The Role of Standardized Intelligence Measures in Testing for Giftedness

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Introduction

The purpose of this article is to acquaint readers with some of the salient issues that revolve around the use of intelligence tests in gifted education placement decisions. The current article will explain some of the pros and cons regarding the use of individually administered intelligence tests, how IQ tests fit into the broader assessment of giftedness, and some tips for parents who may have a child that is undergoing such an assessment.

Issues Surrounding the Use of IQ Tests

Intelligence tests have encountered criticism from some. For example, minority and economically disadvantaged students tend to score lower than other students and, consequently, are often underrepresented in gifted and talented programs. Further, some critics charge that the current, widely used, IQ tests are not guided by a plausible theory of how the brain actually operates and do not accurately measure more contemporary ideas of what "intelligence" actually is. Indeed, some feel that an expanded view of intelligence should guide the testing process (e.g. Plucker, 1998).

An example of such an expanded view would be Gardner's theory of Multiple Intelligences (Gardner, 1983). Gardner's theory has gained a lot of momentum in the last twenty years. It proposes the existence of at least eight distinct areas in which a student may be particularly adept. Proponents of this theory like the way that it widens the net in terms of identifying more areas in which a student may be talented and, so, in how many different children might be identified. This has particular implications for the identification of some minority groups who traditionally have been under-identified with more conventional approaches. Critics of Gardner's theory contend that it has not been thoroughly validated through statistical measures.

Another major issue is the inconsistent use of these tests. Some school districts rely heavily, or even exclusively, on standardized IQ test scores to identify giftedness, yet other districts may use a multidimensional procedure that views test scores as only one piece of a much larger picture of a child's talents. Indeed, opponents of "IQ-only" identification point out that these tests may assess only a narrow range of ability, neglecting a child's strengths in other areas, such as spatial reasoning or nonacademic talents.

Still, such tests have their merits. Individually administered tests, such as the Wechsler Intelligence Scale for Children, Third Edition (WISC-III) and the Stanford-Binet, Fourth Edition (SB-IV) (Note: newer versions of each of these scales have recently been published), have been researched and analyzed to a great extent. While they do not lend themselves perfectly to some views of intelligence, they have historically been fairly good predictors of school achievement (expected "ability"). These tests are highly reliable - they provide similar results if taken, say, several months apart - and they have been studied and refined over many years or decades with thousands of children. So, intelligence tests can, and do, provide valuable information regarding a child's abilities and, despite some criticism, they are still widely used to make placement decisions for gifted, as well as learning disabled and intellectually challenged students. Because they have been standardized and researched to a great deal, they are often seen as adding a degree of accountability to the identification process. For some, having one standardized score from a highly researched and used instrument may make decision-making an easier, less relative process. Further, their solid statistical properties have probably led to their use in decisions where accountability issues and government funding are at stake. As we will see next, however, IQ tests should always be considered in the context of a larger, more thorough, process of consideration.

Multi-dimensional Assessment Procedure

Indeed, being able to look at just one number would surely simplify the selection process. However, today, and in the past, most responsible decisions are not made using only one score from one particular instrument. Even in the first half of the 20th century, one of the founders of gifted education, Leta Hollingworth, emphasized the collection and examination of various sources of information when making decisions about giftedness (Greenberg & Bruner, 1941, as cited in Klein, 2000). More than ever, current testing philosophy emphasizes the importance of using a variety of assessment measures that may tap into talents that intelligence tests, alone, do not address. Such a "multi-dimensional" process is also driven by the many ways in which a child may be seen as exceptional. For example, here is a federal definition of what makes a student exceptional:

Children and youth with outstanding talent perform or show the potential for performing at remarkably high levels of accomplishment when compared with others of their age, experience, or environment. These children and youth exhibit high performance capability in the intellectual, creative, and/or artistic areas, possess an unusual leadership capacity. Or excel on specific academic fields. They require services or activities not ordinarily provided by the schools. Outstanding talents are present in children and youth from all cultural backgrounds, across all economic strata, and in all

Likewise, many states have their own definitions that are equally broad. For example, this is how Indiana lists the different areas in which a child can be identified as gifted:

IC 20-10.1-5.1 - Chapter 5.1. Education Programs for High Ability Students

IC 20-10.1-5.1-1 Sec. 1. As used in this chapter, "domain" includes the following areas of aptitude and talent:(1) General intellectual. (2) General creative. (3) Specific academic. (4) Technical and practical arts.(5) Visual and performing arts. (6) Interpersonal. (Indiana Department of Education [IDOE], 2002)

You can most likely find your state's definition, along with relevant legal codes, on the Internet or by contacting your state's department of education. The above definitions make clear the need to use a variety of techniques to assess the many ways in which a child may exhibit advanced abilities. Jerome Sattler, a leader in testing issues, notes that a typical system for identifying gifted children would most likely include parent and teacher reports of the child's behavior, a review of her creative work, direct observation of the child by a professional like a trained school psychologist, and standardized tests (Sattler, 1992).

After his teacher or parent has identified a particular student, the student will likely participate in some or all of the assessment procedures listed above. Although only a part of the overall assessment process, individually administered IQ tests still carry some weight in the decision making process.

The Bottom Line

Despite some criticisms and limitations of individually administered intelligence tests, they may play a valuable role in the identification of gifted individuals. No single assessment instrument or score should ever be relied upon for making such high stakes decisions. However, used as part of a comprehensive multi-faceted procedure, intelligence tests can still yield useful information.

References


