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Assessment of the Self-Determination of Spanish Students with Intellectual Disabilities and other Educational Needs

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Abstract

The purpose of this study was to assess the self-determination of Spanish high school students with Intellectual Disability and other Special Educational Needs (SEN). A total of 371 students between 11 and 17 years of age participated in the study. Of these, 46.4% (*n*=171) presented SEN, specifically learning disabilities (*n*=97; 26.2%), borderline and intellectual disability with higher IQ scores (*n*=43; 11.6%) and mild intellectual disability (*n*=32; 8.6%). The remaining students without SEN made up the control group. The assessment was carried out using a translated and validated Spanish version of The Arc's Self-Determination Scale (Wehmeyer, 1995). This measure had appropriate psychometric properties. Students with SEN obtained significantly lower scores than their peers without SEN. However, no differences were found in relation to the type of SEN or, more specifically, in relation to the presence of intellectual disability. The educational implications of the results are discussed.

Keywords

Self-determination; assessment; students; intellectual disabilities; special educational needs

Introduction

Self-determination occupies an important place among the goals of services and supports offered to people with disabilities, especially educational supports. The construct has become increasingly relevant owing to several factors. First, society has changed in the way it now regards people with disabilities (Schalock, 2009; Schalock et al., 2010), moving from a deficits perspective to strengths-based models of disability; Second, there is a new model for the provision of services, based on principles of normalization and on self-advocacy and independent living movements (Bradley & Bersani, 1990; Knoll, 1990; Luckason et al.,

1992; Schalock, Gardner & Bradley, 2007), which emphasizes the primacy of self-determination. Another important influence has been new approaches emerging from the field of positive psychology that place more emphasis on a person's strengths rather than his or her limitations or weaknesses (Seligman & Csikszentmihalyi, 2000). Undoubtedly, however, the most important determining factor in understanding self-determination as one of the key goals of services and supports has been the demands made by the people with disabilities to have more control over their lives and over decisions that affect their lives (Getzel & Thoma, 2006; Stoner, Angell, House, & Goins, 2006).

Research has shown that people with disabilities, especially people with intellectual disability, are less self-determined than their non-disabled peers, in large measure because they have fewer opportunities to make choices and express preferences across their daily lives (Chambers, Wehmeyer, Saito, Lida, Lee & Singh, 2007). Studies that have analyzed the influence of individual and environmental variables on a person's level of self-determination have found that intellectual capacity is not the determining factor (Wehmeyer & Garner, 2003) in self-determination status, however IQ is predictive of the person's educational, work and home environments (Chambers et al., 2007), which in turn limit or enhance opportunities to make choices and become more self-determined. How limiting these environments are—and the opportunities available in them to make choices, make decisions, and express preferences—affect the development of self-determination (Stancliffe, Abery & Smith, 2000; Wehmeyer, Kelchner & Richards, 1995).

People with higher levels of self-determination have been shown to obtain better outcomes during both their school and adult lives (Field, Sarver & Shaw, 2003; Fowler, Konrad, Walker, Test & Wood, 2007; Martin, Mithaug, Cox, Peterson, Van Dycke & Cash, 2003; Wehmeyer & Palmer, 2003; Wehmeyer & Schwartz, 1997), and to enjoy a higher quality of life and enhanced social inclusion (Lachapelle et al., 2005; Nota, Ferrari, Soresi & Wehmeyer, 2007).

The acquisition of personal traits that lead to self-determination starts in infancy and continues into adult life. It requires direct and structured instruction, starting from an initial assessment of the person and the environments in which he or she functions (Inclusive Large Scale Standards and Assessment Group, 2003; Thoma & Sax, 2003; Thoma, Williams & Davis, 2005). It is important for this instruction to begin early if students with disabilities are to leave school as self-determined individuals (Erwin & Brown, 2003; Wehmeyer & Palmer, 2000).

Students with intellectual disability and learning disabilities often possess traits that make it more difficult for them to acquire the attitudes and skills contributing to greater self-determination (Field, Martin, Miller, Ward, & Wehmeyer, 1998; Peralta & Zulueta, 2003). Too often, people with cognitive disabilities are dependent upon and influenced by others, and, as a result, have an external locus of control, low self-esteem, poor abilities to plan, set goals and look for information, and an unrealistic perception of their own capacities and limitations (Field & Hoffman, 2002a). In spite of this, educational practice is producing more and more examples of how the different components of self-determined behavior can be acquired by people with intellectual and cognitive disabilities (Algozzine, Browder,

Karvonen, Test & Wood, 2001; Karvonen, Test, Wood, Browder & Algozzine, 2004). We also have evidence for the efficacy of different strategies and educational programs (Council for Exceptional children, 2004; Field & Hoffman, 2002a&b; Halpern, Herr, Doren & Wolf, 2000; Martin & Marshall, 1995; Oregon Department of Education, 2001; Wehmeyer, 2007; Wehmeyer & Field, 2007).

Many educators understand the importance of self-determination as an essential educational outcome for *all* students. They realize that many students will struggle to become self-determined unless they receive direct instruction in these skills and have the opportunity to put them into practice (Agran, Snow & Swaner, 1999; Malone, 2008; Peralta, González-Torres & Sobrino, 2005). And they want to know more about what and how to teach students to become more self-determined (Mason, Field & Sawilowsky, 2004; Wehmeyer, Agran & Hughes, 2000).

As a consequence, the promotion of self-determined behavior, especially in students with disabilities, though also with all other students with different types of special educational needs (from hereon SEN), has met with great interest internationally in the area of education (Millar, 2008). Moreover, promoting and enhancing self-determination has become best practice in educational services (Wehmeyer, Garner, Yeager, Lawrence & Kay, 2006). The results described above have, however, almost exclusively come from North-American studies; the situation in other countries, such as Spain, remains uncertain. For one, there are few instruments to assess the self-determination of people with disabilities (Peralta, Zulueta & González-Torres, 2002) that have been translated and normed outside of a North American context, and there are even fewer programs to promote self-determination as an outcome of the educational process. In the light of this, the aim of this study was to assess the self-determined behavior of high school students with intellectual and learning disabilities in Spain. Consistent with Field and colleagues (1998) and Peralta and colleagues (2002, 2003), the goals that have guided our assessment proposals were: 1) that the student becomes aware of his skills, needs, limitations, preferences and interests; 2) that the information obtained helps the student to have a more accurate picture of himself and his environment; and 3) helps to identify environmental factors that facilitate or impede their self-determination and, hence, can be used to design strategies to increase opportunities and remove obstacles to self-determined behavior.

Method

Participants

Participants in this study were 371 high school students aged from 11 to 17 years. They conformed a convenience sample. The most relevant data about their distribution according to gender, age, presence or not of SEN, and type of SEN are shown in Table 1.

Measure

After a thorough analysis of the main self-assessment scales, we selected *The Arc's Self-Determination Scale: SDS* (Wehmeyer, 1995) in its original version in English for use in our studies. This tool is a self-report measure for adolescents with intellectual and learning

disabilities. The SDS authors' purpose was to construct an instrument that students with intellectual and other cognitive disabilities, with appropriate supports and accommodations, could use to evaluate their own beliefs about themselves and their self-determination and could work collaboratively with educators to identify their strengths and weaknesses. The SDS is a 72-item scale divided into 4 sections: Autonomy, Self-regulation, Psychological empowerment and Self-realization. The *Autonomy* section assesses the student's independence and the degree to which he or she acts on the basis of personal beliefs, values, interests and abilities. The *Self-Regulation* section has two parts: the first concerns solving interpersonal cognitive problems; the second is about setting goals related with three major transition areas to adult life. The third section, *Psychological Empowerment*, assesses the student's locus of control, self-efficacy and outcome expectancy. Finally, the *Self-Realization* section assesses how well the student knows himself and his own emotions, capacities and limitations.

One of the reasons for choosing this scale was that it was not designed to be diagnostic or prescriptive, but rather for use as a resource that can help students with SEN, educators, and researchers to make decisions about areas of instructional need (Peralta & Zulueta, 2003). It can, therefore, provide valuable information that can be used to design programs and interventions to promote self-determination of students with special needs.

Before using the scale, it was first translated in Spanish and adapted, in accordance with guidelines for the adaptation of self-report measures in relation to linguistic, semantic, cultural and conceptual equivalence proposed by the International Test Commission (Beaton, Bombardier, Guillemin & Ferroz, 2000; Hambleton, 1994). First, two translations were carried out from English to Spanish by two experts in the language. Both translations were then combined to produce the first Spanish version of the scale, which was then translated back into its original language to verify that the contents of the translated items coincided with the original items. Finally, the entire research team, experts in disability and self-determination, agreed on a final version of the scale. When the self-report measure was finally available we then used it in three pilot studies with groups of high school students with and without SEN.

The translated scale has acceptable psychometric properties. Reliability was measured by Cronbach's Alpha internal consistency coefficient, which was 0.82 in the group of students with SEN and 0.77 in the group of students without SEN.

Construct validity was determined by an exploratory factor analysis that offered a 4 factor solution that explained 65.1% of the variance. Then we did a second order factor analysis that produced a 2 factor solution that explained 65.5% of the variance. The first one includes the three first factors from the previous analysis in a construct we refer to as Self-determination, which concerns skills related to autonomous behavior, locus of control, self-efficacy and outcome expectancy and self-awareness. The second one coincides with factor 4 of the previous analysis and refers to aspects related to self-regulation.

Procedure

After receiving a favorable report from the bioethical committee of our Institution, we began to contact the different high schools. The research team sent a letter explaining the purpose of the study. After a few days, we phoned the principals of the schools and arranged meetings with them and with counselors and educators from the 21 (out of 26) schools that accepted to participate in the study, to plan the work sessions. Two trained assessment administrators applied the scale to small groups of a maximum of 15 students. Students were ensured that their information would be encrypted and the results treated with confidentiality and were asked to give their informed consent.

Results

Total and subscales scores were transformed to a 0–100 scale to make comparisons between them easier. On the whole, students obtained average scores in Autonomy (*M*: 56.35; *SE*: 10.37) and higher than 70 points in Psychological empowerment (*M*: 88.12; *SE*: 13.87) and Self-Realization (*M*: 74.90; *SE*: 13.93). These results coincide with those obtained in most studies on self-determination during adolescence and with the results of the author of the scale (Shogren, et al., 2008; Wehmeyer, 1995; Wehmeyer, Peralta, Zulueta, Gonzalez-Torres & Sobrino, 2006).

We then analyzed the differences observed in the scores obtained from the students in relation to variables such as presence of SEN, type of SEN, gender, and age. In relation to the presence of SEN, we applied a *t* test for independent samples and found significant differences between students with SEN and students without SEN, both in total score ($t = -3.626$; $p = 0.000$) and in the different subscales: Autonomy ($t = -1.388$; $p = 0.006$), Psychological empowerment ($t = -3.934$; $p = 0.000$) and Self-realization ($t = -1.666$; $p = 0.000$). As can be observed from Table 2, in all cases students with SEN obtained significantly lower scores than their peers without SEN.

In relation to type of SEN, slightly lower scores were recorded in the group of students with intellectual disability (Table 3), although these differences were not statistically significant.

We also found gender-related differences among the scores. In general, the girls consistently obtained slightly higher scores than the boys, except for the Self-realization sub-scale (Table 4), although, once again, these differences were not significant. This result was also found in the group of students with SEN.

Finally, we studied the influence of age on scores. As can be seen from Table 5, students aged over 14 obtained slightly higher scores, but the differences were not significant in any case. This result is repeated in groups of students with SEN.

Discussion

The purpose of the present investigation was to assess the self-determined behavior of Spanish high school students with intellectual and learning disabilities. Now, we present the conclusions of our study organized into two parts: The first, related to the instrument, and the second concerns the results found and their educational implications.

The measure used here, The Arc's Self-Determination Scale (Wehmeyer, 1995) adapted and translated into Spanish, provided useful information about the students' knowledge of their own capacities and interests, their degree of independence both at home and outside, their capacity to make choices based on their own preferences and their outcome expectancy. There is no doubt about the importance of these aspects, which are all relatively easy to incorporate in a curriculum for which reform is long due, and which must endeavor to include activities that go beyond the mere academic to focus on the students and their needs from an integral perspective.

However, the type of some of the tasks in the scale made it difficult for the students, especially those with special needs associated with intellectual disability, to understand properly. Students found it particularly difficult to complete the Self-regulation subscale. On the whole, they offered an insufficient number of steps to resolve the situations proposed or did not choose the most appropriate ones. Therefore, and following the recommendations of the author of the scale to conduct a more qualitative analysis (Wehmeyer, 1995, 1996), we do not offer more detailed information on this subscale.

On the other hand, the alternative responses available in the Autonomy subscale seem to make the student focus more on the frequency with which he does certain activities, or makes choices, rather than on whether or not he has the opportunities to do these or not, and the extent of these opportunities. This latter aspect is, in fact, much more important and, also gives us information about how restrictive the students' most frequent environments are and the opportunities in them to make choices and decisions or to express preferences.

To some degree, these factors affected the psychometric properties of the scale. Even so, provided that the format of the items and the possible responses are modified appropriately, we consider this to be a measure of doubtless value in the area of education, in that it provides very useful information in relation to crucial aspects of self-determined behavior in students, especially in those with SEN. The scale can be used to evaluate their own beliefs about themselves and their self-determination; and encourages them to become more involved in their own educational process and decision-making; to reflect about their plans for the future and provides information that can be used to develop goals related to self-determined behavior.

In relation to the results found and their educational implications, students with SEN obtained lower Total and subscale scores than their peers without special needs. The greatest differences were observed in the Psychological empowerment subscale. Instead of merely verifying a result previously reported in the literature, this result shows us areas or components of self-determined behavior which plans to promote self-determination in students with special needs should focus on (for example, encouraging students to have an internal locus of control, self-efficacy and expectations of success). It can, therefore, help us to design programs adapted to their characteristics, aimed at enabling students to achieve better personal outcomes in the medium-term and in their adult lives and, ultimately, to be able to enjoy a better quality of life.

Regarding the type of SEN, especially those associated with intellectual disability, in our sample, students with intellectual disability obtained slightly lower scores although these differences were not statistically significant. Our results differ with those of numerous studies that have shown a constant and significant relationship between IQ and level of self-determination. Most studies found that students with intellectual disability obtained significantly lower scores than students with learning disabilities (Nota et al., 2007; Stancliffe et al., 2000; Wehmeyer, 1996; Wehmeyer & Garner, 2003; Wehmeyer, Palmer, Soukup, Garner & Lawrence, 2007; Wehmeyer et al., 2006; Williams-Diehm, Wehmeyer, Palmer, Soukup & Garner, 2008). However, these other studies also described the complex relationship between self-determination and intelligence, with which our findings concur. In 2003, Wehmeyer and Garner conducted a discriminant function analysis to identify predictor variables of the self-determination scores obtained by the individuals with intellectual disability in their sample. They found that only perceptions of choice opportunity (from among four variables, including IQ score) predicted membership in the high self-determination group. In other words, IQ was not a primary contributor to self-determination status when other variables were included in the model, such as the possibility of choosing between alternative options. Other data suggested that self-determination is influenced by environmental factors to a similar extent, or more so, than personal traits, including intelligence (Nota et al., 2007; Wehmeyer & Garner, 2003). Therefore, there appears to be a complex relationship between self-determination, individual characteristics and environmental factors, and intelligence does not appear to be a determining factor for self-determination status.

This result has two clear implications. On the one hand, it is difficult to change a person's IQ, but not that difficult to change elements of his or her environment to help him to make choices and decisions; it is also possible to help him express preferences and desires and to act appropriately to attain them, and to provide the necessary support to resolve problems, establish relevant goals and to look after himself.

Moreover, if IQ does not appear to be a determining variable in students' level of self-determination, we must once again question the appropriateness of using these criteria to qualify or classify students. Furthermore, if real opportunities to choose or make decisions are more determinant than a person's IQ, it would appear that students impediments to practicing self-determination are not conditioned by their SEN, but rather by barriers to the students' presence, learning and participation, which determine their ability to participate fully in the different environments that surround them (Booth, Ainscow & Kingston, 2006). The results also demonstrated the importance of involving the students in decision-making about educational matters that affect them. It is important to remember that students more involved in their Individualized Education Program show higher levels of self-determination (Branding, Bates & Miner, 2009; Dunsmore, 2008; Palmer, Wehmeyer, Gipson & Agran, 2004; Wood, Karvonen, Test, Browder & Algozzine, 2004).

Regarding gender and age, we did not find significant differences in the self-determination scores. However, the data from studies relating these variables and self-determination are scarce and largely inconclusive. Wehmeyer (1996) and Wehmeyer and Garner (2003) did not find significant differences in the self-determination scores although the women's scores

were slightly higher than the men's. However, Soresi, Nota and Ferrari (2004) found that men tended to show a higher level of self-determination than women, although two years later the same authors (Nota et al., 2007) found that women obtained the higher scores. These results show the need to continue studying the effect of this variable to obtain more conclusive results.

As with gender, data on the effects of age on self-determined behavior are not conclusive. Initially, it would seem logical to presume that young people acquire the knowledge and skills necessary to enjoy a greater level of self-determination as they pass through adolescence and youth. Hence, in a sample of students between 15 and 18 years old, Wehmeyer (1996) found a consistent tendency to obtain higher scores with increasing age of the students. However, after this Wehmeyer and Garner (2003) demonstrated that age was not a variable that could be used to place individuals in his sample in the high or low self-determination groups (although it was a predictive variable of level of autonomy). Years later, Wehmeyer and colleagues (2006) found no significant age-related differences among students either in the total scores or the subscale scores. Nota and colleagues (2007) found that the experience and opportunities to make choices were more determining than age at predicting the level of self-determination of students in his study. These results also show the need to continue studying the importance of this variable in the level of self-determination in adolescents.

To summarize, the study and results presented here can be considered as a first step in developments that must take place over the next few years to improve students' quality of life by encouraging self-determination. Although the study provides important information, there are limitations. First, participants conformed a convenience sample. It is possible that they were quite similar in cognitive and communicative skills. So additional research is needs to investigate the appropriateness of the scale with students with varying learning and support needs. Second, is necessary to study in greater depth and adapt the Self-regulation subscale. Despite these and other limitations that must be overcome in future studies this scale and results presented offer numerous possibilities for analysis and action, the two most important of which are: 1) to begin to design activities to promote self-determination from educational context and to test their efficacy, and 2) to help the concept of self-determination to become a standard part of educational debates and to begin training educators in aspects of self-determination. This opens up a wide range of possible lines of work and also benefits, especially in relation to improving the integral and comprehensive education of an increasingly diverse student population with its new demands and needs.

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Table 1

Demographic characteristics of the sample

	n	%
Total number of students	371	100%
Gender		
Male	194	52.3%
Female	177	47.7%
Age		
11 years	6	1.6%
12 years	49	13.2%
13 years	83	22.4%
14 years	69	18.6%
15 years	87	23.4%
16 years	58	15.6%
17 years	19	5.1%
Presence of SEN/ Type of SEN		
Students without SEN	200	53.6 %
Students with SEN:	171	46.4%
•Learning disabilities	97	26.2%
•Borderline and Intellectual disability with higher IQ scores	43	11.6%
•Mild Intellectual Disability	32	8.6%

Table 2

Mean score obtained by all the students

	Students with SEN (*n* = 171)	**Students without SEN (*n* =200)**
TOTAL SCALE	71.01	74.75
Autonomy	57.32	58.67
Psychological empowerment	84.25	91.19
Self-realization	72.8	76.67

Table 3

Mean scores obtained by students with mild intellectual disability, borderline and with intellectual disability with higher IQ scores, and learning disabilities

	Students with mild ID or borderline and with ID with higher IQ scores (*n* = 77)	Students with learning disabilities (*n* = 95)
TOTAL SCALE	69.52	72.20
Autonomy	56.63	57.87
Psychological empowerment	82.25	85.87
Self-realization	73	72.67

Table 4

Mean score obtained by students in relation to gender

	Total Group		Students with SEN	
	Females (*n* = 177)	**Males (*n* = 194)**	**Females (*n* = 66)**	**Males (*n* = 105)**
TOTAL SCALE	70.66	70.03	70.12	68.27
Autonomy	58.69	56.46	57.08	54.50
Psychological empowerment	85.19	83.62	85.65	83.79
Self-realization	72.33	73.07	72.58	73.13

Table 5

Mean score obtained by students in relation to age

	Total group		Students with SEN	
	11 – 14 years (*n* = 188)	**15 – 17 years (*n* = 145)**	**11 – 14 years (*n* = 70)**	**15 – 17 years (*n* = 86)**
TOTAL SCALE	70.65	71.39	68.26	69.84
Autonomy	56.95	57.99	55.07	56.26
Psychological empowerment	82.69	85	82.02	85.16
Self-realization	70.73	73.47	70.97	73.54