

Characterization of the Learning Styles of Elementary School Students from an Ethnic Group*

[English Version]

Caracterización de los Estilos de Aprendizaje de estudiantes de básica primaria de un grupo étnico

Caracterização dos Estilos de Aprendizagem de alunos do Ensino Fundamental de um grupo étnico

Received June 19, 2019. Accepted June 24, 2020.

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Abstract

› To cite this article:

Palacios-Rentería, María-Disney (2021). Characterization of the Learning Styles of Elementary School Students of an Ethnic Group. *Ánfora*, 28(50), 249-274.

<https://doi.org/10.30854/anfv28.n50.2021.787>

Universidad Autónoma de Manizales. ISSN 0121-6538 / e-ISSN 2248-6941.

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Objective: to characterize the learning styles of elementary school students from the Emberá Chamí ethnic group from the town of Caimalito, Pereira. **Methodology:** a quantitative approach with a descriptive cross-sectional design was chosen. The information was collected through the CHAEA-Junior questionnaire. **Results:** a preference in reflective and pragmatic styles was evidenced when analyzing learning styles in a discriminatory way. However, when submitting the data to a hypothesis test it was found

* This article derives from the research "Characterization of the learning styles of elementary school students from an ethnic group", carried out within the framework of the Master's degree in Child Development at the Universidad de Manizales. The research is part of the macro-project Cognitive styles, self-concept and self-regulation for learning in school children from different municipalities of the country, which was developed from 2017 to 2019. With identifier <http://ridum.umanizales.edu.co:8080/xmlui/handle/6789/3964>. The author declares that there was no conflict of interest in the execution of the research project.

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that there are no significant differences in learning styles among the participants of the Emberá group. **Conclusions:** the characterization of learning styles in the ethnic population under study presents features similar to those found in other investigations, in which a reiterated trend towards reflective and pragmatic styles is also concluded.

Keywords: Learning styles; Learning process; Ethnic group; Embera Chamí; Basic elementary students.

Resumen

Objetivo: caracterizar los estilos de aprendizaje de estudiantes de básica primaria del grupo étnico Emberá Chamí del corregimiento de Caimalito, Pereira. **Metodología:** se optó por un enfoque cuantitativo con diseño transversal descriptivo. El recabado de la información se realizó a través del cuestionario CHAEA-Junior. **Resultados:** se evidenció una preferencia en los estilos reflexivo y pragmático al analizar de manera discriminada los estilos de aprendizaje. Sin embargo, al someter los datos a una prueba de hipótesis se encontró que no existen diferencias significativas en los estilos de aprendizaje entre los participantes del grupo Emberá. **Conclusiones:** la caracterización de los estilos de aprendizaje en la población étnica objeto de estudio presenta rasgos similares a los hallados en otras investigaciones, en las que también se concluye una tendencia reiterada por los estilos reflexivo y pragmático.

Palabras clave: Estilos de aprendizaje; Proceso de aprendizaje; Grupo étnico; Emberá Chamí; Estudiantes básica primaria.

Resumo

Objetivo: caracterizar os estilos de aprendizagem de alunos do ensino fundamental da etnia Emberá Chamí do município de Caimalito, Pereira. **Metodologia:** optou-se por uma abordagem quantitativa com um desenho transversal descritivo. As informações foram coletadas por meio do questionário CHAEA-Junior. **Resultados:** foi evidenciada uma preferência pelos estilos reflexivo e pragmático ao analisar estilos de aprendizagem de forma discriminatória. Porém, ao submeter os dados a um teste de hipóteses, constatou-se que não existem diferenças significativas nos estilos de aprendizagem entre os participantes do grupo Emberá. **Conclusões:** a caracterização dos estilos de aprendizagem na população étnica em estudo apresenta características semelhantes às encontradas em outras investigações, nas quais também se conclui uma tendência reiterada aos estilos reflexivo e pragmático.

Palavras-chave: Estilos de aprendizagem; Processo de aprendizagem; Grupo étnico; Emberá Chamí; Alunos do ensino fundamental básico.

Introduction

Within the current understanding of the concept of diversity, there is an inconsistency between the normative use and the practical use of the concept. For this reason, the response to diversity is, perhaps, one of the important and difficult challenges that teaching teams face; added to this, is the absence of efforts by some of these actors to recognize the diversity of students in the classroom.

The foregoing infers that the problem is not diversity but that, although the knowledge exists and is incorporated by the teacher, on many occasions a practical lack of activity and ignorance about the study of diversity remains. For Devalle and Vega (2006), "the problem is the way in which the valorization of differences is conceived and put into practice" (p. 14). In this way, understanding diversity is recognizing that everyone is different and that such differences include ways of feeling, thinking, interpreting and perceiving the world, as well as of learning and interacting in learning environments.

According to these authors, the existence of a differentiated curriculum is not enough, since a curriculum that seeks to include and recognize all learning styles, and ways of being and doing within the classroom is of no use; if students continue to be treated as if they learned the in same way; in such a way that if the teacher does not understand this, he will not be able to cope with the diversity of learning styles and rhythms that his students present and, therefore, will not be able to use new teaching strategies that enhance, improve and make good use of the cognitive and ethnic diversity in the classroom.

Diversity gives a singular, unique and unrepeatable character, specific to each subject and in which the school plays an important role as a space for the recognition of rhythms, styles, ways of thinking and personality traits. In this context, the teacher's mission is not only to recognize these differences, but to enhance them, to optimize learning processes and appropriate teaching strategies from the understanding of the particular styles of their students as distinctive and characteristic features that can help to improve their training process.

From the point of view of Hederich (2013), styles constitute "an expression of the personality consisting of a disposition to use certain cognitive abilities" (p. 25); [Own translation] thus, it could be affirmed that stylistics is a characteristic and differentiating feature, insofar as it functions as "a particular way of typifying individual behavior" (Hederich, 2013, p. 25). [Own translation]. In this sense, as proposed by Lozano (2006), styles are a set of preferences, tendencies and dispositions that a person has to do something,

and these are manifested through behavior and various strengths that distinguish an individual from others.

Likewise, in the educational field, “stylistics refers to the identification, appreciation and classification of the various ways of learning and teaching” (Lozano, 2006; cited in Hederich and Camargo, 2015, p. 136). [Own translation]. From this area, due to their applicability, are cognitive styles from authors such as Messick (2010); the teaching styles in the work of González-Peiteado (2013) and Isaza and Henao (2012); there are also thinking styles, pedagogical styles, communication styles, leadership styles, and learning styles.

Regarding learning styles, Curry (1987), through the onion model, as it is known in Spanish speaking, classified the learning style models by differentiating three layers. The first layer, the outer part of the onion, the easiest to observe, contains the instructional and environmental learning preferences, that is, the learning strategies implemented by the student; in the second layer, the preferences about how the information is processed are located - in this case, the preferences are the learning styles; finally, the third layer, the most internal, is related to learning preferences according to personality, that is, cognitive styles (Santaolalla, Gallego & Urosa, 2015).

Based on the above, learning styles can be defined as “the predisposition on the part of students to adopt a particular learning strategy independent of the specific demands of the task” (Schmeck, 1983; cited in Uva, 2017). According to Keefe, 1988; cited in Terrádez, s. f.), learning styles constitute a conglomerate of affective, cognitive and physiological traits, which become solid indicators to recognize how students perceive, interact and respond to the learning environment.

In this sense, learning styles become visible the moment students face the task of learning. Therefore, learning styles are understood as the ideal and preferred form that students have and manifest, consciously or unconsciously, when executing or carrying out a learning task.

Evidence of this is found in the studies carried out by González-Peiteado (2013); Chiang, Díaz and Arriagada (2016); Rojas, Zarate and Lozano (2016); Pantoja, Duque and Meneses (2013).

On the other hand, there was a research carried out in Chile by Cáceres and Vilchez (2012): “Junior Chaea in students of the Talcahuano commune”, in which 1,700 students from grades four to eight participated, from five General Education educational centers Basic (EGB), whose ages ranged between 9 and 15 years of age. This study was carried out with the application of the Sotillo questionnaire (2014).

In Brazil, the research by Coehlo *et al.* (2013), "Analysis between the association of learning styles with gender, age group and intelligence of Brazilian children in elementary education", had a sample of 49 boys and girls from elementary school; The research aimed to analyze the relationship between learning styles, gender, age and intelligence, using the HAQLS instrument, adapted from the CHAEA by Portillo, and translated into Portuguese with 12 questions, four answers and the IQ for intelligence.

The results, in this case, showed that the predominant styles were reflective and pragmatic, and with less influence on the active and the theoretical styles; regarding sex, boys reflected the active style and girls the pragmatic style, and no differences were found between style and intelligence.

In Mexico, the study carried out by Mejía and Jaik (2014), "Learning styles of teachers and students and their relationship with academic performance in primary education", had the participation of 145 students from grades four to six of elementary school from three educational institutions, aged between 9 and 14 years (53 females and 47 males), and the use of the CIEA questionnaire, prepared from the CHAEA questionnaire by Honey and Alonso (2002). There, it was deduced that males have a greater preference for the reflective and pragmatic style than females; It was also evidenced that reflective and theoretical styles prevail at an older age, and that school grade does not determine stylistic preferences. In general, the study showed that the students mostly present the reflective style.

In the case of Peru, the work by Díaz (2017), "Learning styles in primary school students in the district of Sapallanga", had the participation of 76 students, mostly represented by females (40) with 53% and to a lesser extent with males (36) with 47%, whose ages fluctuated from 8 to 14 years, of which 37 belonged to the fourth grade and 39 to the fifth grade. The results of the study indicated that in the fourth grade the majority present auditory style (made up of 17 students), 13 are visual and 7 kinesthetic, while in fifth grade the majority are visual style, with a total of 17 students, and the others presented auditory and kinesthetic styles with the same percentage.

In relation to the two school grades, it was observed that the majority, that is, 39% of students have a visual learning style, 36% have an auditory style and 23% have a kinesthetic learning style. Consequently, it was found that 15 female students had a visual learning style, 16 were auditory and 9 were kinesthetic, and as for the male students, it was found that 15 had a visual style, 12 auditory and 9 kinesthetic (Díaz, 2017).

Similarly, Granados and García (2016) showed that the vast majority of students have marked preferences for the reflective style, with 29.6%, followed by the theoretical style with 25.7%.

In Spain, a study by Sotillo (2014) concluded that, for the most part, students are reflective while the rest show a combination of the theoretical, active and reflective styles.

In Colombia, a study by Ortiz (2013) found that 8% have an auditory style, another 8% have a visual style and 17% have a kinesthetic style. Regarding sex, it was observed that 16% have a kinesthetic style and both female and male students prefer a multimodal style.

On the other hand, the master's thesis conducted by Herrera (2014) in Armenia-Colombia reveals that institutions in rural areas do not reflect a defined stylistic profile. Furthermore, the most predominant styles were the convergent Kolb (1984, 1985), which indicates that in women their stylistic preference was more inclined towards the active and theoretical style and, in men, towards the reflective, theoretical and pragmatic style.

Likewise, in the study by García and Sáchica (2016), they showed that the vast majority of students have marked preferences for the reflective style, followed by the theoretical style, while the active and pragmatic styles presented low preferences.

In the study by Cánchala, Bastidas and Velásquez (2019), "Learning styles in indigenous schoolchildren from Greater Mallama", there was revealed that the predominant style was auditory and the channel with the least preference was visual. One of the conclusions is that most of the students have auditory as their main learning style and, in this case, the highest percentage was observed in girls.

In the municipality of Soledad, department of Atlántico, Colombia, the study by Noriega and Sánchez (2019) showed that there is a direct correlation between the learning styles and the evaluation processes applied by teachers in the classroom. It was noted that in the third, fourth and fifth grades the active experimentation style prevails and, regarding the concrete experience style, no stylistic preference was found. León (2015), for his part, in his study revealed that the reflective style enables the student to obtain a higher academic performance.

Consequently, there appear to be two primary factors in the student's stylistic study. The first, most studies seem to agree that the reflective style is the most recurrent, which clearly causes some curiosity, since it is paradoxical that the study, when conducted on the Hispanic-American population of different countries and diverse samples, yields similar results on the preference towards a specific learning style. On the other hand, the absence or ignorance of teachers to include the concept of diversity and inclusion within their practices could constitute a possible explanation for the first factor.

Hence, the lack of an educational model that privileges and enhances individual learning differences leads to the prevalence of a learning style, which could correspond to the style of the classroom teacher and not necessarily the style of the student. This is the problem that, probably, is generating low academic performance, and school year repetition; especially in the majority in extra-age conditions. These seem to be the factors that cause demotivation in the educational process and, consequently, the continuous absences to class.

This problem, together with the scarce economic income, perhaps are the causes that have motivated parents and/or guardians to make the decision to introduce the male population from the age of 13 to work picking coffee and the female population to marry them when they reach 15 years; all this, if they do not advance in the academic processes.

Due to all of the above, this research article aims to address the characterization of the learning styles of an ethnic group of Embera children. Studying the learning styles in this population group leads to identifying the stylistic preferences of the students, in order to generate theoretical-practical input that allows teachers to apply a specific and differential treatment to each student depending on their style. It could also help students to know their styles and be motivated to use others, ensuring that teachers adopt appropriate pedagogical strategies to obtain an effective and efficient educational work that counteracts the high rate of failure and academic repetition, unschooling, the population with extra age, school dropouts and demotivation of parents and/or guardians, fostering a different perspective on education.

A theoretical-practical input that at the same time contributes to the comprehensive education of individuals, who interact with the other/s, encouraging a good exchange of knowledge and greater participation, in which different values are promoted, thus achieving a healthy coexistence based on respect and acceptance of the other.

Thus, the present paper seeks to characterize the learning styles of elementary school students of an ethnic group according to age and sex, in an educational institution in the township of Caimalito, Pereira (Colombia). It is expected to confirm whether there is a stylistic preference in Emberá children or if this preference is actually the product of their adaptation to a specific educational context that follow standardized educational models.

Methodology

This research was approached from an empirical analytical study with a quantitative approach and a descriptive cross-sectional design that is understood as the type of design in which data are collected at a single moment and, based on them, are specified, in a descriptive, properties and important characteristics of a certain population Hernández, Fernández and Baptista (2014).

The study was carried out in three moments. At first, a pilot test was carried out in order to observe the relevance of the instrument for this ethnic group, according to the degree of linguistic complexity, in terms of the lexicon. Subsequently, the CHAEA-Junior questionnaire was applied, in its short version adapted by Sotillo (2014). In the third phase, the database was prepared (organization of variables in Excel for their organization, debugging and coding) and, later, its analysis was carried out, using the IBM SPSS version 22 Software.

Sample

The population was composed of (N=23) students from the Emberá community with an observed average age of (M=11.2 years, SD=2,059). In the participants, the male sex prevailed (65.2%) over the female sex (34.7%). The participants belong to an educational institution in the Caimalito district of the municipality of Pereira (Risaralda, Colombia) of the Emberá Chamí indigenous reservation in the fourth and fifth elementary school grades. Regarding social conditions, many of the students present vulnerable conditions and come from municipalities with high levels of displacement.

This ethnic community depends on agriculture and handicrafts as primary economic activities. The family structure is extensive, most of them can live around four families in a single house. In turn, to learn to read and write in their native language "Emberá" they do it through the belief "*jiru pota war*" (the child born from the leg). Their myths relate not only the origin of the world, animals, plants and man, but all the events that make man of this time. The belief "*jiru pota war*", along with the origin of water, is considered fundamental to their identity.

It should be noted that although the CHAEA-Junior questionnaire was not designed to characterize ethnic groups, since these children are immersed in the Spanish-speaking culture and are part of educational processes supported by the State, the vocabulary as well as their contextual use, did not represent an additional difficulty for the participants to read, interpret and understand.

Data Collection Instruments

The CHAEA-Junior Learning Styles Questionnaire (Annex 1) by Honey-Alonso (2002), in the short version adapted by Sotillo (2014) for primary school populations was used as the only information gathering instrument.

Instrument Characterization

The CHAEA-Junior is the result of the research carried out by Sotillo (2014): "Learning Styles in Primary School students: Diagnosis and pedagogical proposal". The CHAEA-Junior was adapted for 4th and 5th Primary school students; however, its suitability was also seen, throughout the research, for students of the First Cycle of Compulsory Secondary school, that is, grades 6 and 7. The CHAEA-Junior is made up of (44) items which contain statements about the preference for learning situations or personal interest. The answers are obtained through a dichotomous nominal scale where the student must mark the sign (+) if they agree and the minus sign (-) if they do not agree. The version of the CHAEA-Junior presented by Sotillo (2014) does not require the scale to find the different style, obtaining this by the sum of direct scores.

The instrument is written in simple language with colloquial terms so that it can be understood and read by children between the ages of 9 and 14, from a syntactic and semantic point of view. The distribution of the items is random and is subdivided into four groups of 11 items, through which it is possible to characterize the four learning styles: Active, Reflective, Theoretical and Pragmatic (Granados and García, 2016).

The absolute score is obtained, according to each style, with a single range value from (0 to 11), obtained from the direct sum of the response. The highest value will be the dominant preference and the next highest one is the next predominant style. It should be added that to validate the questionnaire, a panel of 5 experts was used (the doctors: Daniela Melaré, Mari Luz Cacheiro, María Isabel Adán León and the Doctors: Pedro Martín Geijo and José Luis García Cué), researchers with wide experience in the Learning Styles.

This questionnaire has been validated in Colombia by the following researchers: Varela (2014) from Antioquia; Gómez, Jaimes and Sereviche (2017) from Cartagena; Acevedo, Cavadia and Alvis (2015) from Cartagena; Ángel and Alonso (2012) from Bogotá; Casadiego (2015) in Cesar; Mendoza (2012) in Cali and, in Manizales, by Granados and García (2016).

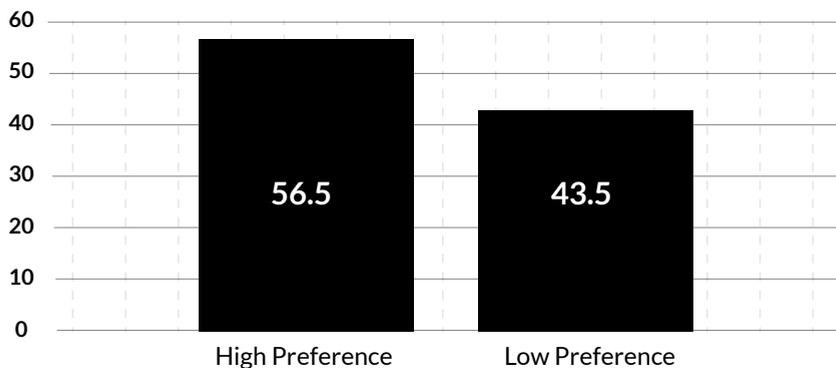
The results of the characterization of the ethnic group will be presented in a discriminatory way for each style. This, in order to identify the participants in detail in relation to each of the learning studies proposed by Honey and Alonso (2002). After this discrimination for each of the styles, the characterization of the stylistic behavior of the participants is shown. Finally, A test to determine whether there are significantly statistical differences between each of the stylistic profiles found and thus be able to establish whether it is possible to talk about a style of preference in the learning of Embera children or on the contrary, no particular preference is observed.

Results

Characterization of the Learning Style Based on High / Low Preference

Figure 1 shows a small difference between the preference for active learning in the participants. According to the results, a difference between high and low preference of 13% was observed. This leads to infer the absence of preference towards this style of the participants. See figure 1.

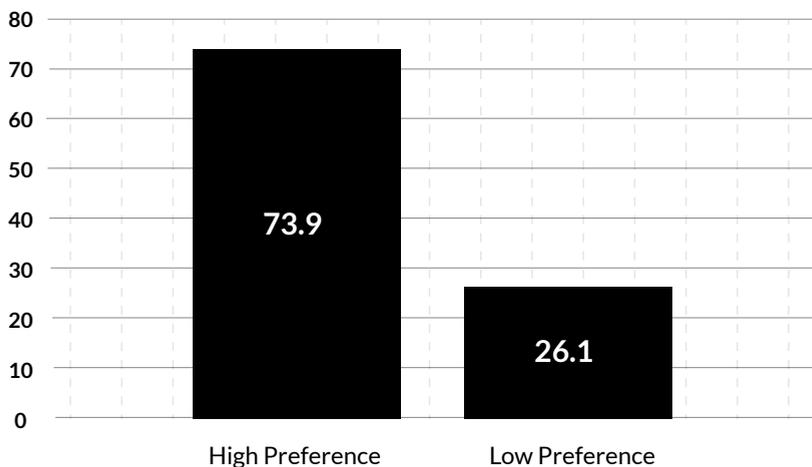
Figure 1. Student Distribution for Active Learning Style



Source: Author's

Regarding the reflective learning style, the high / low preference exhibited a difference of 47.8% amidst the participants. This difference indicates a possible tendency or preference of the participants towards this learning style (figure 2):

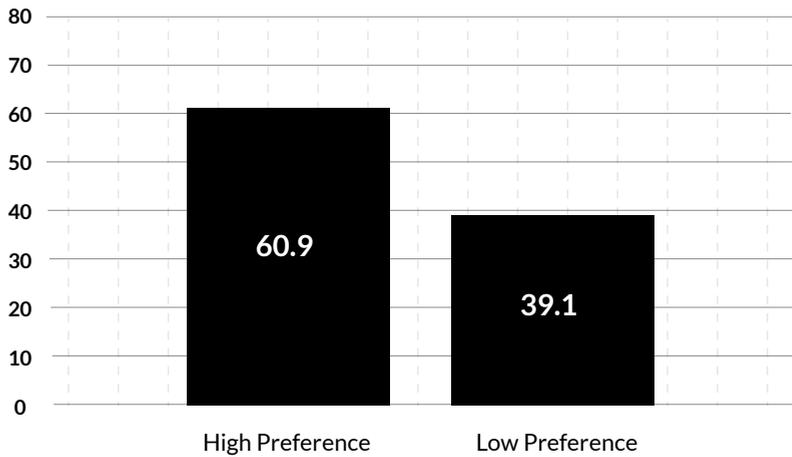
Figure 2. Student Distribution for Reflective Learning Style



Source: Author's

The theoretical learning style exhibited a difference of 21.8% in relation to the high / low stylistic preference. This result allows us to consider that there is no marked difference between the population in relation to the theoretical learning style (figure 3).

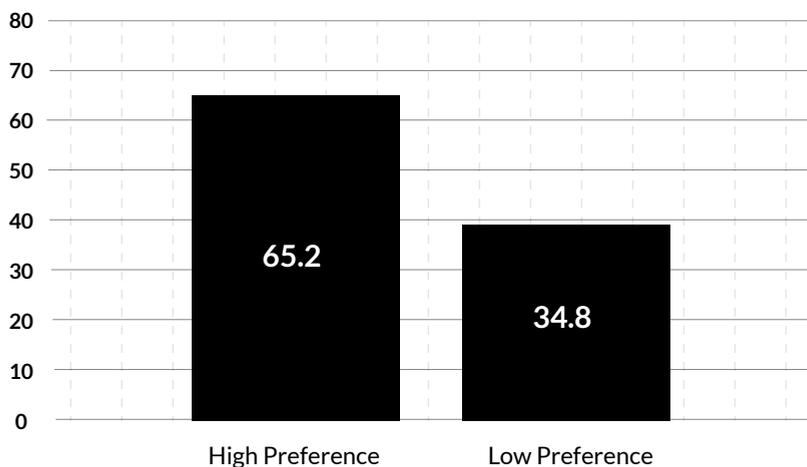
Figure 3. Student Distribution for Theoretical Learning Style



Source: Author's

Finally, the results for the high / low pragmatic style preference yielded a difference of 30.4% amongst the participants. This leads to build a second stylistic trait of the participating ethnic community (figure 4):

Figure 4. Student Distribution for Pragmatic Learning Style

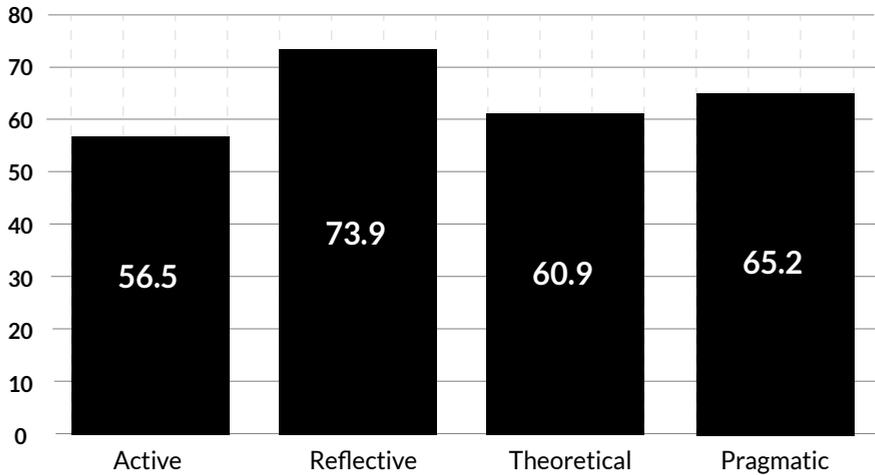


Source: Author's

General Characterization of High / Low Learning Style Preferences

Regarding learning style preference, general results allow us to clearly observe a tendency of the participants towards reflective (73.9%) and pragmatic (65.2%) learning styles. In general terms, the learning style profiles do not show great differences, although results do suggest a certain trend. (Figure 5).

Figure 5. Student Distribution for Pragmatic Learning Style



Source: Author's

Although the results on the description of each of the learning styles in a discriminatory and general way evidence a stylistic learning profile of the children of the ethnic group with an emphasis on the reflective and pragmatic learning styles, this study aimed at verifying whether there were significant differences between the learning styles reported by the students. A hypothesis for the existence of a learning style profile in the ethnic group of participating children was formulated.

The hypothesis formulated was:

H⁰ The group of participants does not show a different preference in their learning styles.

H¹ The group of participants show a different preference in their learning styles.

The hypothesis was tested through the Kruskal-Wallis test because it includes more than two variables. This test is used when you want to test whether or not several samples (K) come from the same population. In this particular case, whether or not the learning styles are the same for the entire ethnic group of participating children.

The results in the hypothesis test through the non-parametric method of KS samples yielded a *P* value greater than ($P > 0.05$) for each of the learning styles which implies the acceptance of the null hypothesis. In other words, there is no difference amidst the preferences of learning styles for the participating ethnic group in the results of the present study. The results of the KS-samples test for the active learning style yielded a value of ($.469$), for the reflective learning style of ($.734$), for the theoretical learning style of ($.644$) and for the pragmatic learning style of ($.618$). These results show that no style is particularly preferred for this participating ethnic group (Table 1):

Table 1. Learning Styles According to Age

Test statistics ^{a,b}				
	Active learning style	Reflective learning style	Theoretical learning style	a learning style
Chi squared	6.625	4.389	5.133	5.344
G1	7	7	7	7
Asymptotic significance	.469	.734	.644	.618
a. Kruskal-Wallis Test.				
b. Grouping variable: age				

Source: Author's

Discussion

Although the hypothesis test denied the possibility to identify a stylistic preference in the ethnic group of Embera Chamí children based on the results of the KS-samples test, this discussion will be carried out in relation to the two highest frequent learning styles of preference (Reflective 73.9% and Pragmatic 65.2%). These results do not allow us to identify the establishment of a distinct learning style for the participating community of Emberá children, but they can lead to an understanding of the impact that the state education process has had on them. This result can be compared with other studies that have characterized the learning styles in students of public educational institutions.

These results can be contrasted with the findings of Coehlo *et al.* (2013) in their research carried out in Brazil in which they found a predominance of reflective and pragmatic learning styles and a lesser influence of active and theoretical learning styles. Similarly, in Chile, Cáceres and Vilchez (2012) applied the same questionnaire and observed a stylistic preference for the reflective learning style (34%) and the pragmatic one (10%).

In the same sense, the partial results of this article are similar to those obtained by Mejía and Jaik (2014) in Mexico, who found that the students - mostly - present a reflective learning style preference. Similarly, in Armenia (Colombia), Herrera (2014) applied the Kolb instrument and obtained a marked trend of the reflective learning style in the participant population.

Granados and García (2016) reported similar results to those here found coinciding that the reflective learning style (29.6%) is one of the most frequent in primary school students in 4th and 5th grade. Likewise, the results seem similar to those obtained by León (2015) in Colombia, who showed a predominance of the reflective learning style (53%) with respect to the others learning styles.

Similarly, the results of Rodríguez (2014) suggest that the reflective learning style, in general, scores highest among the learning styles when performing the characterization of learning styles. In the same sense, Chiang *et al.* (2013) found that the reflective learning style is associated with the type of students who spend more time thinking about how to solve a learning problem or performing a task.

On the other hand, Ferrés-Gurt, Marbà-Tallada and Sanmartí-Puig (2014) found that the reflective learning style seems to be associated with students whose abstraction and overthinking generate adverse influences in their academic performances.

Sotillo (2014) suggests that the learning styles of greatest recurrence in elementary school students imply to focus on reflective and theoretical learning styles. These could confirm that perhaps it is not a question of an authentic learning style in the students, but of a certain tendency of the school system in which they are, and such a system has been derived from an eminently encyclopedic tradition that still privileges memory; hence the theoretical feature and reflection as the basic mechanism of teaching.

Conclusions

It is concluded that the Embera-Chamí ethnic group of children shows a tendency towards reflective and pragmatic learning styles. This preference suggests the result of their school system without a difference or ethnic preference in terms of seeking the development of the cognitive and learning capacities of the students.

Classrooms have a high number of community children - even without any belonging to a specific ethnic group - in master classes they obey based on the demands of teachers who teach their classes in a general way and without positive recognition of diversity or inclusion. This fact reflects the state education model that is part of educational reforms led by international organizations, which could explain the recurrence found in studies on the stylistic learning preference: There seems to be a coincidence in the reflective-pragmatic learning styles as the most frequent one, which in Kolb terms (1984, 1985) is explained as the child's adaptation to the demand and the need for adaptation to the teacher's teaching style, which is generally reflective-pragmatic.

This is supported by the hypothesis test in which no stylistic difference was reported in the high / low preference for learning. This could endorse the idea that the most common learning style is a reflection of the teacher's teaching style. In this way, it would be natural for that preference to vanish in children if it is tested with a more rigorous test in which it is asked, under a certain level of confidence, to establish whether that preference exists or not, as shown in the present paper.

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Annex

Annex 1. CHAEA-Junior Questionnaire of Learning Styles

More (+)	Less (-)	Ítem
+	-	1. I have a reputation for saying what I think simply and directly.
+	-	2. I indeed distinguish what is right and wrong, good and bad.
+	-	3. I often act without considering the consequences.
+	-	4. I am always interested in knowing what people think and why they act.
+	-	5. I really appreciate practical gifts.
+	-	6. I try to be aware of what is happening around me.
+	-	7. I feel proud in doing a thorough job.
+	-	8. I am keen on being self-disciplined with my meals, my studies and regular exercise.
+	-	9. I am attracted more to novel, unusual ideas than to practical ones.
+	-	10. I accept and adapt to rules, If I can reach what I want.
+	-	11. I listen more than I speak.
+	-	12. In general, I tend to be neat because I can't stand the mess.
+	-	13. Before doing anything, I pay careful attention to pros and cons.

More (+)	Less (-)	Ítem
+	-	14. I am more interested when I do new and different activities.
+	-	15. In discussions, I like to go straight to the point.
+	-	16. At games, I put aside my feelings, because winning is the most important.
+	-	17. I feel comfortable among spontaneous and fun-loving people, although sometimes it brings me problems.
+	-	18. I tend to be open about how I am feeling.
+	-	19. I'm usually one of the funniest at parties.
+	-	20. I like to ponder new alternatives to get to a solution.
+	-	21. I prefer useful ideas that make me daydream.
+	-	22. I pay careful attention to detail before drawing conclusions.
+	-	23. I attempt to be perfectionist.
+	-	24. I listen to others' opinions before putting my own view forward.
+	-	25. In discussions, I enjoy watching the plotting and scheming of the other participants.
+	-	26. Quiet and thoughtful people tend to make me feel uneasy.
+	-	27. I am often bothered by people who want to rush up things to meet a deadline.
+	-	28. In groupwork, I contribute with new and spontaneous ideas.
+	-	29. More often than not, I believe that rules are there to be broken.
+	-	30. On balance, when I am with my friends, I talk more than I listen.
+	-	31. I believe that rational and logical thinking should win the way.
+	-	32. I tend to be irritated by those who say unimportant or crazy things.
+	-	33. I like to verify that things work in practice.
+	-	34. I reject original and spontaneous the ideas if useless.
+	-	35. I often reflect on the consequences of my actions to plan the future.

More (+)	Less (-)	Item
+	-	36. Quite often, if I want something, it does not matter how I get it.
+	-	37. I get irritated with crazy things or people.
+	-	38. I am used to thinking on topics and problems.
+	-	39. I am usually one of the people who puts life into a party.
+	-	40. Those who know me tend to think I am not very sensible to their feelings.
+	-	41. I find it very difficult to plan my tasks and prepare for my examinations.
+	-	42. In discussions, I am interested in knowing what others think.
+	-	43. It feel irritated when people do not take things seriously.
+	-	44. I often realize of better ways of doing things.

