



# Pediatric Performance Validity Testing: State of the Field and Current Research

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## Introduction

The importance of performance validity testing (PVT) in both clinical and forensic neuropsychological settings has been well established within the adult literature. Furthermore, the use and adoption of PVT tests amongst individual clinicians are high. Consensus for the use of empirically supported and validated PVTs exists amongst clinicians and major professional organizations of neuropsychology. Both the American Academy of Clinical Neuropsychology (AACN) and the National Association of Neuropsychology (NAN; Bush et al. 2005; Heilbrunner et al. 2009) recommend the use of validity testing in neuropsychological evaluations. Yet, content in the form of empirically reviewed articles, case studies, textbooks—much less tests and measures designed for pediatric populations—has been routinely ignored, despite recommendations to the contrary (Heilbrunner et al. 2009).

There are a number of reasons why pediatric neuropsychology has been slower to become acquainted with validity testing. In 2016, Brooks, Ploetz, and Kirkwood conducted a survey of pediatric neuropsychologists' attitudes and practices with regard to PVT usage. One of their most striking findings was that only 30% of pediatric respondents reported being involved in forensic evaluations, where the issue of effort assessment is most keen, compared to 73% from a similar study polling adult neuropsychologists (Martin et al. 2015; Brooks et al. 2016.) Brooks and colleagues' findings also suggest a slower rate of PVT adoption and usage amongst pediatric clinicians. This may be occurring for several reasons. First, pediatric neuropsychology enjoys wider variability in background and training of clinicians than is seen in our adult counterparts. For example, school psychologists made up

10% of respondents to the Brooks, Ploetz, and Kirkwood survey. In contrast, a similar survey of adult neuropsychologists conducted by Martin, Schroeder, and Odland in 2015 showed 99% of respondents to hold either a Ph.D. or PsyD in Clinical Psychology. This is relevant because a brief search of major journals in the field of school psychology yielded only four empirical studies directly addressing effort and validity testing, which suggests that validity testing may not be part of the school psychology training paradigm.

The first article included in this special topics section explores common clinical questions for school psychologists (i.e., specific learning disabilities, SLDs). Harrison and Armstrong ([this issue](#)) explore a relatively new standalone PVT, designed specifically for use with pediatric populations, the automated sequencing task (AST; Kirkwood et al. 2014). The AST is unique to many performance validity tasks in that it explores cognitive speed and its relationship with effort, as opposed to the more well-known paradigm of poor memory feigning. This somewhat unique paradigm of speed rather than memory may be better suited for detecting poor effort in children. Harrison and Armstrong expanded upon the AST literature by exploring pre-existing conditions in childhood known to effect processing speed (i.e., specific learning disabilities) to better understand how the AST might perform in unique pediatric groups.

Training effects can again be noted when over 90% of respondents to the previously mentioned survey (Brooks and colleagues) reported using behavioral observations and discrepancies in the records to determine effort, but only 60.3% used scores from embedded measures. The second article for this special topics section builds upon the emerging literature showing the clinical utility in using pre-existing and well-validated clinical measures, and then either tweaking or using already generated measures of performance to evaluate for effort. Erdodi et al. ([This Issue](#)) expanded upon previous research which developed an add-on task to the California Verbal Learning Test for Children (CVLT-C, Delis et. al., 1994) which serves as a PVT. Like many of the embedded

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measures developed for adult neuropsychological tasks, this PVT is inexpensive and adds minimal time to an overall battery. In exploring children's performances on this task, Erdodi and colleagues found excellent specificity.

In contrast, the third article in the series builds upon a solid foundation of research looking at effort testing in adults through embedded performance indicators on memory tasks, Brooks et al. ([This issue](#)) explored the sensitivity and specificity of the embedded validity indicator which was designed to be included in the Child and Adolescent Memory Profile (ChAMP; Sherman and Brooks 2015), a battery of memory tasks specifically designed for use with a pediatric population.

A second possible reason why pediatric practitioners have not adopted the use of PVTs in standard clinical practice at the rates of adult counterparts may be due to a lack of guidance on the issues from professional organizations or major publications. It was not until 2009 that a position paper called for and encouraged the development of validity testing in pediatric populations (Heilbrunner et al. 2009). Given the length of time it takes to publish peer-reviewed materials, it should not be any wonder that we are just starting to see a major uptick of published manuscripts on this subject matter. At the time of this paper, six professional neuropsychological surveys have been published examining professional attitudes and practices with regard to validity testing in adult neuropsychology (Mittenberg et al. 2002; Slick et al. 2004; Sharland and Gfeller 2007; McCarter et al. 2009; Dandachi-FitzGerald et al. 2013; Martin et al. 2015); yet, only recently has a single survey been published on pediatric practices (Brooks et al. 2016).

Pediatric assessment tools also tend to be used by a wider range of practitioners than adult neuropsychological assessments. While there is evidence that lifespan neuropsychologist practitioners who are board certified are using PVTs at a high rate, the same may not be true for other consumers of pediatric assessment tools (e.g., school psychologists, speech and language pathologists, social workers, and medical doctors). It is important, therefore, that research within the field be disseminated to outside stakeholders. For example, research on non-credible test performance has ranged from 30 to 50%, depending on population and setting (Ardolf et al. 2007; Larrabee 2003). In contrast, similar research in pediatric groups has estimated as high as 60% of assessments may be invalid dependent on population and setting (Chafetz 2008). This type of knowledge, while certainly bolstering the case for PVT usage, may also serve as a "rallying point" for non-psychologist and psychologists alike to change their clinical practice with regard to PVT usage. It is in this area that the last article in this special series attempts to provide additional information and direction. Mazur-Mosiewicz and colleagues ([this issue](#)) examined one of the most commonly used instruments of PVT, the Tests of Memory Malingering (TOMM). Originally, the TOMM was designed for adult populations and

later research confirmed the use of generally accepted norms in a downward approach. Mazur and colleagues examined the published research on downward extensions in order to provide guidelines for clinicians using the TOMM with children.

Even when there is the will to use PVTs in pediatric assessment, the way at times is not always clear. Downward norms for popular PVTs are not always available and there are few options for effort measures which were developed with children and/or developmental issues in mind. The most commonly used validity tests by pediatric neuropsychologists (e.g., WMT, TOMM, VSVT) are typically tests which were designed for use with adult populations and may not have had empirical support for their use in pediatric populations (Brooks et al. 2016). Additionally, adult practitioners report an average of 4–5 PVTs for clinical assessments (i.e., stand-alone and embedded) and 6 for forensic evaluations. In contrast, pediatric clinicians who use PVTs report using only 1–2 PVTs in an evaluation. Tellingly, that number increases based on the percentage of patients a clinician sees who are adults (i.e., the higher the percentage of adult patients the more frequent PVTs were administered).

Further differences can be seen in the comparison of best practices between pediatric and adult neuropsychologists which affect usage and possible interpretation of validity measures. For example, only 8% of clinicians report providing a specific warning about effort testing to pediatric examinees. In contrast, 22% of clinicians routinely warn adult examinees about effort measures (Sharland and Gfeller 2007). Word choice and report language also change, with pediatric neuropsychologists more likely to use terms like "inconsistent" when describing the effort as opposed to "exaggeration," "feigning," or "malingering" (Brooks et al. 2005). This difference in language becomes an important point when you consider Faust and colleagues' early work where malingering was overlooked or not considered in a differential by a majority of pediatric clinicians (Faust et al. 1998a, b).

Another major issue unique to pediatric neuropsychology is the developmental (i.e., cognitive and emotional) changes that a child is progressing through. The intervals on these changes are much shorter in children than in mature adults. This may impact our conceptualization of effort. To put it plainly, the "one size fits all" model may not work with children. What is clear is that children as young as 4 years old have enough of an understanding of lying and telling falsehoods to intentionally deceive (Newton et al. 2000), which seems ample support for the development of child-based measures of effort. This may naturally cause the reader to wonder about motivations in children for deception and subsequent poor effort. The dynamics of this process are likely different from adults and are complicated by the presence of authority figures such as parents. Studies addressing these complications are certainly needed and worthwhile.

There is ample evidence to suggest that further research on pediatric PVTs is both worthwhile and an unacceptable gap in the literature which needs to be filled. While pediatric clinicians may not set out to be involved in forensic assessment, the potential, as in all clinical evaluations, exists that a legal issue may evolve. Furthermore, unique evaluations performed only within pediatric populations (e.g., 504/IEP determinations and eligibility, SSI determinations) are evaluations which involve high-stakes decisions, which can have lasting consequences. The purpose of this special topics section is to address some of the issues outlined above. The manuscripts contained in this special topics section are an attempt to examine PVTs and effort testing from a uniquely pediatric point of view.

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## Compliance with Ethical Standards

This article does not contain any studies with human participants or animals performed by the author.

**Conflict of Interest** The author declares that there is no conflict of interest.

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