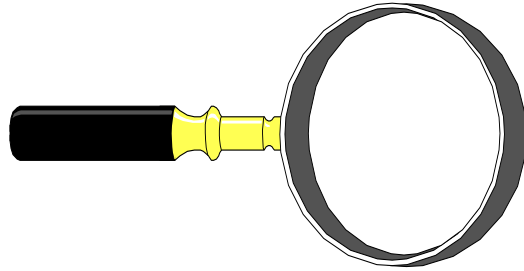


**Take a closer look!**



**IS PAES VALIDATED?  
*PAES REALLY WORKS!***

**Introduction  
To PAES Technical  
Manual and Validation Studies**

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## Introduction

The Practical Assessment Exploration System (PAES) (Swisher, 1987) is an alternative measure of vocational potential that employs authentic, dynamic, and performance-based assessment methods to identify transition planning needs associated with employment and vocational training. This manual presents the results of three research studies that examined the validity of the PAES for its usefulness as a transition assessment tool for students with disabilities. Contemporary views of validity as a unitary concept with both educational and social implications are discussed, as well as, the lack of empirical research that evaluates the validity of measures used for transition planning. Research for the three studies presented in this manual investigated a broad base of validity and reliability issues concerning the usefulness of the PAES for transition planning. The three studies merge together to form a global view of validity that is consistent with current views of validity research. Moreover, this research provides validity evidence for the PAES that serves to evaluate the utility of curriculum-embedded authentic assessments. Overall results support the validity of the PAES for transition planning, guiding instruction, and affecting student behavior.

### **The First Study – The Predictive Capabilities of the PAES**

The first study (Swisher & Green, 1998) was designed to investigate how well scores from the PAES would predict future performance on actual jobs in the community. This study compared the predictive capability of scores on the PAES tasks with scores from two traditional paper-pencil aptitude tests. Assessment results were obtained for students who had participated in the PAES class and had also completed the two traditional aptitude tests. Scores from the PAES and the two traditional tests were then correlated with student work outcomes obtained three to five years later. The PAES scores were strongly related to the level of support students required on a job and tended to be related to the other two outcomes – salary and number of hours worked. Scores from the two traditional paper-pencil tests were almost uniformly very weakly related to student performance on a job.

### **The Second Study – Usefulness of the PAES for Making Educational Decisions and Influencing Student Behavior**

The second study (Swisher, 1997) investigated several validity issues through the use of a questionnaire provided to educators who have different levels of familiarity with the PAES. The second study had three purposes. The first purpose was to evaluate the usefulness of the PAES for making decisions related to transition planning. Teachers who participated in the study were asked to rate the PAES and two types of paper-pencil tests for their usefulness in making decisions related to placement, planning, and support needs of students. The second purpose of the second study was to investigate how well teachers interpret the results of the PAES Summary Report. A major component of test validity that is often overlooked by test developers and test users, is whether test results are interpreted appropriately and whether the inferences made about students are meaningful. To address this aspect of validity, teachers examined different PAES summary reports and made inferences about student performance, interests, and instructional needs. Teachers then used their score-based inferences to make various planning and placement decisions related to various types of jobs and vocational classes. Their decisions were then examined to determine whether they made sound judgments based on information provided in the PAES Summary Reports. A third purpose of this study was to determine whether teachers

observe students improve in self-concept and work-related behaviors and during the time they spend in the PAES classroom. Teachers were asked to rate each behavior in terms of how often they observed the behavior improve.

Research questions addressed by the Second Study examined three issues related to validity – the usefulness of assessment information for making various educational decisions, the interpretability of the assessment results, and the observed change in student behavior as they spend time in the PAES class. More specifically, research questions examined in the Second Study were: (1) Do the assessment results from the PAES, standardized achievement/aptitude tests and interest/employability inventories differ in degree of usefulness for making various decisions associated with transition planning, placement, and need for support in vocational classes and employment? In addition, does the perceived usefulness of the PAES for each decision increase with level of familiarity with the PAES? (2) Do teachers having various levels of familiarity with the PAES interpret the PAES Summary Report results differently and make different recommendations for students based on assessment results? (3) To what extent are teacher recommendations based on the particular reports they examine? In addition, to what extent do their interpretations of different PAES Summary Reports mediate or enhance the relationship between particular reports and various recommendations associated with each report? (4) Do teacher perceptions of student self-concept and work performance vary based on teacher familiarity with the PAES? (5) Which student behaviors do teachers recognize as the most frequently improved for students who participate in the PA

Results for the second study indicated that teachers prefer the PAES to traditional aptitude/achievement tests and interest/employability inventories for making transition decisions associated with IEP planning, employment, and training. Moreover, the perceived usefulness of the PAES increased with the level of teacher familiarity with the PAES. All familiarity groups made appropriate distinctions of student capability in their evaluations of PAES summary reports suggesting that the PAES assessment results are easy for teachers to interpret and tend to lead to appropriate educational recommendations. Finally, teachers reported they observed students improve on a number of self-concept and work-related behaviors as they participate in the PAES class.

### **The Third Study – Reliability of the PAES Scores**

The third study (Swisher, 1997) examined what happens to the PAES scores when students complete the PAES tasks over a period of time. The purpose of this study was to determine whether students consistently perform the same in relation to each other over a period of twelve to sixteen weeks and whether scores for a group of students remain stable over time. The PAES scores for 77 students were examined for reliability on two dimensions: (a) consistency of scores in the relative ordering of students over time, and (b) stability of scores for a group of students over time.

Research questions for this study were designed to evaluate whether the PAES scores are consistent over time. Specific questions addressed include: (1) Are the PAES scores for amount of assistance, quality of work, work rate, and number of trials consistent in terms of the relative ordering of students over a period of ten weeks? (2) How many weeks do students participate in the PAES before scores for amount of assistance, quality of work, work rate, and number of trials become relatively stable? (3) Do average group scores for assistance, quality, work rate, and number of trials obtained each week over a period of ten consecutive weeks for each context area (e.g., business, home economics, and industrial arts) indicate any particular pattern of change?



Results for the third study indicated that the PAES scores are reasonably consistent over time and that average scores for the group of students had no particular pattern of change over time. Students performed most consistently in relation to each other in terms of work rate,  $\alpha = .88$ , amount of assistance needed to complete the PAES tasks,  $\alpha = .75$ , and quality of work,  $\alpha = .71$ . In other words, if a student had a higher work rate than most students in the beginning, that same student also tended to have a higher work rate than most students over time. These results also suggested that students tended to be less consistent for the number of trials it took for them to complete tasks correctly,  $\alpha = .59$ . It is assumed that score patterns indicate effects of past experience as well as the process of students adjusting to the expectations of the PAES class, the instructor, and other students in the classroom. Reliability Possible sources of inconsistencies in scores over time are potentially due to: (a) tasks increasing in difficulty at varying rates for individuals over time, (b) changes in the assignment of tasks to accommodate individual needs, (c) behavioral issues that effect performance, and (d) student absenteeism.

For more detailed information on the three validity studies and to review the methodology and results for each study:

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