



STUDY ON THE IDENTIFICATION GIFTED CHILDREN

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ABSTRACT: Contemporary thinking challenges the view that giftedness and high IQ are synonymous. Contemporary thinking also challenges the view that being gifted is something real. A number of authorities in the gifted field advocate a paradigm shift; moving away from emphasizing categorical definitions of giftedness and adopting a talent development perspective. This shift to a developmental perspective advocates that we consider giftedness as the unfolding and transforming of uncanny potential among young children into actual outstanding performance and accomplishments in adulthood. The early identification and ongoing assessment of individuals of uncommon ability takes on a more complex, nuanced, and rich perspective when viewed from a developmental model.

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INTRODUCTION

Identifying students with higher abilities has become a subject of great interest for researchers, education administrators, teachers and families alike. However, it is also a controversial issue because there is still no agreement on which variables must be taken into account to determine whether a student has higher abilities, or how these variables should be measured in these cases.

The different conceptualizations of higher intellectual abilities, either from educational, socio-political or psychometric perspectives, have traditionally tried to identify those children who are exceptional (Pfeiffer, 2015). One of the models that has received more attention is the Three-Ring Conception of Giftedness by Renzulli (1978). This model has helped establish some of the general criteria being used to classify students with higher abilities today. This author defined high intellectual ability as a consistent interaction between three basic human traits that characterize high-ability people: (a) above-average general intelligence; (b) creativity (defined as “that cluster of traits that encompasses curiosity, originality, ingenuity, and a willingness to challenge convention and tradition”; and (c) task commitment (which “represents a non-intellective cluster of traits found consistently in creative and productive individuals, including perseverance, determination, will power or positive energy”) (Renzulli, 2012). This model has been used as a

reference in Spanish schools to determine which students are gifted and which students are not gifted. In which the creativity acquiring, at a practical level, great protagonism, above-average commitment. Moreover, some studies show that gifted learners are more creative than average learners, for example, when evaluating divergent thinking or amount of original ideas (Ferrando et al., 2008; Jauk et al., 2013).

However, this is not the only model to be considered. Other authors such as Jeltova and Grigorenko (2005), Calero et al. (2007), and Pfeiffer, (2012) consider high-ability children as those who demonstrate a higher likelihood of attaining significant achievements in culturally valued domains. These authors take into account a student’s intellectual abilities, while also emphasizing the relevance of certain personality traits and the role of stimulating social environments that can effectively favor an individual’s learning in specific fields. However, regardless of the theoretical model, there is agreement today that higher intellectual ability is a multi-dimensional construct, and that more human and material resources are needed to identify this often-latent potential in order to provide appropriate educational support to such students (Tourón et al., 1998; Pfeiffer, 2015). It is therefore fundamental that schools and professionals are provided with the right tools to identify high-ability students as early as possible (Reis and Renzulli, 2010).

Traditionally, intellectual ability was the central variable used to discriminate high-ability individuals from the average population. Nowadays, however, various authors agree that intellectual quotient (IQ) cannot be used as a single variable in the conceptualization of high abilities (Calero and García-Martín, 2011; Pfeiffer, 2015). For example, as discussed by Wellisch and Brown (2012) in their study, some authors suggest that the most reliable information would be based on the perception of teachers and families. Nevertheless, IQ remains an important factor to be assessed and, when used in conjunction with other variables, it can provide essential information concerning the identification of students with exceptional abilities (Sternberg, 2010; Renzulli and Gaesser, 2015). Moreover, many educational policies establish that, in order to implement effective identification and intervention processes, a non-negotiable criterion is to evaluate the student's intellectual capacity by means of standardized tests (Wet and Gubbins, 2011). Although other criteria may be used, there are currently authors who consider that these criteria cannot equal the objectivity and reliability of IQ measurements and tasks, especially for students with learning difficulties (Lovett and Lewandowski, 2006). This broader approach to assessment is important, since the responsibility of detecting high-ability students often falls to schools, which commonly only pay attention to the more traditional signals related to high-ability, such as high levels of academic achievement. Evaluation and intervention recommendations come from teachers in most cases (Renzulli and Gaesser, 2015); however, most teachers do not have a vast knowledge in the identification of high-ability students. This may lead to mistakes during the assessment process (Tourón et al., 2006; Reis and Renzulli, 2010) and under-identification of some students, especially those from lower socio-economic backgrounds (Moon and Brighton, 2008; Baker, 2011; Freeman, 2011; Wellisch and Brown, 2012), and/or those who have socio-emotional problems and may appear to have low levels of competence in basic learning processes (emulating students with learning difficulties) (Silverman, 2009; Wellisch and Brown, 2012).

Therefore, although the exclusive use of standardized tests to assess intellectual ability has its detractors (Pfeiffer, 2012) and these tests are not the only measures available nowadays, the fact remains that standardized tests have been accepted as reliable measures of identifying students with higher abilities to date (Lovett and Lewandowski, 2006; Lovett and Sparks, 2011; Erwin and Worrell, 2012) and

as Carman (2013) suggests “no matter how often researchers suggest that an IQ score is not the only way of determining giftedness, it is still the most common method of identifying gifted participants for research, either alone or in combination with other criteria.” At a practical level, in Spain the information obtained from standardized tests is the first criterion used to determine if a student may have higher abilities, and is essential for continuation of the evaluation process. This measure is used as a baseline analysis of the students' capacities and offers a starting point for the detection of higher intellectual abilities (Renzulli, 2012; Wellisch and Brown, 2012).

Accepting this condition as necessary, a new problem arises concerning which standardized tests to choose and the degree of congruence required between different measures. This difficulty is associated, in part, with the definition of intelligence itself and with the variables that are considered relevant to measure this construct (e.g., abstract reasoning, vocabulary, numerical knowledge). Standardized tests designed to evaluate the IQ are based on different conceptualizations of intelligence and this is an important aspect to consider when deciding which measure should be used. Some authors recommend the use of non-verbal tests to avoid cultural and linguistic biases (Naglieri and Ford, 2003) such as the Factor “g” test (Cattell and Cattell, 1994) or “Matrices” (Sánchez-Sánchez et al., 2015), both of which are considered good estimators of fluid intelligence and general intellectual ability (or “g” factor). Other authors, in order to provide a more contextual perspective to the conceptualization of the intelligence, give greater weight to the evaluation of psychological variables relevant to the execution of school tasks, thus estimating intellectual ability by focusing on school competences rather than on purely intellectual capacities (Thurstone and Thurstone, 2005). Finally, some authors state that appropriate testing should take the form of batteries of tests that also collect information on a wide range of variables that, in the last decades, have demonstrated they are good indicators of intelligence, such as students' verbal competence, together with components such as working memory, processing speed, comprehension, analytical capacity, and so forth (Sternberg, 2010; Pierson et al., 2012).

At this point it is worth noting the current interest in the research community in hierarchical models of intelligence and their tests, and specifically in the Cattell–Horn–Carroll Theory of Cognitive Abilities (CHC) (McGrew, 2005). This theory establishes three strata in the conceptualization of

intelligence: stratum III – general or global intelligence; stratum II (broad) – 10 general intelligence abilities which are the main focus of interest in the assessment of intellectual ability and are fluid and crystallized intelligence, short-term or immediate memory, long-term memory storage and retrieval, processing speed, quantitative reasoning, reacting or decision making speed, visual processing, auditory processing, reading ability, and writing ability; and stratum I (narrow) – made up of more specific components such as inductive processes, vocabulary, visual memory, spatial relations, and general sequential reasoning, and which would conform to the general cognitive factors of stratum II.

Although this theory is gradually having an impact on the evaluation and identification of higher ability students at the international level (Pfeiffer, 2015), and new assessment tools are being designed or adapted based on this model (e.g., WISC-V; Wechsler, 2014), at a practical level, at least in Spain, it has not yet become established as a specific assessment protocol adjusted to this perspective. Therefore, both the detection model and the tests used ultimately depend on the experience and knowledge of the professionals in charge of the evaluation, and the assessment measures available in each case.

The present study had two objectives. First, following Renzulli's (1978) model, it aimed to describe intellectual capacities and creativity levels of a sample of primary school students from northern Spain, with the aim of detecting and analysing potential cases of high ability where IQ is 130 or above – or two typical deviations above the average. Students from grades 3 and 6 were chosen as representative of this stage, and two variables of measures, intellectual capacity and creativity, were measured. Second, taking into account that depending on the tests used the students identified as gifted children may be different, this study aimed to establish the congruence and efficacies of different types of intellectual ability measures in order to determine if they concur, with respect to distinguishing students with higher abilities from average students. In schools it is common to use only a test of intellectual capacity in the processes of identification. Therefore, it is necessary to determine if these results in incorrect identification, either by over- or under-identification, due to inconsistencies between different type tests results.

In this analysis, although they are important variables in Renzulli's (1978) model, task involvement and academic performance are not

included as discriminating criteria because previous literature suggests that many students with high ability fail in the academic environment due to related factors, such as lack of motivation, and poor recognition by teachers of their real educational needs, both of which can also arise due to “teacher-bias” (Reis and Renzulli, 2004, 2009).

REVIEW OF LITERATURE:

There is an urgent need to apply such theories to fill the gap between the content learned by students and how they actually apply this content in daily life. One theory that advances a multidimensional view of intelligence is successful intelligence theory. Successful intelligence theory posits that intelligent behavior arises from a balance between analytical, creative, and practical abilities and that these abilities function collectively to allow individuals to achieve success within their particular sociocultural contexts (Sternberg, 1997, 1999b, 2003, 2005b). Research (e.g., Stemler, Sternberg, Grigorenko, Jarvin & Sharpes, 2009; Sternberg & Davidson, 2005; Sternberg et al., 2000) indicates that individuals demonstrate a mixture of creative, analytical, and practical abilities, but to different degrees. What makes someone gifted is having high measures of these three abilities in isolation or combination, as well as the ability to use them to one's best advantage. Therefore, giftedness involves the ability to strike a balance in managing the three abilities efficiently. Students who excel in creativity can generate ideas of high quality, but they need high analytical ability that enables them to assess and evaluate ideas to be more effective. Making use of one's ideas is as important as one's ability to create new ideas. So, gifted students are equally in need of practical intelligence to translate their ideas into a practical program for action. This requires the ability to convince others of the worth of their ideas and skill in developing an approach for applying these ideas practically. Successful intelligence theory highlights the importance of the integration between more than one factor in achieving giftedness. Hence, people with successful intelligence can identify their own strengths and elicit the utmost benefit from them. In addition, they can identify, evaluate, and compensate for weaknesses. People who enjoy successful intelligence can also adapt to their environment by striking a balance between the use of analytical, creative, and practical abilities (Sternberg, 1999b). In addition, the integration between the three abilities can be utilized in different domains. These abilities are flexible, so they can be promoted through training and enrichment programs (Dweck, 1999; Sternberg, 1999a, 2003; Sternberg & Grigorenko,

2007). The current study is a trial to study the effects of a school enrichment program designed by the researchers (based on the OEM) and adopted by the Ministry of Education in Saudi Arabia to develop the analytical, creative, and practical abilities of elementary students.

Articles in the Special Issue

This special issue brings together a group of experts from a variety of fields who share an interest in challenging outmoded ways of identifying and assessing high-ability students. Pierson, Kilmer, Rothlisberg, and McIntosh (2012) provide an overview on the use of brief intelligence tests with intellectually gifted students. They raise a number of cautionary notes and cogent recommendations in the appropriate use of brief intelligence tests. Lohman and Gambrell (2012) discuss the use of language-reduced (nonverbal) ability tests as a popular talent identification tool for English language learner (ELL) children. They provide compelling evidence that the use of nonverbal tests with minority group students and students from low SES should measure more than figural reasoning abilities. Assouline and Lupklowksi-Shoplik discuss the talent search model to identify high-ability students. This innovative model developed by Julian Stanley (1996) at Johns Hopkins University eschewed the notion of giftedness as a global category in favor of a focus on specific domains of academic interest (Keating, 2009) and has been successfully adopted by a number of leading talent search programs nationwide. Kaufman, Plucker, and Russell (2012) provide a cogent discourse on the construct of creativity and on the alternative ways to measure creativity. They discuss the creativity construct and strengths and limitations of existing measures. Erwin and Worrell (2012) address the reasons for the underrepresentation of some racial and ethnic groups in gifted and talented programs. Their thesis is that the disproportionately low numbers are not the result of problems with assessment tests but rather a reflection of the intractable and longstanding achievement gap in the United States. Kerr and her research team report on the development of a new assessment measure, the Distance from Privilege Measures. The scales quantify distance from privilege to understand how populations of high ability minority group students differ from majority, privileged individuals. The scales hold the promise of increasing the number of typically underrepresented high ability groups entering the science, technology, engineering, and mathematics (STEM) fields (Kerr et al., 2012). Brown (2012) address the timely question of whether the new Response to Intervention (RtI) movement is compatible with gifted assessment.

Finally, Grigorenko, Sternberg, and their colleagues provide data on a new gifted assessment tool, Aurora, designed to change how we both measure and conceptualize giftedness (Kornilov, Tan, Elliott, Sternberg, & Grigorenko, 2012).

Concluding Comments

A number of the articles in the special issue suggest what I/O psychologists might consider Type I organizational changes for the gifted field; recommendations for improving how existing tests and procedures can increase the validity and utility of assessment information with high-ability students. A few of the articles suggest more bold Type II changes; new ways of conceptualizing the gifted construct and new assessment tools that can serve high-ability students within a talent development paradigm. Together, the special issue provides a diversity of articles on current and emerging perspectives on the assessment of high-ability students. I hope that this special issue serves as a catalyst for new and innovative ways for the field to consider psychological assessment for students of uncommon ability. Identifying high-ability students is not easy business, especially as we move toward a more sophisticated, nuanced, and developmental approach to giftedness. The development of talent among students of uncommon ability requires more than simply the assessment of general intellectual ability. And the ultimate success of gifted students in culturally valued domains will necessitate understanding the pathways to expertise and require the ongoing linkage of multidimensional assessment information and multitiered, multifaceted interventions.

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