

Attention deficit and reading comprehension of andean texts in children at moderate altitude

Déficit de atención y comprensión lectora de textos andinos en niños que estudian a moderada altitud

Grecia Mamani¹

Universidad Nacional del Altiplano de Puno, Puno-Puno, Perú

 <https://orcid.org/0000-0001-5817-4896>

Ana Vilca

Universidad Nacional del Altiplano de Puno, Puno-Puno, Perú

 <https://orcid.org/0000-0003-4809-7334>

Fred Torres

Universidad Nacional del Altiplano de Puno, Puno-Puno, Perú

 <https://orcid.org/0000-0003-0834-6834>

DOI: <https://doi.org/10.35622/j.rie.2020.04.006>

Received 16/08/2020/ Accepted 30/09/2020 Published 21/10/2020

ORIGINAL ARTICLE

KEYWORDS

Attention, ADHD, assessment, reading comprehension, disorder

ABSTRACT. The problem of attention deficit and the level of reading comprehension in children is a problem that teachers must pay attention to; since it is present in the personal, social and community areas and cognitive, emotional and interactive behaviors of children. Therefore, the objective of the study was to know the attention deficit and the reading comprehension of an Andean text in children who are at 3800 meters above sea level when they study it in conditions of low temperatures. In the study, it was observed that 13.8% of children have ADHD; however, 10.3% of this population is at the beginning of the reading comprehension process, this being significant. ADHD and meager reading comprehension is a real problem that teachers must know and face in order to apply appropriate strategies and techniques, for the development of children it is essential the importance that they must give to this disorder and its corresponding monitoring since this is of vitally important to be able to act in a relevant and effective way so that children's learning be satisfactory.

PALABRAS CLAVE

RESUMEN. El problema de déficit de atención y el nivel de comprensión lectora en niños es un problema al cual los docentes deberían tomarle atención, ya que está presente en los ámbitos personal, social, comunitario enfoques cognitivos, emocionales y comportamentales de los niños. Por lo que el objetivo del estudio fue conocer el

¹ Correspondencia: greciavianeymv@gmail.com



Atención, TDAH, evaluación, comprensión de lectura, trastorno

déficit de atención y la comprensión lectora de un texto andino en niños que se encuentran a 3800 msnm en la estudian en condiciones de bajas temperaturas. En el estudio se observó que el 13.8% de niños presentan el TDAH, sin embargo, el 10.3% de esta población se encuentra en inicio en el proceso de comprensión de lectura siendo este significativo. El TDAH y la deficiente comprensión lectora es un problema real que los profesores deben conocer y enfrentar para aplicar estrategias y técnicas adecuadas, para el desarrollo de los niños es indispensable la importancia que deben darle a este trastorno y su seguimiento correspondiente puesto que esto es de vital importancia para poder actuar de forma pertinente y eficaz para que el aprendizaje de los niños sea satisfactorio.

1. INTRODUCTION

The attention deficit and the reading comprehension of Andean texts in children are frequent learning difficulties in the classrooms. The lack of attention seems imminent because at first glance the inattention, lack of concentration, impulsivity and hyperactivity that occur in boys and girls when reading contextualized texts.

This represented a factor that was not allowing a satisfactory or significant reading comprehension, so we decided to carry out this study that focuses on attention deficit and reading comprehension, which is described in the National Curriculum for Basic Education of Peru, according to the capacities and performances established by the Ministry of Education in Peru as the current norm in the preparation of this work.

One of the biggest educational problems in Peru is that students from an early age do not have a good reading comprehension and it is evident in the multiple tests are: PISA², ECE³ in which the minimum parameters that indicate and demonstrate aren't reached good reading comprehension. Peru is between the penultimate places in the reading comprehension of students in both primary and secondary education according to what was observed in the Peruvian report of results in PISA. From the guidelines of the National Curriculum, it is intended to improve, but the conditions for contextualized adaptation of the learning standards proposed by the Ministry of Education of Peru, concerning reading comprehension in the area of communication, are still lacking. It is probably that ADHD⁴ is a factor that is affecting children's reading comprehension. The CNEB⁵ in the area of communication establishes the capacities to evaluate reading comprehension, 1) Obtains information from the written text, 2) Infer and interpret information from the text, 3) Reflect on and evaluate the content and context form of the text (Ministry of Education, 2016).

According to the American psychiatric association (2012), attention deficit disorder is a neurological disorder that according to official figures from the WHO affects between 5% and 7% of children worldwide. The main idea raised by Ferrer et al. (2017) in reference to ADHD indicates that it is of an observational nature, generally by teachers and the student's family members. And

² PISA: for its acronym in English Program for International Student Assessment (program test for international student assessment)

³ ECE: census evaluation of students.

⁴ ADAH: attention deficit disorder

⁵ CNEB: National Curriculum of Basic education.



regarding the characteristics of this disorder Torres et al. (2016) tell us that the implications such as cognitive, emotional, behavioral and personal, social, community and school, the latter being a focus of outstanding interest due to the significant difficulties that occur at this level. And on the other hand, Christien et al. (2013) make a conclusion saying that this being one of the most relevant health problems of those that affect the functioning of children and adolescents is the Attention Deficit and Hyperactivity Disorder ADHD.

ADHD is a disorder that has a heterogeneous etiopathogenesis, that is, it can be caused by a variety of biological, psychological and social conditions which can act together or individually, but future studies will provide more knowledge about how these varied causes interact each other and the role of environmental factors as a whole (Barra & García 2005 cited by Alza, 2013).

ADHD is a neurobiological disorder that affects both adults and children, it is described as a persistent or continuous pattern of inattention and / or hyperactivity and impulsivity that prevents daily activities or typical development, individuals with ADHD may also experience difficulties in maintaining attention, working memory, executive function (ability of the brain to start an activity, organize and carry out tasks), ADHD is placed in the category of Disorders of onset in infancy, childhood or adolescence (CHADD National Resource Center 2013). As also the FundacionCADAH.org (2012) consolidates that attention deficit disorder is a neurological disorder that according to official figures from the WHO affects between 5% and 7% of children worldwide. And referring to national information, the APDA association (2002) tells us that it is a neuropsychiatric condition characterized by the presence of attention deficit, hyperactivity-impulsivity or both. ADHD is characterized by the presence of a symptomatic triad characterized by hyperactivity, impulsivity and inattention. Symptoms appear heterogeneously in one patient or another, with greater or lesser intensity for one or another component of the triad (National Resource Center of CHADD, 2013).

According to Fundación CADAH (2012), the attention deficit that occurs more in school age at the primary education level, which doesn't allow adequate and meaningful learning. Affirming this condition to this problem takes relevance because it hinders the child's learning, the intense and curious behavior of children with high capacity exacerbated by boredom in class (Barra & García 2005 cited by Alza, 2013). Hyperactive children, as they have an impulsive cognitive style, apply fewer and less variety of problem solving strategies; Children solve puzzles by randomly picking pieces and working by trial and error in a piecemeal way (they do not try out all the possibilities with one piece first, or put it aside to continue the same process with another), or they solve problems with friends by following a single strategy (hitting, threatening or running away), even if it isn't effective (Orjales, 1999).

According to Garcia, M. et al (2008) tell us that inattention and poor ability to control their motor activity cause a decrease in school performance that leads in most cases to school failure. Similarly, it must be taken into account that it is crucial to adapt school requirements to the characteristics and limitations of these children, who in up to 50% of cases also present motor deferment and sometimes language delay (Martínez, 2016). Therefore, we point out that this problem is present and is not allowing significant learning, so it is important to know how it is



presented, so that teachers can take didactic methodologies and strategies to counteract the comorbidities that may occur in addition to ADHD.

It is necessary that the classroom teacher must know ADHD to respond to the needs of these children, the knowledge of ADHD by the teachers helps them to observe and collect information about the student's behaviors, to plan and apply the appropriate educational intervention for these children and it is important that a learning program is put in place. According to Espina & Ortego (2004) affirms that attending a support classroom with therapeutic personnel, teacher or therapeutic pedagogue (PT6) is necessary in most cases of ADHD.

ADHD has its clinical presentations according to DSM-57 Persistent pattern of inattention and / or hyperactivity-impulsivity that interferes with the functioning or development that is characterized by (1) and / or (2) that characterizes them.

Clinical presentation of inattention

- Doesn't pay attention to detail or makes careless mistakes.
- Has difficulty maintaining attention.
- Doesn't seem to listen.
- Has difficulty following instructions to the end.
- Has difficulty with organization.
- Avoid or dislike tasks that require sustained mental effort.
- Lose things.
- Is easily distracted.
- Is forgetful about daily tasks (Centro Nacional de Recursos de CHADD, 2013).

Hyperactive / impulsive clinical presentation

- Fidgets or twists hands or feet, or cannot sit still in a chair.
- You have trouble sitting still.
- Runs or climbs excessively; extreme agitation in adults
- Difficulty performing activities quietly.
- Acts as if it were motorized; the adult is often driven by an internal motor.
- Talk excessively.
- Reply before the questions are finished.
- Difficulty waiting or taking turns.
- Interrupts or annoys others (National Resource Center CHADD, 2013).

Combined inattentive and hyperactive-impulsive clinical presentation

- The individual presents symptoms of both clinical presentations mentioned (National Resource Center CHADD, 2013).
What we can summarize in Table 1.

⁶ PT: Therapeutic staff

⁷ DSM-5: Diagnostic and Statistical Manual of Mental Disorders fifth edition

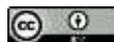


Table 1. Attention Deficit Presentations

ADHD	PRESENTACIONES	CATEGORIES	
Attention deficit disorder Inattention	Lack of attention	Nothing	0
	Hyperactivity / impulsivity	Little	1
		A lot	2
	Inattention and hyperactivity / impulsivity	Enough	3

Source: (CHADD National Resource Center, 2013)

DSM (*Diagnostic and Statistical Manual of Mental Disorders*) is the Diagnostic and Statistical Manual of Mental Disorders fifth edition of the American Psychiatric Association (APA).

According to Torres (2011), comprehension involves the construction of a representation of global meaning in which the student puts into play different processes, operations and skills, makes synthesis, inferences and interpretations so that it allows him to give personal meanings to reading. Reading comprehension isn't only achieved with the simple fact that the student can decode with precision, but rather a highly complex task in which different cognitive processes are involved from the visual perception of graphic signs to the construction of a semantic representation of in short, its meaning is the ability of the reader to extract information from a printed text (Aliaga, 2012). That is why it is important to see the relationship between attention deficits in the context of reading comprehension.

According to Vallés (2005), to understand written texts, a series of processes of a perceptual nature are put into operation (informational access to reading, perceptual processes are involved in reading and understanding. Learning to read and write is the area in which the most these difficulties are observed: mirror writing, bad spelling, and inadequate organization of space. Dyslexia is twice as frequent in ADHD, which increases the chances of school failure (Espina & Ortego, 2004)

In this perspective, long-term memory and information access routines play a very relevant role, and determine the success or degree of achievement that the reader may have (Vallés, 2005).

The competence reads various types of written texts imply the combination of the following capacities that are defined by the national curriculum such as a) Obtains information from the written text, b) Infer and interpret information from the text, c) Reflect and evaluate the content and context of the written text (Ministry of Education, 2016).

What can be summarized in Table 2 and 3

Table 2. Native Language Reading Skills and Performance

COMPETENCE	SKILLS	PERFORMANCE
	Get information from typed text	Obtains information located in different parts of the text with a simple structure, local topics, accompanied with some illustrations and with known and varied vocabulary.
Understand narrative texts	Infer and interpret written text information	Infer by relating explicit and implicit information and interpret the subject and purpose of the text, the author's intentions.
	Reflect and evaluate the form, content and context of the text.	They assume that the student compares and contrasts formal aspects and content of the text with the experience, and also issues a personal opinion on formal aspects, aesthetics, content of the texts

Source: Ministry of Education (2016)

Table 3. Assessment of Reading Comprehension

NUMERICAL EVALUATION	NOMINAL EVALUATION	LITERAL EVALUATION
18- 20	AD	Outstanding Achievement
14- 17	A	Expected achievement
11- 13	B	In process
0- 10	C	In Start

Source: Ministry of Education (2016)

The evaluations of competencies through the evaluation scale, as they are descriptive, are the result of a teacher judgment made based on the performance demonstrated by the student, in the various significant situations raised by the teacher. These evaluations must explain the student's progress in a given period with respect to the expected level of proficiency (learning standards), indicating progress, difficulties and recommendations to overcome them. In that sense, they are



not isolated notes or averages or single phrases or a qualifying adjective (Ministry of Education, 2016).

2. METHODS AND MATERIALS

The study that was carried out was of a quantitative descriptive nature - not experimental. The study had a population of 133 boys and girls from the "Sagrado Corazón de Jesús" Public Educational Institution which is geographically located above 3800 meters above sea level, having temperatures below 6° Celsius, which represents a unique population in which this study was conducted. The sample was selected for convenience, selecting 26.31% of the population, this being representative of the population. The boys and girls who attend this institution come from the different districts of the town, with a medium-low socioeconomic condition, according to the references of the institution's enrollment lists.

For the data collection process, the corresponding authorization was requested from the management of this institution. Then the teachers and parents of the selected section were informed about the objectives of the study in which they accepted the participation of their children and the informed consent was signed. Before applying the instruments provided for the study, the boys and girls were informed, however, 06 boys and girls could not participate in the study because they had acute respiratory diseases, given the winter in Puno city having as study subjects 18 girls and 11 boys.

To measure attention deficit, the observation guide developed by the Diagnostic and Statistical Manual of Mental Disorders (DSM 5) of the American Psychiatric Association was used. who proposes the measurement with the scoring scale with three criteria inattention, hyperactivity / impulsivity and inattention and combined hyperactivity / impulsivity, using scores between (0 - 3) from nothing, little, a lot and a lot (Manual Conners, 2013). And to evaluate reading comprehension, the reading comprehension book Tales, Myths and Stories, current thought of the Andean Culture, prepared by (Rivas, 2009) was taken. The written test consisted of 10 questions were classified into categories such as literal, inferential and critical reflective levels, which were later classified by the responses obtained from the students at the beginning, which indicates to the teachers that the student shows minimal progress in a competence and, in this case, reading comprehension, frequently shows difficulties in the development of the tasks, which is why it needs more monitoring time, in process when the student is close to or close to the expected level regarding the comprehension of narrative texts, to which requires support and expected understanding (Ministry of Education, 2016).

The assessment scales for the diagnosis of attention deficit and hyperactivity disorder as well as for the distinction of subtypes designed on the basis of the criteria of the Diagnostic and Statistical Manual of Mental Disorders (fifth edition) are accepted worldwide by their strong psychometric properties. The questionnaires favor the registration of behavioral aspects and constitute a form of behavioral evaluation. The rating is made with a Likert-type scale, where a score is assigned to each item from 0 to 3. The higher the score, the more frequent the observed symptoms will be (Conners Manual, 2013). As stated by Herrán et al. (2014) the widely used



questionnaire is those of Conners. Then there is a reliable guarantee of the application of the instrument. The criteria for the diagnosis of the combined subtype according to the DSM5 have to take into account six or more indicators of attention deficit and at the same time six or more indicators of hyperactivity and impulsivity (Balbuena, 2014). According to Manual Conners, (2013) concludes on the Conners scale, in which a score of 17 or higher for boys and 13 or higher for girls makes us suspect the existence of a possible ADHD. For the data analysis, descriptive statistics of frequencies, weighting, percentages, arithmetic mean and standard deviation were used. For all calculations a significance of 95% was adopted throughout the statistical analysis process. The analysis was carried out with SPSS v.21.0.

3. RESULTS

The results of the variables are presented as the result of the observation of the variable, attention deficit and the application of a test for the second variable in children. Understanding that to demonstrate the results, the percentage values of the study population in Table 4 that show us the prevalence of ADHD in 13.8% and with respect to the Initial Level of Reading Comprehension in the population is 69%, so we can explain that 10.3% of the study population has an attention deficit and at the same time a deficit in reading comprehension of Andean texts.

Table 4. ADHD and Reading Comprehension in Boys and Girls

		ADHD						
		without ADHD		ADHD		Total		
		i	i%	i	i%	i	i%	
ADHD NCL	*	Start <= 10,00	17	58.6%	3	10.3%	20	69.0%
		Process 11,00 - 13,00	6	20.7%	0	0.0%	6	20.7%
		Expected 14,00 - 17,00	2	6.9%	1	3.4%	3	10.3%
		Outstanding 18,00 +	0	0.0%	0	0.0%	0	0.0%
		Total	25	86.2%	4	13.8%	29	100.0%

Legend: ADHD: Attention Deficit Hyperactivity Disorder; NCL: Reading Comprehension Level, Classification when applying the reading comprehension test and the observation guide.

Source: Self-made.

This 10.3% of boys and girls represents a significant population that presents this disorder to which attention should be paid to be able to mitigate this problem in the classrooms, to objectively evaluate and take into account other variables when attacking these presentations of the ADHD, we observe that in Table 5 the presence of ADHD according to sex. The attention they should have on children should be preponderant due to the frequency in which this disorder occurs.

Table 5. ADHD by sex in boys and girls from the Altiplano

		SEX					
		F		M		Total	
		f	f%	f	f%	f	f%
ADHD	without ADHD	17	58.6%	8	27.6%	25	86.2%
	ADHD	1	3.4%	3	10.3%	4	13.8%

Legend: ADHD - Attention Deficit Hyperactivity Disorder.

Source: Self made

The presentation of ADHD in the study subjects can be better explained according to the indicators analyzed (Table 6), inattention is the highest indicator since there is 20% of this condition divided into 17.2% in girls and 3.4% in children, this indicator being the one that we must take importance for being the highest, however, in the combined table of inattention and hyperactivity / impulsivity, a considerable frequency can also be observed to take into account to attack these points to counteract ADHD.

Table 6. Indicators of ADHD by Sex

		SEX					
		F		M		Total	
		i	i%	i	i%	i	i%
Lack of attention	Normal	13	44.8%	10	34.5%	23	79.3%
	Lack of attention	5	17.2%	1	3.4%	6	20.7%
	Total	18	62.1%	11	37.9%	29	100.0%
Hyperactivity / impulsiveness	Normal	18	62.1%	10	34.5%	28	96.6%
	Hyperactivity/ impulsiveness	0	0.0%	1	3.4%	1	3.4%
	Total	18	62.1%	11	37.9%	29	100.0%
Combined Inattention and Hyperactivity / impulsiveness	Normal	16	55.2%	10	34.5%	26	89.7%
	Combined	2	6.9%	1	3.4%	3	10.3%
	Total	18	62.1%	11	37.9%	29	100.0%

Legend: Characterization of the attention deficit by presentations

Source: Self made

The reading comprehension of Andean texts that are contextualized to the study population also presents frequencies that we present for analysis, considering that in the third grade of primary education according to the national curriculum design of basic education in Peru, the student should have an expected level of reading comprehension with qualification intervals between [14.00 - 17.00], however, we can observe in Table 7 that 69.0% of the boys and girls in the study present a starting level in reading comprehension, presenting this level with higher frequency in girls with 44.8%, on the other hand in boys it represents 10.3% with this classification in the level of reading comprehension.

Table 7. Andean Texts Reading Comprehension Rating

		SEX					
		F		M		Total	
		i	i%	i	i%	i	i%
Reading Compression Level	Start <= 10,00	13	44.8%	7	24.1%	20	69.0%
	Process 11,00 - 13,00	3	10.3%	3	10.3%	6	20.7%
	Expected 14,00 - 17,00	2	6.9%	1	3.4%	3	10.3%
	Outstanding 18,00+	0	0.0%	0	0.0%	0	0.0%

Total	18	62.1%	11	37.9%	29	100.0%
-------	----	-------	----	-------	----	--------

Legend: Characterization of the reading comprehension of Andean texts

Source: Self made

This study considers it important to present the classification of qualifications according to the performance of reading comprehension in boys and girls according to sex, identifying that girls in the performance of obtaining information and the performance of reflection and evaluation have an outstanding level with 41.4% and 27.6% respectively, however, in the performance of inference and interpretation, no outstanding case is presented. On the other hand, children present only 27% of them achieve the minimum expected level in the performance of obtaining information, and only 6.9% (2 children) are at the outstanding level in the performance of reflection and evaluation by On the other hand, in the performance of inference and interpretation, 100% of the children do not even reach the minimum level in this performance despite the standards proposed by the Ministry of Education in Peru.

Table 8. Rating of reading comprehension by performance

		SEX				Total	
		F	i%	M	i%	i	i%
Obtain ing inform ation	Start <= 10,00	3	10.3%	1	3.4%	4	13.8%
	Process 10,01 - 13,00	0	0.0%	0	0.0%	0	0.0%
	Expected 13,01 - 17,00	3	10.3%	7	24.1%	10	34.5%
	Outstanding 18,00+	12	41.4%	3	10.3%	15	51.7%
	Total	18	62.1%	11	37.9%	29	100.0%
Infer and Interpr et	Start <= 10,00	16	55.2%	8	27.6%	24	82.8%
	Process 11,00 - 13,00	1	3.4%	3	10.3%	4	13.8%
	Expected 14,00 - 17,00	1	3.4%	0	0.0%	1	3.4%
	Outstanding 18,00+	0	0.0%	0	0.0%	0	0.0%
	Total	18	62.1%	11	37.9%	29	100.0%
Reflect and Evalua te	Start <= 10,00	10	34.5%	9	31.0%	19	65.5%
	Process 11,00 - 13,00	0	0.0%	0	0.0%	0	0.0%
	Expected 14,00 - 17,00	0	0.0%	0	0.0%	0	0.0%
	Outstanding 18,00+	8	27.6%	2	6.9%	10	34.5%
	Total	18	62.1%	11	37.9%	29	100.0%

Legend: Qualification of Reading Compression by abilities according to the levels reached in the development of the competence reads different types of texts.

Source: Self-made.

4. RESULTS AND DISCUSSION

The main contribution of this study purposes to change the teachers' observation to those children who are crossed out or labeled as the most naughty, restless, disorderly or difficult. Now we look at the problem of attention deficit disorder (ADHD) that boys and girls present and it is likely that these conditions are affecting the development of their learning in reading comprehension. In order to see the frequency of the attention deficit and the comprehension of

Andean texts, the results suggest that both variables present difficulties, especially in boys and girls, in which the evaluated indicators of these variables should be analyzed. It was observed that boys and girls at the time of understanding narrative texts have difficulties in maintaining concentration, they mobilize, talk, are easily distracted and do not follow the understanding of Andean stories, which is reflected in the results presented. Which agrees with the findings of De Groot et al. (2017), reading disability (RD) and attention deficit / hyperactivity disorder (ADHD) are comorbid and genetically correlated, especially the dimension of inattention of ADHD (ADHD-I) for each disorder were moderated by the comorbidity to which indicates there are no shared genes.

As also according to Christien et al. (2013) who say that there may be some relationship if there is a reading disability, both ADHD and RD (reading disability) were associated with deficits in inhibition and lexical decision, Visuospatial working memory deficits were specific for children with ADHD. On the other hand, unlike Torres (2011), in his research, he did not find a direct relationship between attention deficit and reading comprehension only in some aspects. Children with ADHD did not present statistically lower performances than the control group in the reading comprehension process, task where in other investigations it has been reported that by involving skills such as identifying letters and words, fluency, vocabulary, and understanding texts, difficulties that affect their school process have been evidenced.

As well as reviewing studies going to the field of medicine, Lionel et al. (2011) indicates that the ADHD genotype has a 34.35 heritability risk gene and another support from the article by Rosenberg et al. (2013) reading disability (RD) and attention deficit / hyperactivity disorder (ADHD) there are no shared genes, so the author says that the specific genes of each disorder enter into these opposite interactions, and indicates that heritability of these two factors does not vary in these two dimensions, such as reading disability and attention deficit / hyperactivity disorder, so this explanation isn't very clear and what he recommends is to examine the specific genes and more specific environmental factors that help resolve this paradox.

The same, the work of Torres et al., (2016) affirms that the IQ interferes in oral or silent reading and in some cases explains the performance of boys and girls in these two variables, instead of being explained by the influence of working memory that was related to those that described reading comprehension, there was no relation between the variables of working memory and reading aloud comprehension.

The stalemates that are established between the teacher and students with specific learning difficulties are not the best since they become more conflictive, problematic, less warm, so the teacher prefers to get away from these students so that significant learning will not be generated in these students, so it is suggested that the teacher pay more attention to these children working with specific strategies for these difficulties and giving them tools for their progress both in their difficulty and in learning and make them self-sufficient students (Prino et al., 2016).

In this case, it is recommended that at the age of 7-8 years and coinciding with the 2nd-3rd year of primary education, a diagnosis is made recommending specific screening for the detection of ADHD and other related difficulties (Loro et al., 2015). To this procedure, the contextualized reading comprehension instrument must be added to better demonstrate the results.

One of the difficulties that arose in this study was the inclement weather and the lack of consideration of sociodemographic variables, however, this study is the only one in the region that took as a reference for reading comprehension an Andean text contextualized to the region which enhances the tenor of this research and contributes to the knowledge of educators in Latin America.

5. CONCLUSIONS

In summary, the children were evaluated for attention deficit and reading comprehension, as well as it was detected that they have difficulties in acquiring adequate reading at the same time they fail to capture the main ideas of the text, they easily lose their attention what comes to be considered an ADHD disorder.

Therefore, we can affirm the presence of ADHD and the lack of understanding of Andean texts in third grade boys and girls at the IE P. N ° 70003 “Sagrado Corazón de Jesús” institution in Puno city, so it is important to take the Projections against this disorder that affect reading comprehension, despite being contextualized for the boys and girls in the present study.

BIBLIOGRAPHIC REFERENCES

- Aliaga, L. I. (2012). *Comprensión lectora y rendimiento académico en comunicación de alumnos de segundo grado de una institución educativa de Ventanilla*. Universidad San Ignacio de Loyola.
- Alza, C. (2013). *Intervenciones actuales en el trastorno por déficit de atención con/sin hiperactividad (TDAH) en niños y adolescentes*. (Vol. 2). Universidad de Chile.
- American Psychiatric Association. (2012). ¿Qué es el DSM? ¿Afectará la nueva versión DSM-5 al TDAH? *Fundación cadah.Org*, 5–7. <https://www.fundacioncadah.org/web/articulo/que-es-el-dsm-iv-tr-afectara-la-nueva-version-dsm-5-al-tdah.html>
- Asociación Peruana de Déficit de Atención. (2002). *¿Qué es el TDAH?*. <https://www.deficitdeatencionperu.com/que-es-el-tdah/>
- Balbuena, et al. (2014). *Protocolo para la detección y evaluación del alumnado con trastorno por déficit de atención e hiperactividad en el ámbito educativo*. Consejería de educación cultura y deporte. <http://feadah.org/docdow.php?id=581>
- Centro Nacional de Recursos de CHADD. (2013). El TDAH y el DSM-5. *Children And Adults Whith Attention-Deficit Hyperactivity Disorder*, 7–11, 14.
- Christien, J., Severine, Herbert, R., Raymaekers, R. y, & Oosterlaan, J. (2013). *Especial 58º Congreso AEPNYA* -. 206.
- De groot, J., PhD, Bos, V. den, Y, V. der M., & Minnaert, A. (2017). Rapid Naming and Phonemic Awareness in Children With or Without Reading Disabilities and/or ADHD. *Journal of Learning Disabilities*, 50(2), 168–179. <https://doi.org/10.1177/0022219415609186>
- Espina, A., & Ortego, A. (2004). *Guía Práctica para los Trastornos de Déficit Atencional con / sin Hiperactividad*. Janssen-ci



- Ferrer, R., Chavez, K. A., Gallardo, C. A., Loredó, G. A. y, & Meneses, K. A. (2017). *Apreciación diagnóstica de profesores del trastorno de déficit atencional con hiperactividad (TDAH) en escolares de enseñanza básica pertenecientes a establecimientos municipalizados de la ciudad de Arica*. 8, 15. <https://doi.org/10.22199/S07187475.2017.0001.00004>
- FundacionCADAH.org. (2012). *Dificultades académicas de los niños con TDAH a lo largo de la escolarización*. <https://www.fundacioncadah.org/web/articulo/dificultades-academicas-de-los-ninos-con-tdah-a-lo-largo-de-la-escolarizacion-.html>
- García, M., Prieto, L., Santos, J., Monzon, L., Hernández, A. y, & San Feliciano, A. (2008). Trastorno por Déficit de Atención e hiperactividad: un problema actual. *Anales de Pediatría*, 69, 244.
- Herrán, M. et al. (2014). Una revisión narrativa de las escalas de evaluación usadas para el diagnóstico del trastorno por déficit de atención e hiperactividad en niños y adolescentes. *Med Wave*, 14. <https://www.medwave.cl/link.cgi/Medwave/Revisiones/RevisionTemas/5887>
- Lionel, A., Crosbie, J., Barbosa, N., Goodale, T., Thiruvahindrapuram, B., Rickaby, J., Gazzellone, M., Carson, A. R., Howe, J. L., Wang, Z., Wei, J., Stewart, A. F. R., Roberts, R., Mcpherson, R., Fiebig, A., Franke, A., Schreiber, S., Zwaigenbaum, L., Fernandez, B. A., ... Scherer, S. W. (2011). Rare Copy Number Variation Discovery and Cross- Disorder Comparisons Identify Risk Genes for ADHD. *Science Translational Medicine*, 3(95).
- Loro, M., García, N., Miernau, I. y, & Quintero, J. (2015). Evaluation and diagnosis of attention deficit hyperactivity disorder. *Medicine (Spain)*, 11(86), 5153–5156. <https://doi.org/10.1016/j.med.2015.09.005>
- Manual Conners, K. (2013). *En qué consisten las Escalas de Conners para evaluar el TDAH*. Tdahytu. Torre Europa pasea de la castellana
- Martínez, F. J. (2016). *Utilidad de los Neuroesteroides en el diagnóstico y/o respuesta a Metilfenidato en pacientes pediátricos con Trastorno por Déficit de Atención con/sin Hiperactividad*. Universidad de Granada
- Ministerio de Educación del Perú. (2016). *Currículo Nacional de la Educación Básica*. <http://www.minedu.gob.pe/curriculo/pdf/curriculo-nacional-de-la-educacion-basica.pdf>
- Orjales, I. (1999). *Déficit de Atención con Hiperactividad*. “Manual para padres y educadores” Madrid - España. CEPE . Madrid . 1–20.
- Prino, L. E., Pasta, T., Gastaldi, M., Giovanna, F. y, & Longobardi, C. (2016). The Effect of Autism Spectrum Disorders, Down Syndrome, Specific Learning Disorders and Hyperactivity and Attention Deficits on the Student-Teacher Relationship TT - Incidencia de Trastornos del Espectro Autista, Síndrome Down, Dificultades Específicas d. *Revista Electrónica de Investigación Psicoeducativa y Psicopedagógica*, 14(38), 89–106. <http://dx.doi.org/10.14204/ejrep.38.15043>



Rivas, J. A. (2009). *Cuentos, Mitos y Relatos*. Sagitario

Rosenberg, J., Pennington, B. F., Willcutt, E. G., & Olson, R. K. (2013). *Gene by environment interactions influencing reading disability (RD) and the inattentive symptom dimension of attention deficit / hyperactivity disorder (ADHD)*. 53(3), 243–251. <https://doi.org/10.1111/j.1469-7610.2011.02452.x>

Torres, A. M. (2011). *Memoria de trabajo y comprensión lectora en niños de tercer grado A con trastorno por déficit de atención/hiperactividad* (Issue July).

Torres, A. M., Zuluaga, J. B. y, & Vilma, V. (2016). *Memoria de trabajo y comprensión lectora en niños de tercero a quinto grado de primaria con trastorno por déficit atencional / hiperactividad*. 12, 23.

Vallés, A. (2005). *Comprensión lectora y procesos psicológicos. Comprensión Lectora y Procesos Psicológicos*, 49–61.

Conflicto de intereses / Competing interests:

Los autores declaran que no incurren en conflictos de intereses.

Rol de los autores / Authors Roles:

Grecia Mamani: conceptualización, curación de datos, análisis formal, adquisición de fondos, investigación, metodología, administración del proyecto, recursos, software, supervisión, validación, visualización, escritura - preparación del borrador original, escritura - revisar & edición.

Ana Vilca: conceptualización, análisis formal, investigación, metodología, administración del proyecto, recursos, software, supervisión, validación, visualización, escritura - preparación del borrador original, escritura - revisar & edición.

Fred Torres: conceptualización, investigación, metodología, administración del proyecto, recursos, software, supervisión, validación, visualización, escritura - preparación del borrador original, escritura - revisar & edición.

Fuentes de financiamiento / Funding:

Los autores declaran que no recibieron un fondo específico para esta investigación.

Aspectos éticos / legales; Ethics / legals:

Los autores declaran no haber incurrido en aspectos antiéticos, ni haber omitido aspectos legales en la realización de la investigación.

