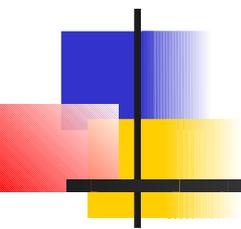# The Analysis of the Classroom Behavior Observation Tool: Triangulating on Disruptive Classroom Behavior in the Evaluation Process

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Program Evaluation, Discipline Problems & School Reform

- Goals for school reform initiatives frequently involve reducing discipline problems (i.e., SSHS; IES).

- Classroom discipline problems affect school learning (Wang, Haertel & Walberg, 1993; Fraser & Fisher, 1982; Moos, 1980).

- Effects of Classroom Environment on Learning (Fraser & Fisher, 1982; Moos, 1980)

- Peer Influence on Behavior and Learning (Dishion, McCord, & Poulin, 1999; Poulin, Dishion & Burraston, 2001)

Student Success Grows!

Discipline Problems Drop!

Measuring Discipline/Behavior Problems

- Individual Behavior Rating Scales (Achenbach & Rescorla, 2001; Reynolds & Kamphaus, 2004).
  - Good psychometric properties
  - Completed by the teacher, parent and/or student.
  - Designed to detect psychopathology and assist with diagnosis.
  - Time consuming (teacher respondent 10-20 minutes per child – 3.5 to 6.5 hours for a class of 25)
  - Expensive ($1.35 a protocol)

- Office Discipline referrals (ODRs); Suspensions, Expulsions.
  - Severe problems only.
  - Differing criteria for referring or suspending
  - Inconsistent data collection.
  - No reliability or validity data.

- Classroom Climate measures.
  - Not a measure of disruptiveness or management problems.

The Classroom Behavior and Asset Scale (CBAS) Family

Rationale: ***Develop a family of instruments that can reliably measure disruptive behavior and assets at the whole class level.***

**Classroom Behavior and Asset Survey- Teacher (CBAST)**

Classroom Behavior and Asset Survey- Student (CBASS)

Classroom Behavior and Asset Observation (CBAO)

Assumptions

- Social behavior and student characteristics impact academic performance.
- Students in groups behave differently than students in isolation.
- Behavior affects other students (contagion effect).
- Social/behavioral assessment of whole classrooms and schools can inform program evaluation and building improvement efforts.
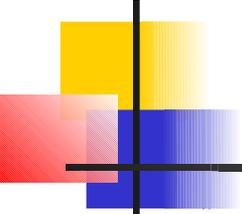
CBAS Development

- Phase One, CBAST Exploration and Development (2001-2002):
  - Open-ended survey of national sample for examples of behavior problems and student assets that impact classroom functioning; pilot test with 19 teachers at local private elementary school
- Phase Two, CBAST Refinement (2003-2006):
  - 333 teachers in 24 local schools; measured four behavioral dimensions: time lost, number of students, frequency, severity; compared reliability and consistency of scales
  - 466 teachers in 22 schools; scale increased from 5 to 8 points; measured only number of students
  - 303 teachers in 22 schools; no change in scale
  - 347 teachers in 21 schools; items on asset and problem scales improved and increased
- Phase Three, CBASS Field Test (2007)
  - 59 teachers and 543 students in 60 classes grades 4-12
- Phase Four, CBAO Field Test (2009)
  - Present study

CBAST Report
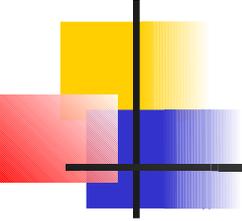
Classroom Behavior and Asset Observation (CBAO)

- Rationale: to triangulate teacher and student ratings with observed behavior in classroom
- Hypothesis: Observations of high-frequency observable behaviors will correlate with teacher ratings of same behaviors.
- Method:
  - Selected 14 observable behaviors from 60 items on CBAS
  - Three categories of behavior based on CBAS factors:
    - Asset (+): engaged, on task, attentive
    - Inattentive (0): off task, disengaged, out of seat
    - Disruptive (-): aggressive, interfering with others
  - Momentary time sampling (1-3 sec) of each student in systematic sweep of classroom using seating chart completed by teacher
- Observers: 3 instructional coaches, 6 school personnel, 1 graduate student; inter-rater reliability r = .71-1.0
- Participants: 69 teachers in 66 classrooms in 30 high schools
- Time frame: 6 weeks during April and May 2009
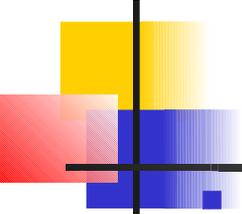
CBAO Results

- Complete data for 798 students in 64 classes
- Mean of 14 students (3-24) and 28 intervals (5-55) per class
- Average student behavior (percent of observed intervals):
    - 80% positive
    - 15% inattentive
    - less than 1% disruptive
    - Differences by class are sizeable and readily apparent
- Easily interpretable but does not match analytical unit of CBAS
- Transformation to number of students in class involved re-entering data, flagging each student for each behavior, summing across classes:
    - Over 99% of students showed positive behavior at least once
    - 70% of students showed inattentive behavior at least once
    - 8% of students showed disruptive behavior at least once.
    - Differences by class are not apparent or interpretable
- Matches the CBAS in units but not in meaning; is not easy to interpret or to use for intervention planning or monitoring.

Conclusions and Future Directions

- **Problems with CBAO:**
  - **CBAO observations captured only 14 of 60 behaviors from CBAS**
  - **Key low frequency behaviors do not occur during class**
  - **Difficult to discriminate similar behaviors in 1-3 seconds**
  - **Lost specificity by using three broad behavior categories**
  - **Observations are often unreliable when single observers are used (Weinrott & Jones, 1984) but expensive for multiple observers**
- **Unknown relationship to CBAS:**
  - **Factors cannot be meaningfully compared when based on fewer examples on CBAO than on CBAS**
  - **What proportion of observations or examples of a category of behavior correlates with rater classifying student into that behavior category on CBAS? Different for different types of behavior?**
- **Where do we go from here?**
  - **Investigate CBAR: direct behavior rating of students by teacher immediately after class session**
  - **Continue validity study of CBAS with repeated use during school year (benchmarking) and comparison to individual rating scales**