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Children with High capacities: Analyses of the relatives' variables involved in the development of the potential

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Abstract

Introduction. There are different family's factors that influence in the transformation of the potential of the students with high capacities, the studies have found that the occupation of the parents, the time they dedicated to the children, the upbringing practices and the expectations are aspects that intervene in the development of the capacities. The objective of the work was to recognize the variables that characterize the parents of the students with high capacities of the primary education of the marginal urban zone.

Method. The work was done in three primary schools located to the orient of Mexico City. 28 children with high capacity, theirs parents and 24 teachers participated. There were applied to the students, test to evaluate their intelligence, creativity, compromise with the homework and the academic concept. The teachers answered a list of nominations and the parents answered a checklist to recognize the characteristics of the family.

Results. It was observed that there are a 4% of the students with high capacities that lives in the vulnerable zones. With the Spearman Rho correlation, it was observed that regardless of the socioeconomic level of their parents, they try to provide them additional activities to their children to favor their capacities. Mothers' schooling helps them look for additional, low-cost alternatives. Likewise, the time that the mothers dedicate to do the homework affects in a negative way the children's academic self-concept.

Discussion and Conclusion. It was achieved the recognition of some family variables that favors the potential of the students with high capacities. It necessary to continue with this type of investigations to recognize which are the parent's characteristics and provide them the additional support to achieve favors an optimum children development.

Key words: Intelligence, creativity, characteristics of the parents, academic self-concept, compromise with the homework.

Resumen

Introducción. Existen diferentes factores familiares que influyen en la transformación del potencial de los alumnos con altas capacidades, los estudios han encontrado que la ocupación de los padres, el tiempo que se dedica a los niños, las prácticas de crianza y las expectativas son aspectos que intervienen en el desarrollo de las habilidades. El objetivo del trabajo fue reconocer las variables que caracterizan a los padres de alumnos con altas capacidades de educación primaria de una zona urbano marginal.

Método. Se trabajó en tres escuelas primarias públicas ubicadas al oriente de la Ciudad de México. Participaron 28 niños con altas capacidades, sus padres y 24 profesores. A los alumnos se les aplicaron pruebas para evaluar su inteligencia, creatividad, compromiso con la tarea y el autoconcepto académico. Los maestros contestaron una lista de nominación y los padres respondieron una lista de cotejo para reconocer las características de las familias.

Resultados. Se observó que existe un 4% de estudiantes con altas capacidades que viven en zonas vulnerables. Con la correlación de Spearman Rho, se observó que independientemente del nivel socioeconómico de los padres, ellos tratan de proveerles actividades adicionales a sus hijos para favorecer sus capacidades. La escolaridad de las madres ayuda a que busquen alternativas adicionales y de bajo costo. Asimismo, el tiempo que ellas dedican para hacer la tarea afecta de forma negativa al autoconcepto académico de los niños.

Discusión y conclusión. Se logró reconocer la influencia de algunas variables familiares que favorecen el potencial de los estudiantes con altas capacidades. Es necesario continuar con este tipo de investigaciones para reconocer cuáles son las características de los padres y proveerles apoyos adicionales para lograr favorecer un óptimo desarrollo de los niños.

Palabras Clave: inteligencia, creatividad, características de los padres, autoconcepto académico, compromiso con la tarea

Introduction

During years the investigators had been interested in the study of the students with high capacities. Such is the case of Galton, who mentioned that the heritage was the principal factor to explain lo high intellectual levels. Others highlighted the influence of the personal variables such as the motivation, self-concept, persistency, auto control and leadership that are linked with the development of the skills (Mönks and Van Boxtel, 1992; Renzulli, 2011). The most recent approximations have recognized the relevancy of the family context and school to favor the cognitive capacities of the children (Gagné, 2012; Piirto and Fraas, 2012). To Castellanos, Bazán, Ferrari and Hernández (2015) there are different relatives' factors that influence in the transformation of the students' potentials. So, they have considered that the presence of different talents must be to the dynamic configuration of a heterogeneous process set, qualities and psychological formations in interaction with the variables of its context. Even where there is a great diversity in the families, the data has reveal some important aspects that promote the high capacities such the parent's occupation, the time that the parents dedicate to the children, the planification and instruction, the breeding practice and the expectations serve model for academic success.

In relation with the students that presents high capacities, it has been observed that the family plays a transcendent role in the development of their capacities, so it is necessary to adopt an ecologic approach for the identification of said population (Mönks and Van Boxtel, 1992). Parents constitute a value source of information; as usual their observations are objective and precise, especially in the evolutionary processes. In living together with their children different situations, they can appreciate behaviors that are not seeing in a school context, they know their tastes and interest, but sometimes they do not know that they have high capacities or on the contrary they think that they are talented without really being so (Blanco, 2001). Authors as Gómez and Valadez (2010) Martín (2004) and Olszewski-Kubilius (2008) indicated that the parents of the children with high capacities in occasions experience tension before the increase of the demands that its mean being a student with those characteristics, so it's frequent to find that they are overwhelmed for the restlessness, impatience and questions of their children, which can

generate a deterioration in the relationship with them, also it is possible that the progenitors encourage the anxiety in the children if they have very high expectations in terms of its performance in their real school.

The above mentioned, reflects the fact that the family environment is of great importance for the identification and development of the skills of students with high capacities. It's known that the parents provide information that helps to understand their children's talents and interests; but they also need proposals to provide educational alternatives that will enrich their children's environment. In this regard, Gagné (2012), Mönks and Van Boxtel (1992), Piirto (1999) have outstanding that it is necessary to consider a multidimensional vision to explain the characteristics of students with high capacities since, like any other individual, they develop and interact in social settings and experience complex evolutionary processes that must be studied. In this way, the present work is based on the theoretical model of triadic interdependence designed by Mönks and Van Boxtel (1992) who broadened the vision proposed by Renzulli (1986) by mentioning that the students with outstanding aptitude are those who demonstrate a superior cognitive capacity, high levels of creativity and motivation, as well as establishing another important element to academic self-concept and three specific social frameworks: school, classmates and family.

For the identification of this population, it has been considered mainly the tests to evaluate intelligence, others proposals have indicated that there are different variables that influence the presence of potential, such as creativity, academic self-concept and commitment to the task (Bernal, Esparza, Ruiz, Ferrando and Sainz, 2017; Espinoza and Reyes, 2008; Ferrando, Prieto, Ferrándiz and Sánchez, 2005; Manzano and Arranz, 2008; Preckel, Goetz, Pekrun and estudios de Acle and Ordaz (2010), Burney and Beike (2008), Ocampo and López (2011), Pérez and González (2007), Sarouphim (2008), Valadez, Pérez and Beltrán (2010) Kleine, 2008; Rudasill, Capper, Foust, Callahan and Albaugh, 2009; Renzulli, 1986; Schick and Phillipson, 2009). Based on these alternatives and with the purpose of including other factors that act as moderators, the evaluation of some aspects of the family has been incorporated because the development of high capacities depends essentially on the social environment, support,

understanding and adequate stimulation of parents (Borges, Hernández and Rodríguez, 2006; Chan, 2005; Garn, Matthews and Jolly, 2010; Gómez and Valadez, 2010; Manzano and Arranz, 2008; Mönks and Van Boxtel, 1992; Piirto, 1999).

The above charges particular importance when working in marginal urban communities, with high social and economic vulnerability, as reported by the studies of Acle and Ordaz (2010), Burney and Beike (2008), Ocampo and López (2011), Pérez and González (2007), Sarouphim (2008), Valadez, Pérez and Beltrán (2010) there are students with high capacities who are not identified because there are variables associated with the conditions of poverty that affect their educational experiences, which contributes to the low scores of the intelligence test and the deterioration of their talents as a result of which they are in a situation of educational and social risk. It is therefore suggested that identification be carried out based on multidimensional models that include a variety of personal and family factors, mainly in those groups that are in vulnerable or at-risk areas.

Objective and hypothesis

From the above, the objective of the work was to recognize the variables that characterize the parents of students with high capacities of primary education in a marginal urban zone. In accordance with the empirical evidence (Borges, Hernández and Rodríguez, 2006; Chan, 2005; Garn, Matthews, Jolly, 2010; Gómez and Valadez, 2010; Manzano and Arranz, 2008) it is recognized that there are some characteristics of the family (structure, socioeconomic level, religion, family support) in specific of the parents (age, time dedicated to the children, schooling, occupation) that act as moderators of the high capacities of the students.

Method

Participants

It was used an non-probability Intentional sampling. There were identified 28 children (18 women and 10 men) that presented high capacities, with an range age of 8 to 11 years ($M_{age} = 9.94$, $SD = 0.840$), two students of third grade, 10 of fourth and 16 fifth grade of primary school. Also the parents of these students participated. As for the data from the mothers, they were found

to have an age range of 24 to 49 years ($M_{age} = 37.96$, $SD = 6.028$). In the case of the fathers, their age was between 32 and 54 years ($M_{age} = 42.36$, $SD = 6.170$). In addition, 24 teachers collaborated, for each grade level there were eight teachers, with an average of 18 years of teaching experience.

Instruments

Raven's Colored Progressive Matrices Test (Raven, Court and Raven, 1993): Measures the child's intellectual capacity through the factor "g"; it consists of 36 problems, distributed in three series A-AB-B, which are ordered from least to most difficult, the correct answer of each exercise is mixed among five other erroneous. Reliability was performed by means of a test-retest and was obtained a $r = 0.774$, also was made a Cronbach Alpha of 0.88, both results supporting the consistency of the instrument (Chávez, 2014).

Test of Creative Thinking Version Figural "A" (Torrance, 2008): Its purpose is to evaluate the creative productions of people with three activities that are rated with the indicators of fluidity, originality, elaboration, titles and closing. Construct validity was obtained and showed a reliability index of 0.90 obtained by Cronbach Alfa (Zacatelco, Chávez, González and Acle, 2013).

Scale of Task Commitment (Zacatelco, 2005): Assesses the levels of intrinsic motivation in curricular and extracurricular areas through the following indicators: interest, persistence and effort. It consists of 18 Likert reagents, with six response intervals. The instrument was validated in three schools of the Iztapalapa delegation with a reliability of 0.79 obtained by an Cronbach Alfa.

Test of Academic Self-concept (Chávez, 2014): It consists of 36 items with Likert format, helps to measure the student's perception of his or her performance in school subjects: mathematics, Spanish, history, natural sciences, physical and artistic education. The instrument obtained a reliability of 0.848 through a Cronbach Alpha.

Teachers Nomination to Identify Outstanding Potential (Zacatelco, Chávez and González, 2013): The objective is to know the perception of teachers based on the factors proposed by Renzulli (commitment to the task, superior ability and creativity) and a fourth dimension was added, corresponding to the socio-affective aspects. It consists of two parts, the

first part contains the data of the teacher and the student, the second part contains 37 dichotomic items. The total reliability of the test was 0.934 obtained by a Cronbach Alpha.

Checklist for parents of the family (Chávez, 2014): Developed for this research with the purpose of knowing sociodemographic aspects of the parents' family such as: age, schooling, occupation, religion, marital status, family structure, time spent on the child's tasks, some aspects related to their children and socioeconomic level, this last was obtained through the classification proposed by the Mexican Association of Market and Public Opinion Agencies -AMAI- (2017) in which six levels are considered:

- *A/B upper class*: it is the segment with the highest standard of living, the profile of the head of the family is made up of people with undergraduate or postgraduate education, their own homes with luxuries, all the services and comforts.
- *C+ upper middle class*: Includes people whose income and/or lifestyle is slightly higher than middle class; the profile of the head of household in these households is made up of individuals with a full degree, with their own homes that include some luxuries and have all the comforts.
- *C middle class*: In this category are the people who have a high school education, have their own homes and with some comforts.
- *D+ lower middle class*: This includes households with incomes and/or lifestyles slightly lower than those of the middle class; they are those who have a better style within the lower class; the profile of the head of the family is with a technical, secondary or full primary school education. They have their own house, rented or social interest properties.
- *D lower class*: this is where individuals with primary education level are located, who live in their own or rented neighborhoods and units of social interest.
- *E lowest class*: The head of the family usually has an incomplete primary school, sometimes the people in this segment usually lack property, so they rent generally austere housing and live in the same place for more than a generation

Procedure

The following was done to recognize students with high capacities: Permission was sought from the principals and teachers of the three primary schools. The parents signed the informed consent and the children's consent was obtained. The initial population was 670 children (356 women and 314 men) with an average age of 9. 18 (SD = 0. 997) in grades 3 to 5. The application of the instruments was carried out for four weeks for each school, the general procedure being as follows:

- 1) Teachers were contacted to answer the *Teacher Nomination List*, after the children, taken the *Creative Thinking Test*.
- 2) During the second week the *Test of Task Commitment* was answered.
- 3) In the third week, the *Raven Progressive Matrix Test* was solved.
- 4) In the fourth week, students took the *Academic Self-Concept Test*.

It was designed a Data Base in the statistical program SPSS version 20, capturing the names, ages, sex and scores obtained on the instruments by each of the students. The minimum, maximum, mean, standard deviation and 75th percentile values were found. It should be noted that, for the identification of students with high capacities, children who obtained percentiles equal to or above the 75th percentile were taken into account in three of the five tests applied, since according to several authors it is the score that indicates a clear outstanding profile (Mönks and Van Boxtel, 1992; Renzulli, 2011; Prieto, 1999; Zacatelco, 2005). Subsequently, the children detected were organized into three categories according to the number of variables in which they obtained percentiles equal to or greater than 75:

- Group 1: Students with high scores on all five instruments.
- Group 2: Those who obtained high estimates in four variables.
- Group 3: Children with scores above or equal to 75th centile in three of the tests.

A checklist was drawn up for parents in order to find out their characteristics, in order to design the checklist, some dimensions were considered that have been reported in different studies with students with high capacities (Borges et al., 2006; Chamberlin and Chamberlin, 2010; Elices, Palazuelo and Del Caño, 2006; Gómez and Valadez, 2010; Hernández and Borges, 2010; Manzano and Arranz, 2008; Morawska and Sanders, 2009; Zeynep and Bayindir, 2009).

After the identification of the students, the parents were contacted to attend a meeting and asked for their assistance in answering the checklist.

Data analysis

Based on the information gathered, a database was developed in the SPSS version 20 statistical program, which included the scores of the instruments of the children with high capacities, as well as the data provided by the parents in the checklists. Subsequently, the following analyses were carried out: descriptive statistics to determine the characteristics of the sample, the nonparametric Kruskal-Wallis test to determine differences in the age of the parents between the three groups of students with high capacities, a Spearman Rho correlation was used to determine the association between the variables of the study.

Results

To identify and recognize the characteristics of children with high capacities, the minimum, maximum, mean, standard deviation and 75th percentile scores of the instruments used were obtained: *Progressive Matrix Test*, *Creative Thinking Test*, *Test of Commitment to Task*, *Test of Academic Self-concept* and *Teacher Nomination List* (Table 1).

Table 1. Score of the test used in the identification of students with high capacities

INSTRUMENTS	Score		MEDIA	S.D.	PERCENTIL 75
	Minimum	Maximum			
Raven Progressive Matrix Test	2	36	26.32	5.8	31
Creative Thinking Test	7	94	50.86	15.05	61
Test of Task Commitment	28	106	77.12	15.33	89
Test of Academic Self-concept	55	217	159.92	22.63	175
Teacher Nomination List	0	37	16.13	11.33	26

The analysis of the data showed that, of the 670 students in the sample, 28 were located with high capacities, which corresponds to 4% of the population. It should be noted, that three groups were formed with these students according to the number of variables in which they obtained scores equal to or higher than the 75th percentile. In this sense, group I was settled for ten children who presented high estimates in the five tests, group II placed nine students with

values above the 75th percentile in four dimensions and group III was made up of nine students who obtained high scores in at least three of the instruments used.

Characteristics that the parents indicated regarding their children with highly capacities.

Table 2 shows the information provided by parents regarding their children's characteristics. In this sample it was found that group I was made up of seven first-born children and three were born second. In group II, three were reported to be first-born, one was second, four were third and one was fourth. For group III, two were first-born, two in the second, two in the third and one in the fourth place. These data are interesting and coincide with the findings of Kristensen and Bjerkedal (2007), Ordaz and Acle (2013) Zacatelco and Acle (2009), Piechowsky and Colageno (1984) who reported that it was more common to find high capacity characteristics in first-born children.

On the other hand, one of the questions asked was about what their children were emotionally like. The data revealed that, in the first group, seven of the parents considered them sensitive and three kind. In the second, five children were characterized as sensitive, three as shy and one as hyperactive. Regarding group III, the parents indicated that seven were sensitive and two were kind (Table 2). In this sense, authors such as Piechowsky and Colageno (1984) have deepened into the sensitivity of these students and pointed out that this factor contributes to the way they handle and experience the intensity and complexity of feelings.

Table 2. Characteristics of the children's outstanding for group

	GROUP I	GROUP II	GROUP III
Place occupied between brothers	- 7 First-born - 3 in second	- Three first-born - One at a time - Four in the third - One-fourth	- Two first-born - Two in second - Four in the third - One in four
How they consider their children to be	- Seven sensitive - Three kind	- Five sensitive - Three shy - One hyperactive	- Seven sensitive - Two kind

Characteristics of mothers

The results of the characteristics evaluated in the mothers according to the high capacity group of their children are shown in Table 3. With respect to the age variable, it was observed that the mothers of group I had a lower average age compared to those of the other two groups, the nonparametric test Kruskal Wallis showed that there were no significant differences ($F(2, 32) = 0.313, p < 0.05$). As for the occupation of mothers, it was found that in group I, eight were dedicated to the home and two were professionals. In the second group, six were housewives, one was a merchant and the other a professional. In group III, four took care of the home, three mentioned being shopkeepers, a secretary and a maid. In schooling, it was found that in group I, three completed secondary school, three completed high school, one had a technical career and three completed their bachelor's degrees. In group II, five had secondary school, one high school, one technical career, and two with bachelor's degrees. In group III, there were three with secondary school, three with high school, one with a technical degree and two with a bachelor's degree (Table 3).

Table 3. Characteristics of the mothers by group of children with high capacities

GROUP IN WHICH THE MOTHERS WERE PLACED			
	GROUP I	GROUP II	GROUP III
Average Age	- M= 35.6	- M= 37.67	- M= 40.67
Scholarship	- Three with secondary school	- Five with secondary school	- Three with secondary school
	- Three with high school	- One with high school	- Three with high school
	- One with technical career	- One with technical career	- One with technical career
	- Three with bachelor's degrees	- Two with bachelor's degrees	- Two with bachelor's degrees
Occupation	- Eight to the home	- Six to the home	- Four to the home
	- Two professionals	- One merchant	- Three merchant
		- One professionals	- One secretary
Time spent doing homework			- One maid
	- Nine from 1 to 5 hours	- Eight from 1 to 5 hours	- Four from 1 to 5 hours
	- One does not do	- One does not do	- Four from 6 to 10 hours
			- One does not do

In relation to the time the mothers dedicate to do the homework with their children, it was observed that nine mothers in group I and eight in group II spent between one and five hours on school activities, compared to those in group III, where only four mothers reported the same amount of time (Table 3). These data were interesting because they showed that even when the mothers of children with high educational and occupational levels do not have high educational

or occupational levels, they provide them with the time required to help them adequately in their studies (Borges et al., 2006).

Characteristics of the fathers

Table 4 shows the characteristics of the parents according to the high capacity group in which their child was placed. It was found that in the case of the age the mean scores of the fathers of the three groups were similar, the nonparametric test Kruskal Wallis showed that there were no significant differences [$F_{(2, 32)} = 0.930, p < 0.05$]. In the occupation of the fathers, it was observed that in group I, there are two teachers, a professional, a driver, a printer, an employee, a worker, an office worker, a transporter and an unemployed person. In the second group, there were two employees, a tradesman, a professional, a bricklayer and a mechanic; in the third group, there were three tradesmen, four employees and one worker. The educational level of the fathers was as follows: in the first group, one completed primary school, one completed secondary school, two completed high school, four completed undergraduate and two completed master's degrees. In the second group, two fathers had high school, one with a high school diploma, another with a technical degree and three with a bachelor's degree. Data reported by fathers in group III indicated that one had a primary school, two had a secondary school, two had a high school diploma, two had a technical degree and one had a bachelor's degree (Table 4).

<i>Table 4. Characteristics of the fathers by group of children with high capacities</i>			
GROUP IN WHICH THE MOTHERS WERE PLACED			
	GROUP I	GROUP II	GROUP III
Average Age	- M= 42	- M= 42	- M= 43.13
Scholarship	- One with primary school	- Two with secondary school	- Uno with primary school
	- One with secondary school	- One with high school	- Two with secondary school
	- Two with high school	- One with technical career	- Two with high school
	- Four with undergraduate degrees	- Three with undergraduate degrees	- Two with technical career
	- Two with master degree		- One undergraduate degrees

GROUP IN WHICH THE MOTHERS WERE PLACED			
Occupation	- A driver	- A merchant	- Three merchants
	- A professional	- Two employees	- Four employees
	- Two teachers	- A professional	- A worker
	- A printer	- A bricklayer	
	- A carrier	- A mechanic	
	- An employee		
	- A worker		
	- A clerk		
	- An unemployed person		
Time spent doing homework	- Seven from 1 to 5 hours	- Three from 1 to 5 hours	- Five from 1 to 5 hours
	- Three do not do	- Four do not do	- Two do not do

With regard to the fathers, in group I it was found that seven of them spent one to five hours a day doing homework with their children and three did not do this activity. For the second group, only three of the parents spent one to five hours and four did not participate in their children's homework. In the third, it was reported that five parents used one to five hours a day and two did not do this work with their children (Table 4). In this sense, the findings of Pougnet, Servin, Statk and Schwartzman (2011), who indicated that the father figure in childhood promotes the affective and intellectual behaviour of children, are particularly important.

Characteristics of the Family

The family variables investigated in this paper are shown in Table 5. It was found that in group I, seven of the parents were married, two lived in union, and one was divorced. In the second, there were three married, three in union, one single mother, one divorced and one widow. With regard to group III, seven were found to be married, one couple were in union and one was a widow. In terms of family type, it was noted that in group I, eight were nuclear and two were extended; in both the second and third groups, the family structure was similar, five nuclear, two extended and two single-parent. The predominant religion was Catholic in all three groups. In the socioeconomic aspect, in group I, seven families were located in level D, two in level E and one in level C, in relation to the second, six were reported in level D and three in level E. In group III, eight families were found to be located in level D and one in level E. This differs from Borges, Borges, et al. (2006), Manzano and Arranz (2008), who pointed out that it is more likely to find children with high capacities in families with privileged socioeconomic levels, because this

condition helps parents to provide them with educational resources. to their children that provide them with a variety of opportunities.

Another question asked was which members of the family helped with the children's homework. The data revealed that, in the first group, in three cases it was reported that the mother was the one who assisted her children in the activities, the day of both parents was mentioned twice, the father in one, the collaboration between mother and older brothers was indicated in another of the interviewees, and it was also pointed out that three of the children did this activity independently. With respect to group II, five of the children reported that the mother was the supporter, two of the students were helped by the father and siblings, one of the participants was the mother and siblings, and another by the entire family. In the third group, it was recognized that there are a greater number of family members who collaborated in this work, thus, it was observed that the categories of mother, mother and brothers were reported on one occasion respectively, and sister were reported on two occasions, with two students mentioning that both parents, another two indicating that the whole family and two doing the task alone (Table 5).

Table 5. Characteristics of the families by group of children with high capacities

	GROUP I	GROUP II	GROUP III
Civil Status	<ul style="list-style-type: none"> - Seven married - Two union - One divorced 	<ul style="list-style-type: none"> - Three married - Three union - One single mother s - One divorced - One widow 	<ul style="list-style-type: none"> - Seven married - One union - One widow
Type of family	<ul style="list-style-type: none"> - Eight nuclear - Two extensive 	<ul style="list-style-type: none"> - Five nuclear - Two single parents - Two extensive 	<ul style="list-style-type: none"> - Five nuclear - Two single parents - Two extensive
Religion	<ul style="list-style-type: none"> - Nine Catholics - One does not practice 	<ul style="list-style-type: none"> - Eight Catholics - A Christian 	<ul style="list-style-type: none"> - Nine Catholics
Socioeconomic level	<ul style="list-style-type: none"> - One in C - One in D+ - Six in D - Two in E 	<ul style="list-style-type: none"> - Four in D+ - Two in D - Three in E 	<ul style="list-style-type: none"> - Five in D+ - Three in D - One in E
Persons who helps in the homework	<ul style="list-style-type: none"> - Three the mother - One the father - Two both parents - One the mother and brothers - Three alone 	<ul style="list-style-type: none"> - Five the mother - One la mother and los brothers - Two the father and los brothers - One all the family 	<ul style="list-style-type: none"> - One the mother - Two both parents - One the mother and brothers - One the sister - Two all the family - Two alone

Information regarding school and extracurricular activities and parents' beliefs regarding their children

In group I, seven children were found to be engaged in some extracurricular activity, in the second group, five students were attending additional classes and in the third group, eight students were attending other disciplines. In this regard, the parents commented that they provided these alternatives to their children, because they were continuously asked to perform other tasks in their free time, it should be mentioned that one of the mothers explained that at her daughter's request she added additional tasks to avoid boredom.

Also, it was asked that if was common that they received complaints from the teachers in relation of their children conduct, the data revealed that, in the three groups, the parents indicated that their children's behaviour in the classroom was good and explained that when they were asked to attend school, it was to congratulate them on their students' academic performance. Similarly, in all three groups, students were found to have good relationships with their peers (Table 6). In this regard, Gross (1999) pointed out that students with high school capacities sometimes live in a contradictory school relationship, while their academic achievements are valued by adults and some peers, other members of the school community have a different perspective.

It is important to note that all the interviewees indicated that they agreed that their children should continue their studies. Also, was questioned the level of schooling they would like their children to study, the information reflected that in Group I, three would like them to complete a degree and seven would like them to complete a postgraduate course. In the second, it was noted that three of the parents would like them to take a bachelor's degree and six a postgraduate degree. About the third, it was found that two parents are seeking a bachelor's degree for their children and seven are seeking a postgraduate degree for their children. Subsequently, it was asked what characteristics and skills they observed in their children up to what level they thought they would study, and in group I five parents responded that their children would take a bachelor's degree and five others believed they would take a master's

degree. In the second, it was found that one would finish secondary school, two would undergraduate degree and six would have a bachelor's degree. The data in group III, showed that one parent reported that their child will pursue a technical career, one undergraduate degree and seven thinks they will study for a postgraduate degree (Table 6). About this, Carreras (2010) pointed out that when parents find out that their children are highly capable, this increases family stress, since sometimes the expectations of success linked to the children's abilities are not realistic, so it is necessary to provide them with guidance so that they can properly channel their potential.

The parents were asked if they had sufficient financial resources to support their children's studies, the results showed that in group I, five indicated yes and five did not. The parents of second group indicated that five could support their children financially in their professional preparation, three could not and one was not sure (Table 6). As for the participants in group III, six said yes, one said no and two were not sure. This reflected that even though parents would like to support their children in their studies, they recognize that their economic possibilities are sometimes not sufficient, which generates fear and anxiety for the academic future of children, as referred by Carreras (2010).

Table 6. Data reported by parents on school and extracurricular aspects

	GROUP I	GROUP II	GROUP III
Participate in other extracurricular activities	- Four swimming - One music - One football - One gymnastics - Three none	- Two gymnastics - One Talented Child - One music - A war band - Four none	- Three soccer - Two talented kid - One dance - One computer - One gymnastics - One none
Receive complaints about your child's behavior	- One yes - Eight none - One sometimes	- Eight none - One sometimes	- Nine none
Relationships with classmates	- Nine good - One regular	- Seven good - Two regulars	- Six good - Three regulars
School level you would like them to study at	- Three undergraduate degree - Seven master degree	- Three undergraduate degree - Six master degree	- Two undergraduate degree - Seven master degree
School level at which you think you will be able to study	- Five undergraduate degree - Five master degree	- One Secondary School - Two undergraduate degree - Six master degree	- One technical - One undergraduate degree - Seven master degree

	GROUP I	GROUP II	GROUP III
Have the financial resources to support their studies	- Five yes - Five no	- Five yes - Three none - One is not sure	- Six yes - One no - Two are not sure

Relationship between personal and family variables

To determine the relationship between the personal and family variables evaluated in the study a Spearman Rho correlation was used, the results revealed that the time spent by mothers to perform tasks with their children ($r_s = -.635^{**}$) and extracurricular activities ($r_s = -.384^*$) are negatively associated with academic self-concept. The teacher's nomination was positively correlated with the extracurricular activities of the students ($r_s = .383$) and with the mother's schooling ($r_s = .418$). With regard to the mother's school level, it was found that it positively encourages the search for additional activities for the education of her children ($r = .389^*$). As for fathers, positive and significant correlations were observed between their age and that of their mothers ($r_s = .729^{**}$), and the schooling of fathers and mothers is also positively associated ($r_s = .559^{**}$). It was interesting to find that, in the sample studied, the results revealed that the family's socioeconomic level was negatively related to extracurricular activities ($r_s = -.495^{**}$), to the mother's schooling ($r_s = -.526^{**}$) and to the father's educational level ($r_s = -.512^{**}$) see Table 7.

Table 7. Correlation between the personal and family variables

FACTORS				RELATIVES					
				Mothers			Parents		
				Age	Scholarship	Time	Age	Scholarship	Time
PERSONAL	Intelligence		.056	-.126	.010	.193	-.021	-.055	.052
	Sig		.776	.522	.960	.325	.915	.795	.811
	Creativity		-.026	.047	.007	.169	.146	.322	.137
	Sig		.897	.811	.972	.391	.486	.116	.523
	Task Commitment		.126	-.076	.081	-.280	.009	.070	.031
	Sig		.523	.700	.683	.149	.968	.738	.885
	Academic Self-concept		.199	-.083	.163	-.635**	-.030	.219	-.037
	Sig		.311	.676	.406	.000	.886	.293	.867
	Teacher Nomination		-.281	.142	.418*	-.113	.063	.355	-.075
	Sig		.147	.472	.027	.568	.764	.082	.728
RELATIVES	Socioeconomic level		1	-.017	-.526**	.066	.058	-.512**	.198
	Sig			.933	.004	.737	.784	.009	.353
	Extracurriculars Activities			1	.389*	.243	.231	-.259	.000
	Sig			.122	.041	.212	.267	.211	1.000
	Age			1	.105	.000	.729**	-.044	.218
	Sig				.595	.999	.000	.836	.306
	Scholarship				1	-.015	.318	.559**	-.331
	Sig					.939	.122	.004	.114
	Time					1	.067	-.104	-.158
	Sig						.750	.621	.461
FATHER	Age						1	.163	.163
	Sig							.435	.448
	Scholarship							1	-.089
	Sig								.678
	Time								1
	Sig								

Discussion and Conclusions

Based on the variables evaluated, it was found that 4% of the children presented high capacities, these data agree with what was reported in other studies in which a prevalence of 3% to 20% of primary school students in this category was observed (Armenta, 2008; Cervantes et al., 2011; Chávez et al., 2009; Espinoza and Reyes, 2008). In addition, it was found that this population belongs to a heterogeneous group, with different types of skills and talents, hence the need to include several variables to achieve adequate identification and know their capacities

(Armenta, 2008; Gentry and Knight, 2011; Manzano, Arranz and Sánchez de Miguel, 2010; Ordaz and Acle, 2013).

Twelve of the children detected were found to be first-born, six were born second, eight were born third and two were born fourth. These data allow us to reflect on what has been reported by Kristensen and Bjerkedal (2007), Ordaz and Acle (2013) Zacatelco and Acle (2009), who recognize that it is more common to find high capacity characteristics in firstborns, the explanation for this is that parents provide more time, attention and other opportunities to develop their capacities to their older children.

As for the emotional aspect, 19 (68%) of the students with high capacities were reported as sensitive, five as kind, three as shy and one as hyperactive. For Campo (2016), children in this category tend to be socially passive and inhibit their emotions, which places them at social risk and vulnerability, hence the importance of carrying out programs to favor their ability to interact with their peers.

As for the analysis of the influence of the mother's factors, interesting data were found, for example, the minimum level of study was secondary school and the maximum was bachelor's degree. It was noted that 18 (64 %) of them were dedicated to the home and to the care of their children. Although some indicated that they were working, 25 (83%) reported that they spent time doing homework with their children and other family members sometimes supported them in this activity. This makes it possible to recognize that the time devoted by mothers to their children in relation to school work favors the development of cognitive capacities (Manzano and Arranz, 2008). In the case of fathers, the minimum level of education reported was primary school and the maximum level was master's degree, their occupations were heterogeneous and although some reported that these tasks represented long hours, 15 (54%) of them dedicated a space to do the task with their children. In this regard, Pougnet, et al. (2011) mentioned that paternal involvement in the education of children promotes the proper development of the cognitive and emotional sphere.

Also, 24 (86%) of the parents were reported to be married or living together. This shows that children grow up in a family nucleus that covers their basic needs, where their members are involved in school activities. These results revealed that the family support, the degree of accompaniment of the parents and the time they devoted to their children, represented relevant elements in the development of skills and in the educational process of the students. In this regard, Bazán, Sánchez and Castañeda (2007) indicated that when parents provide time and dedication to children's learning, they achieve better academic performance.

Another interesting element was that the families of the students with high capacities in this study belong to the lowest strata according to the AMAI, in spite of this, it was observed that there is important family support from all members in the education of the children and that independently of the socioeconomic level 20 (71%) of the students carried out extracurricular activities. This makes it possible to recognize the existence of students with high capacities who live in areas of social marginalization, with precarious conditions, in environments of poverty, which can affect their school and emotional performance, but if the family provides them with the necessary support, their capacities are favored (Acle and Ordaz, 2010; Burley, Barnard-Brak, Marbley and Deason, 2010; Rodríguez and Valdivieso, 2008). This is extremely important given that the results contradict those reported by Borges, et al. (2006), Manzano and Arranz (2008) in which it was found that it is more likely to find children with high capacities in families with privileged socioeconomic levels, because this condition helps to provide them with additional educational resources that provide them with other opportunities. In this regard, Acle and Ordaz (2010), Rodríguez and Valdivieso (2008), pointed out that belonging to a high economic status is not the only aspect associated with students in this category. Hence, the hypothesis that there are different family variables that act as moderators of high capacities is supported by the results found in this research.

On the other hand, 25 (89%) of the students were reported to have good behavior and 27 (96%) got along well with their classmates. These results are consistent with those observed by Pfeiffer (2008), who recognized that children with high capacities often show sensitivity to the needs of others and enjoy social relationships. Therefore, the development of these characteristics

depends to a large extent on the links and the way in which individuals are educated within their family and school context.

An interesting finding was that the parents of the children detected showed high expectations regarding the level of schooling that their children may reach in the future, but they are aware that their economic resources are low and that they will have to make efforts to support them. This was related to what was reported by Borges et al. (2006), Gómez and Valadez (2010) when they pointed out that parents show feelings of satisfaction and sometimes fear of not having the necessary solvency to help their children in their studies. In this regard, Kitano (2003) recognized the importance of the education system and the government providing financial scholarships to students with high skills who are socially disadvantaged.

As for the associations between personal and family factors, it was found that teachers nominate the children who carry out the most extracurricular activities, which in turn helps students recognize their skills and capacities and therefore are self-critical of their own capacities. An interesting finding was that although parents have low socioeconomic status, they are looking for additional alternatives to enhance their children's skills. The above indicated that even though his economic condition is precarious they get involved in their children's education and provide them with additional alternatives to enhance their capacities. On the other hand, it was found that the mothers' schooling was linked to the number of extracurricular activities carried out by the children and the teacher's nomination, which reflects the different perception of the teacher when they recognize that the parents have a higher level of education. In this sense, the findings are similar to those reported by Manzano and Arranz (2008), Nepper and Beauregard (2011), who pointed out that the maternal cultural level and the fact of dedicating oneself to the home promote the capacities of the students, because they are directly in charge of the care of their children and examine alternatives that they like.

The time that the mothers spend on homework and the amount of after-school activities is negatively related to children's academic self-perception. This may be due to the fact that if there are high levels of stress and tension in the child, these affect the way they assess their own

capacities (Manzano and Arranz, 2008; Sękoski and Siekańska, 2008). Likewise, Garn et al. (2010) indicated that parents' attitudes and comments influence students' motivation and self-concept, because they are variables that are regulated through social interaction.

It was also found that the schooling of mothers and fathers does not determine socio-economic status. This is of particular interest because it shows that there is an inequality between educational level and income, as described by Valdivia and Pedrero (2011), when they indicated that even though the average salary has increased, most workers experience a significant detriment in their perceptions. Despite this condition, parents show to be committed to their children's education and provide extracurricular activities according to their possibilities.

We conclude that the empirical evidence from this study highlights the transcendent role that parents play in the development of the talents of their children with high capacities, hence the importance of providing them with the necessary support to provide them with the appropriate educational strategies to enhance their capacities, in addition to the collaborative work between teachers and parents is essential to achieve optimal knowledge of students.

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