

Talent search research: what have we learned?

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This chapter summarizes the lessons learned from the over 25 years of research conducted by the Center for Talented Youth, as well as the prior 10 years of research conducted by Dr Julian Stanley and his graduate students. This summary also includes work done by the several other talent searches (Duke, Northwestern and Rocky Mountain), although a complete description of their work can be found in the individual articles written by each. The findings from the hundreds of research studies conducted validate the talent search identification model and process, as well as the programs developed to meet the needs of identified students. In addition, the authors have condensed the findings from numerous research projects examining the cognitive, social, personality and academic development of the students CTY serves.

Introduction

When Julian Stanley established the 'Study of Mathematically Precocious Youth' (SMPY) in 1971 to find and serve students with advanced mathematical and scientific abilities his work was heavily research based from the very beginning. Although the first talent search was only held in March 1972, an article reporting on this project appeared just months later in the *Educational Researcher*; a truly impressive feat (Keating & Stanley, 1972). The next year Stanley (1973) had a long article in the *Educational Psychologist* and the first full-length book was published a year after that, describing SMPY's pioneering efforts to investigate the cognitive and affective characteristics and needs of precocious students (Stanley *et al.*, 1974). Additional volumes (Keating, 1976; Stanley *et al.*, 1977; George *et al.*, 1979; Fox *et al.*, 1980; Benbow & Stanley, 1983a; Benbow & Lubinski, 1996) and a huge number of articles (see, for example, Stanley, 1976a,b,c,d, 1977/1978, 1978, 1979, 1996; Stanley & George, 1978, 1980; Stanley & Benbow, 1982) followed, summarizing SMPY's research.

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As other university-based talent searches were established, including the Center for Talented Youth (CTY) at Johns Hopkins University, the Talent Identification Program (TIP) at Duke University, the Center for Talent Development (CTD) at Northwestern University and the Rocky Mountain Talent Search (RMTS) at the University of Denver, the legacy of SMPY, that their efforts to serve gifted students should be research based, was passed on. As a result, literally hundreds of articles, books chapters and books have been published by educators and researchers associated with the talent search centers. This article will summarize some of what we have learned about talent development from this research.

Predictive validity of talent search scores

Using a college admissions test designed for high-school seniors to identify academic talent among Grade 7 and 8 students was quite a radical idea when the first talent search was held. Parents and educators alike feared that it would be much too difficult for middle-school students, even those with advanced academic abilities. However, research strongly supports the use of above-level aptitude tests for talent identification.

The talent searches assess students who hit the ceiling on in-grade tests and give them a test designed for older students, a more difficult test that spreads their performance into a new distribution of scores. Students' performance in the talent searches confirms that the above-level tests are not too difficult for gifted middle-school students because many Grade 7 and 8 talent search participants score above the mean of college-bound high-school seniors (Benbow, 1992; Olszewski-Kubilius, 1998; Wendler *et al.*, 2001). Yet the process also discriminates well within the group tested so that students with exceptionally advanced reasoning abilities can be identified and their educational programs adjusted to include more advanced content (Stanley, 1976b; Stanley & Benbow, 1981; Lupkowski-Shoplik *et al.*, 2003; Olszewski-Kubilius, 2004).

In 1977 Julian Stanley published an article entitled "The predictive value of the SAT for brilliant 7th and 8th graders" in which he documented the range of scores obtained on the SAT during the first four talent searches at Johns Hopkins University (Stanley, 1977/1978). Numerous studies since then have shown the pattern continuing (see, for example, Olszewski-Kubilius, 1998; Barnett & Juhasz, 2001). The two-tier process whereby in-level tests are first utilized to identify students who would benefit from participating in the above level assessment has also been validated (Ebmeier & Schmulbach, 1989).

In recommending program options for talent search students scores used for entrance into fast paced classes have been shown to be valid predictors of success (see, for example, Bartkovich & Mezynski, 1981; Olszewski-Kubilius *et al.*, 1989; Gustin & Corazza, 1994). Other research has linked high performance in the talent searches to a pattern of taking more advanced courses in high-school, to more honors and awards in high-school and to higher educational aspirations (Burton, 1988; Wilder & Casserly, 1988; Barnett & Durden, 1993; Mills &

