

# Bringing Reliable Measurement to the Classroom

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## Introduction

Since the 2006-2007 school year, Project D2K worked with teachers of local and statewide school districts to examine their ability to create behavioral scales that can be reliably measured by an outside observer. The new focus on progress monitoring in schools has made reliability a necessary skills in the classroom (U.S. Department of Education, 2004). Reliability is important when measuring a student's behavior because a teacher must be able to show that the student's behavior is consistent and further intervention is needed (Crocker & Algina, 2006).

## The Problem with Direct Observation

The best way to monitor student behavioral progress is through direct behavioral observations (Hintze, 2005). However, direct behavioral observations are timely because they require an observer to continually observe a student's behaviors throughout an entire time frame. The consistent monitoring makes it impossible for teachers to use this progress monitoring technique since teachers have other responsibilities (Vannest & Hagan-Burke, 2010; Vannest & Parker, 2010). Current research has shown that teachers can make reliable judgments of student behavior without constant direct observation (Burke, Vannest, Davis, Davis, & Parker, 2009; Vannest, Burke, Parker, Davis, Barrios, & Davis, 2010). However, in order to make these snapshots meaningful, a teacher must first demonstrate reliability.

## Reliability

Reliability has to do with the quality of ratings. Typically, reliability is the "consistency" or "repeatability" of your measures. Poor reliability may compromise the effects yielded and their level of statistical, practical, or clinical significance (Thompson, 2003).

## Procedures

### Pre-Production

- Gained consent from school principal and teacher to use school facility.
- Solicited participants from participating school in grades 3-5 with letter home to parents.
- Sample of students met standards for a diverse and representative group to appeal to a typical classroom from various cultural and ethnic backgrounds.

### Filming

- Students were instructed by Principal Investigator, and participating teacher to exhibit pre-selected undesirable classroom behaviors.
- Graduate students acted in videos as classroom teachers, as well as videographer and sound production expert.

### Post-Production

- Graduate students reviewed the video in order to determine usable clips.
- Clips were selected and cut with computer video software.
- Films are used to teach teachers more realistically and efficiently

## References

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Students demonstrating Inappropriate behaviors. Can you identify the behavior and student?



Students demonstrating Inappropriate behaviors. Can you identify the behavior and student?



Instructing students to demonstrate specific behaviors

