, J. in Hernandez Diaz, 2006).

The mind map is a strategy that increases the capacity of simplification and memorization, thanks to the visual form in which the data is captured. Starting from the central theme, the accessory themes are branched around it in graphic form. The branches form a connected nodal structure (p. 119).

The evaluation process was carried out at different times. For each of the stages in which the didactic proposal was applied, an evaluation of the contents and the teaching-learning process was carried out considering three moments: initial, formative and summative. Several formal instruments were applied, such as rubrics, checklists and exams, considering that they evaluate the student's performance, taking into account the characteristics of each didactic sequence and assessing the results obtained. In addition, the teacher's work diary was used as a narrative instrument and individual record, where the teaching-learning process of each class was written during the three phases of the didactic proposal, which allowed us to analyze and reflect on our own teaching practice so that the strengths and areas of opportunity were identified.

Results

This section shows the results obtained from the application of the didactic proposal with the instructional strategy and a cognitive approach. The information obtained is the product of the indicators elaborated within a unit of analysis and whose central axis is reading comprehension. Within the evaluation, the student's learning was considered as well as the forms and ways that the teacher has at the moment of teaching. These aspects comprise the teaching-learning process, by analyzing and reflecting on the progress obtained in each of the purposes proposed throughout a class session. These two aspects should be

considered, because both the teacher and the student play an important role, as mentioned by Peter (2002).

Assessment has many purposes: to establish balance in the classroom, to plan and conduct instruction, to assign a place in the classroom to students, to provide feedback and incentives, to diagnose student problems, to judge and rate learning and academic progress (p. 21).

Based on this, the results obtained once the proposal was applied and evaluated are shown. As mentioned above, a unit of analysis was carried out from which a series of elements to be evaluated were derived with respect to reading comprehension, logical comprehension when following instructions, the writing of instructions on handicrafts, preparations or experiments, the use of oral language to make known the importance of a topic and finally, reading fluency.

For the analysis and systematization of each of these aspects, a checklist was prepared. In it, various indicators were contrasted. For practical purposes, a manual of activities was developed to evaluate each of the components of reading comprehension. The results obtained in a qualitative and quantitative manner are analyzed below.

The first activity to evaluate logical comprehension when following instructions was: "I read and interpret directions". The purpose was for the student to understand the reading of the instruction manuals, by means of putting them into practice, in order to favor reading comprehension. At first, the student was told what he had to do, showing him a macro-type instruction about an experiment, which he read carefully to perform each action. Afterwards, the student was given a sheet of paper with five open-ended questions about the experiment. With the answers given in each question, the student's understanding of the topic was reflected by correctly answering each item (Figure No. 1).

Through the checklist indicators, the student understood the logical follow-through

in carrying out instructions such as recipes, crafts, and experiments. He recognized and identified the parts of an instructional manual. The student started reading from the title, continuing with the materials and instructions. Finally, he showed interference in the images, that is, sometimes he could decipher the indication without the need to read the instruction carefully.

When using the checklist as a reference, it was carried out under a qualitative criterion, evaluating the progress obtained throughout the school year from five to ten. For this reason, a greater increase is reflected in the exact execution of an instruction with 35%, as well as the ability to interfere with the image together with its indication with 33% (see graph No. 1).

In order to evaluate the use of oral language, activity number three of the manual was carried out. The purpose was that the student was able to use oral language through the development of a video, in order to communicate his knowledge on a topic. Each evaluated aspect was verified in the checklist; in this regard the following aspects were relevant:

At the phonological level, the student shows fluency in speaking. He is in the process of correctly pronouncing the phonemes /r/ and /s/. His voice is strong. In the semantic aspect he shows a moderately wide range of language. On the pragmatic level, he makes the necessary patterns between one idea and another. His speech is coherent. He maintains a balanced posture. He is still in the process of controlling his nervousness and therefore his confidence in speaking. Finally, at the morphosyntactic level, he organizes his ideas. He maintains a grammatical structure in his sentences and uses articles depending on gender.

It should be noted that in each level of language as a broad field of linguistics, certain criteria were specifically contemplated. These criteria were taken into account in a pertinent and feasible manner, given the student's

disability and the expected learning for his grade level. For this reason, the phonological level is shown with greater impetus with 35% and the morphosyntactic level with 24%. Derived from this, it is possible to appreciate the student's progress in the articulation of sounds, that is, the correct pronunciation of each phoneme. Within the morphosyntactic level, it is assumed that the student has an adequate organization of words within a sentence. These evaluations show the progress obtained in reading comprehension through the application of the instructions (see Graph No. 2).

According to each of the aspects evaluated on comprehension, fluency is considered to be the rhythm, tone, and intensity of reading. In other words, reading fluency is a mechanism that children develop as they learn and practice the habit of reading. In the case of the student, reading fluency is affected by the degree of intellectual disability. For this reason, the pertinent adaptations were made to the activity with which this aspect was evaluated.

In order to evaluate the student's fluency, activity number four of the booklet was carried out with the purpose of measuring fluency and reading comprehension through the reading of a narrative text to favor the reading processes. First, the reading "The Lion and the Mouse" was given to the student to read silently and then aloud. During the course of the reading and according to the prosodic skills that were evaluated, an adequate rhythm was evident, respecting some punctuation marks, mainly the comma and the semicolon.

In addition to this, the recognition and decoding of words was reflected. In this aspect, the student improved in terms of pronunciation; however, he continued to omit the phonemes /r/ and /s/, in words that have that ending. After the reading, we continued with reading comprehension, for which the student was given a sheet of paper with six questions about the reading.

To answer the questions, he did not need to do the reading again despite the time that had already elapsed from one activity to another. This reflected the retention of information in the student's long-term memory. In the answers that he wrote were not literal, that is, according to what the text says, but rather he included the information with his experiences without losing the essence of the text. It should be noted that, in order to evaluate this point, the reading test designed by the Andalusian Agency for Educational Assessment (n.d.) was consulted. In this test, certain adjustments were made mainly to the text that the student read.

The reason why this test was taken is because it is framed within the information processing theory of the cognitive approach. In addition, it alludes to the importance of evaluating reading comprehension and the levels that are considered within the range it establishes for students in the sixth grade of elementary school. These levels of comprehension are: literal comprehension, making inferences and critical appraisal as mentioned by the Andalusian Agency for Educational Assessment (n/d).

Literal comprehension involves recognizing and remembering the facts as they are expressed in the text; inferential comprehension implies using the data explicit in the text, plus personal experiences and intuition, to make conjectures or hypotheses; and critical comprehension involves making personal judgments about the text, assessing the relevance or irrelevance of the text (p. 14).

According to this classification and the analysis of the applied test, it was concluded that Leonel is on the inferential level of reading comprehension. This was reflected in the answers he provided once he read the text "The lion and the mouse", by putting together the information received with his knowledge and experiences (Figure No. 2).

In the area of reading fluency, it should be noted that his reading mode is syllabic-alphabetic. He showed progress in the rhythm of reading, respecting the comma and the semicolon. Therefore, the functionality of the strategy in reading comprehension was analyzed and observed. Each intervention was reflected upon, with the purpose of achieving all the purposes of the didactic proposal. It began with writing and coherence when following an instruction manual, followed by the explanation of the experiments and finally culminated with the elaboration of videos reflecting the comprehension of the topic and oral expression.

These goals were circumscribed in the curricular aspect, according to what is established in the 2011 Study Plan in force in the educational center. For this reason, the 2011 sixth-grade syllabus was taken up again, for the scope of the contents in the subject of Spanish: the report and the instruction manual corresponding to block II. In the first topic, he was able to identify the main characteristics and functions of reports. In the second topic, he achieved the production of written texts, the use of verb tenses and the characteristics and functions of instruction manuals.

Oral expression, fluency and reading comprehension were favored by observing the scope that the student gave to each topic. The writings on the report showed a linearity that contrasted the uniform follow-up in the clarity of the facts occupying basic connectors for his objective. Likewise, he communicated salient information about the topic by interacting with her peers in the regular classroom and exploring his communication skills exploiting his oral language. In terms of instructional texts, the support and dynamic exercise for the creation of any type of text was favored in the use and knowledge of verb tenses.

In Block III the following contents were worked on: the historical story, adapting a story to a play and opinion letters. In this block, the reading aspects were reflected through the creation of paragraphs in reference to the historical story, with conventional coherence and spelling, establishing a comprehensible text for the reader. In the adaptation of a story to a play, the comprehension capacity was strengthened by establishing exemplified mechanisms to identify the structure of a play and in this way introduce speeches from the story to a theatrical script, as well as the correct use of question marks and exclamation marks. In both the play and the opinion letters, oral expression was strengthened by interpreting each product aloud.

In Block IV, emphasis was placed on personal letters and the use of connectives to contrast information about a topic. When dealing with letters, the oral exercise was used in the verbal information that the student wanted to communicate, using appropriate pauses for the correct expression according to their abilities. For the writing of the letter, in addition to using connectives, he used adverbs of time and place to adapt his language and direct it to the addressees. At the end, comprehension was reflected in the recognition and appropriation of the characteristics of the letter as the structure and the data of the addressee and sender.

Finally, in Block V, we addressed the social practice of language entitled: "making a scrapbook of memories of elementary school". With this language practice, the correct chronology of information that the student could collect through the application of interviews was mainly exercised. When elaborating the album, the student made reference to a beginning, development and closing in order to know where he was going to start from and how far he was going to go, following the thematic sections of his album. Each of these contents were intertwined with the strategy for the realization of activities that gave guideline to reading comprehension, oral expression and reading fluency.

Conclusions

Through analysis, observation and evaluation of the extent of the case, we addressed reading comprehension as an educational situation to improve in the student. Under the breakdown of all the information, it can be argued, supported and affirmed that using instructions with a cognitive approach favors reading comprehension in a student with mild intellectual disability. With this achievement, a contribution is obtained within the special education regarding the pedagogical work for the improvement of educational situations in favor of students.

The interventions in each phase went from less to more complex. Each work session was based on the breakdown of previous knowledge, curricular adaptations and the support and help provided. In this sense, it can be affirmed that in the complexity of disability, a real look at the person allows for creativity, design and seriousness in the planning of activities, in which all pedagogical activity revolves around the student. Didactic materials and curricular adaptations are also foreseen as mechanisms for the greater achievement of the objective set out in each work session.

The use of videos affirms that the diversity in didactic resources, of which the teacher can make use of, facilitates the way, the mode and the form of teaching both simple and more complex contents. This invites the use of information technologies called Empowerment and Communication Technologies, because precisely in students with disabilities, they are of great help in the appropriate grammatical structure to perform pedagogical steps ranging from a simple song to the development of an experiment, a text or a classification. This translates into a development of oral expression in an assertive, logical and coherent way.

The achievements obtained in reading comprehension reveal the student's perceptual

qualities by increasing their language levels in the fields of semantics, pragmatics, morphosyntactics and semantics. Each of these levels were broken down to collect qualitative criteria that were achieved by the student through the final assessment. These results were mainly reflected in vocabulary growth, grammatical sentence structure, and common usage of oral and written language.

These contributions made from the case study methodology are references that can be put into practice as an approach and not as an absolute determination. In this sense, the main pedagogical references are: always start from the person, the method is imposed by the object and make the relevant observations and evaluations. Therefore, the role of a teacher with ethics and professionalism will always be to work in human education, bearing in mind the factors involved in pedagogical work, such as observation, reflection, planning, action and evaluation.

The pedagogical work in the field of special education invites professionals to commit themselves to the challenge that arises inside and outside the classroom. It opens the panorama to maintain a constant training for the approach to disability in a specific way and thus understand the characteristics of the students, always putting personal humanity first. In this sense, intellectual disability has been evolving with the passage of time found different levels of affectation mainly in IQ, adaptive skills and language. These features can be worked from the capabilities that students have to increase their educational life and later the transition to adulthood.

The importance of oral expression is also highlighted within the activities that students carry out in their different contexts: social, school and classroom. While stimulating this variant of reading requires promoting lucrative, dynamic and playful activities that meet student's interests. In this case, these activities were favored through the use of videos, thus

endowing the importance of establishing communicative dialogues with a mutual purpose.

On the other hand, reading comprehension is facilitated by the support materials and mainly the didactic strategies that teachers facilitate and modify in their educational work with students. Comprehension opens the mentality of the students and keeps alive the passion to continue learning and developing their mental, physical and social capacities within life in society. That is why reading should be encouraged as a permanent activity within schools through the organization and distribution of outstanding topics of the context and according to the plan and programs that are handled in each school.

Reading fluency is substantial at the time of understanding a text, since this gives the facility to promote a reading according to the punctuation marks. With this, it is intended that the reader shows greater ease of speech, intonation and understanding of the different texts that give him/her a new knowledge based on the information he/she has. Finally, it is concluded that the approach of the case study methodology is considered as the establishment of steps to follow regarding the in-depth study of a single case. This helps the researcher not to deviate from the path and to go deeper into the different contexts where the case occurs, since the different observable areas have a positive and negative influence on the case. In addition to this, different field instruments are considered to help guide a qualitative approach to the analysis and reflection of the information.

References

- Andalusian Agency for Educational Evaluation. (n.d.). *Evaluation guide. Reading skills, Primary Education*. Sevilla.
- Añón, E. M., Bagueño, E., Barredo, F., Nuere, S. (2010). *Reading to learn. Reading in the digital age*. Ministry of Education.

- American Association on Intellectual and Developmental Disabilities (2011). *Intellectual Disability. Definition, classification and support systems*. Madrid, Spain: Alianza.
- Bonals, J. Sánchez, C. M. (3rd Ed.) (2007). *The psychopedagogical evaluation*. Spain: Graó.
- Booth T., Ainscow M. and Kingston D. (2006). *Index for inclusion. Developing play, learning and participation in early childhood education*.
- Carril, I. and Caparros, M. (2nd Ed.) (2006). *Leer...*. Mexico: Trillas.
- Political Constitution of the United Mexican States (2018). Official Journal of the Federation. Chamber of Deputies H. Congress of the Union.
- Deutsch, S. D. (4th Ed.). (2003). *Psychopedagogical bases of special education*. Madrid: Pearson.
- Dirección General de Desarrollo de la Gestión e Innovación Educativa (2006). *General Guidelines for the Operation of Special Education Services*. Mexico: SEP.
- E. Stake R. (1999). *Case study research*. Madrid, Spain: Morata
- E. Wisner J. (2004). *Disability and intellectual ability. In the so-and-so, the autistic, the elderly, the amnesiac, the dyslexic, the genius-idiot, the infant and the pauper*. Colombia: Kimpres Ltda.
- García, G. E. and Rodríguez, C. H. M. (2nd Ed.). (2011). *Teaching methods*. Mexico: Trillas.
- Hernández Díaz, R. (2015). *The didactic cultural projects a proposal of inclusion to children of basic education with barriers to learning aimed at students of the 7th and 8th semester of the B.A. in Special Education*. Oaxaca, Mexico: Multidisciplinary Institute of Specialization. Diplomado de Fortalecimiento Académico para la inclusión.
- Hernández Díaz, R. (2006). *Proposal and systematization of cognitive strategies for reading comprehension in elementary school students*. Iberoamerican University of Puebla. Master's degree thesis in Basic Education Development.
- Hernández R. G. (1998). *Introduction to the methodology of empirical research*. Barcelona: Paidotribo.
- Ladrón, J. A., Álvarez, C. M., Sanz, R. L. J., Antequera, I. J., Muñoz, G. J. J. and Almedro, M. M. (2013). *DSM-5: New features and diagnostic criteria*. Centro Documentación de Estudios y Oposiciones.
- General Law on the Rights of Children and Adolescents* (2018). Official Gazette of Mexico City.
- General Law of Education* (2018). Congress of the United Mexican States. Official Journal of the Federation.
- Madrazo, G. C., Díaz L. C., Barbeytto, A. G., Triujeque, W. E. & Aviña, M. T. (2014). *Reading and writing with pleasure*. Mexico: La vaca independiente.
- Pastor, C., Sánchez, J. and Zubilaga, A. (2008). *Universal Design for learning: guidelines for its introduction in the curriculum*.
- Postic, M. and De Ketele, J.M. (3rd Ed.). (1992). *Observing educational situations*. Madrid, Spain: Narcea.
- Peter, W.A. (2002). *Assessment in the classroom*. Mexico: Interamericana.
- Secretaría de Educación Pública (2004). *Guidelines for the Organization of Academic Work during Seventh and Eighth Semesters*. Mexico: SEP
- Ministry of Public Education (2011). *Special Education Services Attention Model MASEE*. Mexico: SEP.
- Ministry of Public Education (2011). *Study Plan 2011. Basic education*. Mexico: SEP.
- Ministry of Public Education (2011). *Study Plan 2011: teacher's guide, elementary education, sixth grade*. Mexico: SEP.
- Smith, F. (2nd Ed.) (2015). *Reading comprehension*. Mexico: Trillas
- Solé, I. (3rd Ed). (2012). *Reading strategies*. D.F. Mexico: Colofón.
- Vadillo, G. (2010). *From teacher to academic author. Forty weeks of innovative and effective classes*. Mexico: Paidós.
- Valdez, D. (2010). *Aids to learning. Developmental disorders and inclusive practices*. Buenos Aires, Argentina: Paidós.
- Vásquez Diego Rocío Anahí. *Teaching Work Journal*. (2018-2019). Oaxaca, Mexico. Normal School of Special Education.
- Zabalza, M. A. (3rd Ed.). (2004). *Classroom diaries. A tool for professional research and development*. Madrid, Spain: Narcea.