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Artículos Científicos

Análisis de la literatura: tópicos manifiestos y tendencias de las investigaciones realizadas en jóvenes con aptitudes sobresalientes

Literature analysis: the manifest topics and tendency of investigations made in young gifted people

Análise da literatura: temas manifestos e tendências da pesquisa realizada em jovens com habilidades destacadas

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#### Resumen

En este artículo se ofrece una revisión del estado de la cuestión, así como un análisis sobre el tema de los jóvenes con aptitudes sobresalientes (AS). El objetivo central fue dar a conocer cuáles son los tópicos que se han estudiado sobre dicho tema dentro del nivel medio superior y las dificultades que esos estudiantes presentan, así como las tendencias en el tipo de trabajo de investigación que se han efectuado en relación con estos casos en diferentes países durante el periodo 2010-2019. De una búsqueda en diferentes bases de datos, se obtuvieron 33 artículos que mencionan específicamente las AS en nivel medio superior. Los resultados





demuestran que existen escasos trabajos dedicados especialmente a jóvenes con AS en el nivel medio superior, aunque también se hallaron datos generales sobre algunos tópicos, como dificultades que presenta esa población, rasgos característicos de estos y factores familiares inmersos. En conclusión, se puede afirmar que se necesitan más investigaciones, sobre todo en México, para mejorar el apoyo, la detección y la atención de jóvenes con AS, pues las dificultades de índole psicosocial o la relación con los pares son aspectos que deben ser abordados, así como las posibilidades de atender a estos alumnos o el seguimiento que se les debe dar a sus familias, ya que esta institución funge como facilitadora de procesos pedagógicos y de apoyo.

**Palabras clave:** aptitud sobresaliente, características, dificultades, factores familiares, medio superior.

### **Abstract**

This article shows the state of the art and analysis in the young gifted students theme. The objective is to show topics young gifted people in high school level and the type of research work that has been carried out in relation in this area, in different countries, during the period 2010-2019. In the search in different bases, it was obtained 33 articles bases that mention gifted in high school. This revision generates results of low work in the case of young gifted people and general data on some topics that these reviewed provide, like their difficulties in that cases, their characteristics and familiar immersed factors. It concludes that is necessary more research, especially in Mexico, to improve the support and attention to this cases, because the psychological difficulties or the relation with pairs is important to work and approach possible interventions for the gifted's families, as they are a pedagogical facilitator and process support.

**Keywords:** Gifted, characteristics, difficulties, familiar factors, high school.





### Resumo

Este artigo oferece uma revisão do estado da questão, bem como uma análise sobre o assunto de jovens com habilidades destacadas (EA). O objetivo principal era dar a conhecer os temas estudados sobre o assunto no nível médio superior e as dificuldades que esses alunos apresentam, bem como as tendências no tipo de trabalho de pesquisa realizado em relação a eles. casos em diferentes países durante o período 2010-2019. A partir de uma pesquisa em diferentes bases de dados, foram obtidos 33 artigos que mencionam especificamente o EA no nível médio superior. Os resultados mostram que existem poucos empregos dedicados especialmente aos jovens com EA no nível médio superior, embora também tenham sido encontrados dados gerais sobre alguns tópicos, como dificuldades apresentadas por essa população, características características desses e fatores familiares imersos. Concluindo, pode-se afirmar que são necessárias mais pesquisas, principalmente no México, para melhorar o apoio, a detecção e o atendimento de jovens com SA, uma vez que dificuldades psicossociais ou o relacionamento com colegas são aspectos que devem ser abordados., bem como as possibilidades de atendimento a esses alunos ou o acompanhamento que deve ser dado às famílias, uma vez que essa instituição atua como facilitadora de processos pedagógicos e de apoio.

**Palavras-chave:** aptidão destacada, características, dificuldades, fatores familiares, meio superior.

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## Introduction

In recent decades, although it is true that the issue of adequate education for people with outstanding skills (AS) has taken great relevance, as well as the benefit that this human resource brings to the overall development of each country (Kalashi, Sokrzadeh and Kamkari, 2018; Seaton, Marsh, Parker, Craven and Yeung, 2015; Valdés, Vera and Carlos, 2013), it is also necessary to propose activities that allow these individuals to fully develop their teaching-learning process. That is why, in various parts of the world, a global institutional intervention has begun to be promoted, oriented by the different educational organizations, entities in charge of strengthening and attending to the learning of people with AS (Martín and Vargas, 2014).

A sample are the academically selective schools of the United States, which focus on these cases to present to students a more specific range of knowledge related to science in general, technologies, engineering and mathematics [STEM] (Fraleigh- Lohrfink, Schneider, Whittington and Feinberg, 2013; Pride, 2014; Young, Young and Ford, 2017). These initiatives, however, are scarce in institutions of the upper middle level, where only general and non-specific activities are usually carried out, as in the undergraduate level (Fraleigh-Lohrfink et al., 2013).

Another of the important points of attention of people with these skills is intervention, which is sometimes carried out by grouping students with peers who also have AS, because that way more challenging classes are encouraged. However, when these types of activities are not taken advantage of, and students with AS are grouped with regular students, it has been shown that in the former levels increase in variables such as boredom and academic self-concept (Prekel, Götz and Frenzel, 2012). In other words, students with AS show higher ranks of boredom when they are not overreported.

Regarding self-concept, the previous authors showed that when a student is changed from a regular group to an exclusive group, there is a significant decrease in self-concept, although in the case of students with AS their self-concept increases compared to that of students without AS, they are accepted within an exclusive group, which raises their motivation. From the above it can be inferred that the level of challenge and motivation are indispensable factors so that students with AS can combat boredom (Chae and Gentry, 2011).

The problem, however, lies in knowing how to find the optimal intensity of the





stimulus-challenge, because in this way it avoids being located at one of the extremes of said dyad, which is necessary for all people (whether or not they are outstanding) to may feel challenged and motivated at the same time, keys to enhance intellectual advancement and academic performance (Valdés, Carlos, Vera and Montoya, 2012).

On this issue of self-concept, it is also worth highlighting the work of Ordaz and Acle (2012), who explain that there is no difference in this criterion when comparing men and women with high capacity. In fact, according to Hormazábal-Peralta, Espinoza, Cáceres and Lizana (2018), students with AS tend to have low levels of overweight and obesity, as they tend to perform more pattern exercise in school curricula.

Another element that must be taken into account to attend to this population has to do with the offer of extracurricular workshops that foster a taste for research (López, 2015), which can be specified from the teaching of innovative topics that enhance his skills. These efforts based on extracurricular plans, groupings, selective schools and discovery of characteristics can help the student to choose a future professional career, which logically must be planned from an appropriate tutoring or counseling, essential link to achieve the objectives set.

For this, the tutor or counselor must know the racial, economic, social particularities, as well as the problems of frustration or anxiety that people with AS may have to decide to opt for one or another career (Cross and Dawn, 2010; Ordaz and Acle, 2012; Ozcan, 2017).

For these reasons, the objective of the present work is to carry out a review of the state of the question about the topics and the work (type, places and year) developed in different countries to attend to the young people with AS who attend the upper middle level.

## Method

According to Huergo-Tobar (2015), the states of the issue or documentary analysis are relevant because they provide "a basis for developing reading and understanding of texts, focused on the production of writings of scientific origin that contribute to the construction of knowledge through the use of critical thinking"(p. 1). In addition to this, Gómez, Galeano and Jaramillo (2015) argue that the state of the matter tries to transcend the data and references of the known so far to "build a coherent order that explains and totalizes the





meanings of a particular phenomenon" (p. 424), which is achieved by organizing and structuring data from isolated investigations.

This research was carried out through the review and analysis of the available literature on the subject in various databases, such as Scientific Electronic Library Online (Scielo), Network of Scientific Journals of Latin America and the Caribbean, Spain and Portugal (Redalyc), Dialnet and EBSCOhost.

The keywords of the initial search were: high skills, giftedness, outstanding skills, giftedness, outstanding high school skills, outstanding skills in the upper middle level, gifted high school students and high school gifted students. In principle, approximately 9000 studies were found on young people with outstanding skills; however, a debugging process was carried out that allowed the detection of 33 articles specifically linked to outstanding skills at the upper middle level. Specifically, the name was referred to the differentiation within words and conceptions of high performance or talent and AS or giftedness. This means that those writings that took their role within the area of talent were discriminated, this being the first pattern of inclusion of the writings. Following this, only articles from scientific journals were chosen. As a third selection criterion, those investigations published between 2010 and 2019 were taken. Finally, work that required a monetary subscription to websites or specialized magazines or articles that were incomplete (eg, that only had only available your abstract or summary).

Likewise, it is worth mentioning that in Mexico the term outstanding skills is used to refer to giftedness / giftedness / high capacities, while in other countries such as Spain and Chile, the expression high capacities is used to denote both AS and talent. This forced a detailed reading to discriminate those works that used the word high capacities when they referred to talent. Also, it should be noted that in the case of English-language literature, the word gifted is the most usual to refer to AS.

As for the analysis, this was done by filling out an Excel table with the general and summarized information of the documents. In a first linear reading, the information and the subject of the articles could be categorized to find the topics in which they are included. Subsequently, and given the similarity regarding the selected topics, a second cross-sectional reading was made that allowed generating a parallel comparison to detect the similarities,



gaps, complementarities and to corroborate, expand and find contradictions between the references. Made this observation, the topics presented in the following section emerged.

### **Results**

In the first instance, we will begin with the introduction of the bibliographic analysis of the reviewed articles to indicate which countries [contextualize] are taking into account the importance of carrying out studies to know the strengths, deficiencies, weaknesses and characteristics of the population with AS at the level upper middle. In this way, the topics covered in the writings can be introduced.

In the other of the points established in the objective (trends in the type of research work, places and years of studies conducted on young people with AS of upper middle level), it was found that the publications covered the American continent (Mexico, United States, Canada and Chile), European (Spain, France, Portugal, Austria, Romania and Turkey) and Asian (Iran, South Korea, Israel, Bahrain and China). It should be clarified that one of the writings was published by authors from two countries (South Korea and the United States), which is why 34 documents appear in table 1 (See table 1).

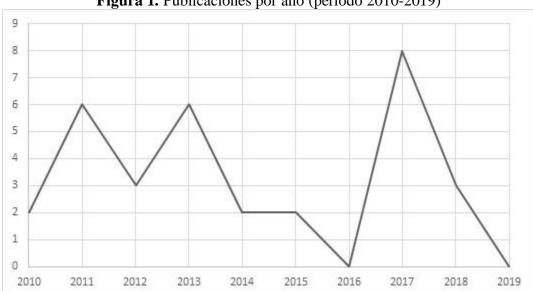
Tabla 1. Número de publicaciones encontradas por país

País de	N.° de
origen	publicaciones
Estados Unidos	8
México	4
España	4
Chile	3
Turquía	2
Irán	2
Israel	2
Canadá	2
Francia	1
Portugal	1
Corea del Sur	1
Austria	1
Rumania	1
China	1
Bahréin	1

Fuente: Elaboración propia



On the other hand, a variation in the number of publications according to each year can be seen in Figure 1. In summary, the peaks in the years 2011, 2013 and 2017 are visible, although also the gaps in 2016 and 2019.



**Figura 1.** Publicaciones por año (periodo 2010-2019)

Fuente: Elaboración propia

Regarding the specific level of the work carried out, in 22 high school populations are approached, while in 11 articles the authors focus on students of both basic and upper level. Specifically, 33% of the publications focus on the basic level (preschool, primary and secondary), while 67% is dedicated exclusively to the upper middle level.

Regarding the nature of the investigations, 5 are qualitative, with designs such as the case study, the retrospective documentary strategy, the narrative methodology and the life stories (table 2), while 25 are quantitative, of a comparative type - 2 descriptive- correlational and 2 longitudinal (table 3) -. It should also be noted that some research uses more than one type of design, hence the total is greater than the general number of studies found; In addition, in 3 works the nature of the inquiry is not specified or they were literature reviews.



**Tabla 2.** División y número de publicaciones cualitativas conforme a su diseño o tipo

Método de	Estudio	Estrategia	Sin	Historia
la	de caso	documental	especificar	de vida
publicación		de carácter		
(cualitativo)		retrospectivo		
Número de	1	1	1	1
publicaciones				

Fuente: Elaboración propia

**Tabla 3.** División y número de publicaciones cuantitativas conforme a su diseño o tipo

Método de la publicación (cuantitativo)	Estudio comparativo	Descriptivo- correlacional	Longitudinal
Número de	20	9	3
publicaciones			

Fuente: Elaboración propia

However, if the articles analyzed are divided according to the language in which they were written, 67% are presented in English, 12% in Portuguese and 21% in Spanish. This shows that there is a greater tendency to publish in the Anglo-Saxon language, even in countries where this language is not the official one (See table 4).

**Tabla 4.** Número de publicaciones conforme al idioma que fueron escritos

Idioma de la	Inglés	Español	Portugués
publicación			
Número de	22	10	1
publicaciones			

Fuente: Elaboración propia

Likewise, and with regard to the topics that are addressed in the case of young people with AS of the upper middle level, it can be said that the majority focuses on the difficulty that these students present when their educational needs are met. Likewise, an effort is made to detect the traits that characterize people with AS, as well as their main difficulties related to the family environment or situation. In this regard, the topics that were found in the reviewed investigations are presented below:



## **Topic 1: The difficulties that young people with AS present**

Despite the efforts made, there is still difficulty on the part of schools to create plans that allow the enrichment of students with AS (Villatte, Courtinat-Camps and Léonardis, 2014; Valdés, Sánchez and Yañez, 2013; Valdés et al., 2013). In fact, as regards selective schools, not all students have the same possibilities to enter these instances (Fraleigh-Lohrfink et al., 2013; Young et al., 2017). In this sense, in some centers a discriminatory tendency is perceived according to race (white or Asian people are included, and African American, Latin and Indian races are excluded) (Fraleigh-Lohrfink et al., 2013; Pride, 2014; Young et al., 2017).

On the other hand, Jiménez and García (2013) explain that within Spain the institutions classified by excellence (STEM) mainly capture the best students. However, it is worth noting that the differences that STEM residences students can present tend to generate psychosocial needs and affectations, such as difficulty in school, problems in career choice and low self-esteem, as well as difficulties related to puberty, relationships, the creation of new friendships and the formation of identity. This is compounded because these students do not find support in their friends or family. In fact, according to various authors, this is generated because the gifted possess a lower level of mental ability to tolerate problems (Cross and Dawn, 2010; Kalashi et al., 2017).

The previous results, however, are different from those reported by Özbey, Sarıçamy and Karduz (2018), who have found that students with AS are less likely to feel unbalanced and strange in schools outside the place of origin and have less difficulty Make friends than your regular companions who live in their own countries or places of origin.

In addition to this, Lupu (2012), Al-Hamdan, Al-Jasim and Abdulla (2017) and Özbey et al. (2018) found in their studies that adolescents with AS have emotional intelligence, empathy and a sense of community greater than people without AS. Similarly, Chen, Cheung, Fan and Wu (2017) mention that students with AS have a high resilience; Even when these students set a goal, they struggled to overcome the difficulties presented, which shows that the achievement of career goals and academic resilience are related. Despite this, it should be noted that these people need guidance or counseling because they may miss their home or manifest suicidal tendencies (Cross and Dawn, 2010).





Another aspect to take into account for these students has to do with bullying, although According to Ryo, Wang, Swearer and Park (2017) report that there are no differences in terms of being victims of bullying between students with AS and their unqualified peers. These authors, in fact, mention that students with AS who are in the intermediate grades are more likely to be supporters of bullying, which usually decreases when they are in higher grades. According to these authors, this possibility of participating in aggressions increases when they have had negative social experiences of intimidation, which is later transformed into feelings of anger.

As for some myths that fall on these students, the idea that these people do not need any kind of pedagogical help must be combated, since it is often believed that they themselves can get ahead. Therefore, it should not be thought that AS are an absolute guarantee of success and high academic performance (Martín and Vargas, 2014). In this regard, Valdés et al. (2012) state that "outstanding students need adaptations, both of the curriculum and the family environment, in addition to teachers and parents who know and can respond effectively to their characteristics and educational needs" (p. 41).

In relation to the difficulties for the attention of the AS, but from other agents involved in the pedagogical processes of these students, Conejeros-Solar, Gómez-Arízaga and Donoso-Osorio (2013) present the results on the perception of the students about the attitude of their teachers. According to their findings, students see in a positive and important way a close teacher who cares about what happens with them in the classroom. They even value that teachers present novel activities where the learned theory can be applied.

These insights co-exist with the findings of Chae and Gentry (2011), who explain that students prefer chairs where they can perceive the connection between the real world and what is seen in class. In addition, the students see very well the teachers who manage to form a series of deep reflections with the topics seen and generate mental challenges (Conejeros-Solar et al., 2013).

For their part, Eilam and Vidergor (2011) conducted a study with Arab and Jewish students with over-endowment-AS to determine what were the differences between their perceptions of their teachers in special enrichment programs. The authors found that teachers should have a full awareness of the cultural aspects of students, since this criterion significantly influences the assessments of their students. This is because the Arab students,



being more self-conscious, externalize a posture of less sensitivity with their teachers, unlike the Jews, who tend to be more sentimental with the teachers. This cultural factor is also demonstrated in the preference of both ethnic groups as regards the pedagogical paradigm that guides the teacher's activities, because while the Arabs feel more comfortable with a behavioral teacher - due to the marked social influences of never disrespecting or questioning their teachers — Jews prefer a teacher who promotes problem solving, creativity, group work and individual projects.

On the other hand, it should be noted that a difficulty found in the present study has to do, in general, with the group of students with whom the research is carried out, that is, predominantly people from basic education schools, and not populations of the medium superior level. Regarding this aspect, it should be taken into account that the methods used for the diagnosis of AS in basic education are insufficient to be used at the baccalaureate level, hence, instruments focused on this population must be used, since there are different levels and sub-types of giftedness, even within specific talents (Leikin, Leikin, Patz-Baruch, Waisman and Lev, 2017; Ordaz and Acle, 2012; Valdés et al., 2013).

In Mexico, this point is vital because the detection, enrichment plans and intervention have only been developed for the primary education population, which generates a lack of attention to the other students (Ordaz and Acle, 2012; Valdés et al., 2012; Valdés et al., 2013). From this statement, it can be deduced that the work of curricular adequacy and the teaching work for greater learning and use of students with AS is relevant.

# Topic 2: Characteristics found in young people with AS from the studies carried out

The characteristics that have recently been addressed in the studies are perfectionism and leadership, in which it is mentioned that they generate difficulties in relationship with peers in the case of certain people with AS. This is derived from the characteristic of perfectionism, which triggers disagreements on how to see things or perform them, as it can be perceived that people with AS show a tendency for perfectionism by opting for a leadership position that can be rooted and influenced from familiar surroundings. This means that when parents are perfectionists, there are greater possibilities for children to develop these qualities, which are usually particularly harmful in the adolescence stage for people





with AS, a period of life where it is more common to generate burnout syndrome (Fernandes, Vasconcelos-Rapos, Bertelli and Almeida, 2011; González, 2013; González, Gómez-Arízaga and Conejeros-Solar, 2017).

Likewise, it is worth commenting on a study by French, Walker and Shore ( $\neg 2011$ ), who demonstrated that students with AS prefer to work alone when they do not feel that their work is being appreciated or valued. In fact, as time goes by, these students prefer to work on their own learning and manage to discern between what others do not call attention to and what they do.

On the subject of individual preferences, the research of Betts and McMasters (2011) stands out, who tried to show three students with over-giftedness and high performance in mathematics a different idea than the one taught in the curriculum, through an enrichment program of a philosophical order that showed the nature of the most disorderly mathematics. The results show that students feel a total rejection of this position, which the authors claim is a curricular problem, given that there are no critical components of the process, although in reality it was the decision of the epistemic position chosen by students (Betts *et al.*, 2011).

Other elements that must be addressed are the perspectives and preferences of these students to try to satisfy them in the activities proposed in class (Chae and Gentry, 2011). This should be considered because students with AS tend to learn faster or have a more effective ability to retain large amounts of knowledge, as well as greater development of expertise in the area of study, efficient working memory, flexible thinking, linguistic competence and verbal ability, abstract thinking and more metacognitive ability to solve problems, form unusual relationships between disciplines or objects, successfully carry out self-research, transfer knowledge and apply it in new situations (Eilam and Vidergor, 2011; Snyder, Nietfeld and Linnenbrink-García, 2011). All these elements, therefore, should be used when making curricular adjustments and adaptations of academic work.



### Topic 3: Family factors immersed in cases with AS

Family factors are aspects that, according to Valdés et al. (2012), they should also be considered in the personal history of people with AS, since they influence in a different way, for example, in terms of generating an environment where students are facilitated their intellectual and social growth, and where they help them to solve proposals in decision making. In the words of the aforementioned authors, "the influence of the family can occur both through input or structural factors (socioeconomic status, level of education of the parents and resources for the study [...]), or through factors procedural "(p. 41). In other words, the family is an essential element to facilitate the pedagogical process of students with AS, hence Valdés et al. (2012) have tried in their work to standardize an instrument on the family climate of students with AS to guide families on how they can help their children.

Finally, it should be anticipated that people with AS also tend to be affected by their non-outstanding peers as gifted individuals, which can cause them to hide their abilities to be accepted by others (Pride, 2014). This attitude of cover-up occurs mainly at puberty, as adolescents tend to be more attentive to any distinctive feature of their peers (Fernandes *et al.*, 2011).

### **Discussion**

Regarding the manifest topics for these cases, it was possible to find some of the difficulties that young people with AS present, such as psychosocial and academic adjustment, importance of the family environment (interaction, perfectionism, help in the development process), characteristics related to its process of attention and intervention and emotional elements.

Regarding the type of study carried out, we can appreciate the tendency of quantitative writings to compare the variables between students presenting AS and those who do not have this quality, as well as among students of different nationalities. Likewise, variables such as self-concept and its development in specialized schools, motivation to combat boredom, bullying, body composition, emotional intelligence, resilience, perceptions of the student about the behavior of their students are usually taken into account teachers according to cultural variables and the preference or not to work alone, as well as the choice of a future career (French et al., 2011; Lupu, 2012; Ryo et al., 2017).





Likewise, the intellectual and psychosocial variables that discriminate against students with AS from those who do not have these skills are rescued, as well as the different types and levels of AS in specific areas (such as mathematics) and psychosocial factors that can influence the academic trajectory of the student (Cross and Dawn, 2010; Valdés et al., 2012; Valdés et al., 2013). In addition, it was found that there is a strong connection between parental perfectionism and that developed by children with AS (Kakavand, Kalantari, Noohi and Taran, 2017); This allows us to infer that psychosocial variables may have an influence on the student's academic development.

Qualitative research, on the other hand, focuses on the life history of students with AS (Pride, 2014) or on wanting to instill in students an epistemological vision different from mathematics through a narrative approach (Betts et al., 2011). In another investigation of this nature, the case study found similar results taking into account perfectionism from the parents (González et al., 2017). In addition, it was possible to shore up the needs of students with AS according to the suitable profile of their teachers (Conejeros-Solar *et al.*, 2011).

In summary, it can be said that quantitative studies are mostly addressed in the review of topics for AS cases, which also promote various descriptive, longitudinal and comparative analyzes to highlight the characteristics and difficulties of this population.

Regarding the countries with the largest publications on the subject in question, it can be affirmed that the highest percentages come from the United States and Europe, while in Mexico four studies were found, an acceptable number compared to those of other nations Latin American

Finally, it should be noted that 2011 and 2013 were the years in which the largest number of publications were found, although it is worth noting that not all articles focus specifically on AS in the upper middle level, but also on other educational levels.





## **Conclusions**

This research strengthens the knowledge on the subject of AS, because, according to the analysis made, it can be affirmed not only that there is a clear disarticulation of the writings found, but also that the characteristics of students with AS are very different. Likewise, it can be seen in several studies that most of the works state variables such as perfectionism, self-concept and some educational needs that students with AS may have, as well as aspects of intellectual type and various skills. However, it should be noted that the majority of works on AS have focused on childhood stages, and not so much on young people of upper middle or higher level, which is why more jobs focused on this population are required to expand the population. debate about possible ways to meet their needs. In that sense, it is wrong to think that these students lack the problems that other people may have. Therefore, it should be emphasized that people with AS do not necessarily adapt easily to the school environment, since in terms of the ability to socialize they usually have the same limitations as their unqualified peers.

On the other hand, of the 33 articles found on the subject of study, it can be indicated that in Mexico there are 12% of the total publications (that is, four articles), which serves to locate the country, together with Spain, in second place (after the United States, a nation that has 24% of the jobs found). Even so, it is necessary to publish more works in Spanish, since the majority is published in English.

Another outstanding point is that most of the works (94%) present a basic investigation that only tries to find relationships between some factors to foster the understanding of the educational reality, as well as the student's experiences and their main characteristics. In other words, only 6% of inquiries offer some kind of intervention.

As for the epistemological dimensions of giftedness, it is fair to mention that they are beginning to open paths to other types of AS, which could be expanding the conceptions around this phenomenon.

For future work it is recommended to deepen populations of adolescents and young people with AS, especially in relation to the diversity of their characteristics, their difficulties and their learning styles, because in this way new work niches can be found. In this sense, it has been detected that there is a wider number of inquiries in the field of special educational needs (SEN), especially in cases of disability, but the terrain of AS has been neglected,



especially in relation to their Detection process and monitoring of people with such capabilities. It has not even worked on the adequacy of the curriculum so that the teaching-learning process improves and meets the requirements of these students.

Finally, the possibility of developing inquiries that include not only cases of intellectual AS, but also psychomotor, creative, artistic and social-emotional faculties could be considered. Likewise, it is necessary to reflect on the human resources that will work with this student body, as well as on the psychosociocultural adaptations present in the upper middle level, specifically, of Mexico.

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