

Validity Study of the Coalition Teacher and Student Checklist

What was done to determine if the measures are valid—that they are useful and meaningful?

1. A group of teachers who agreed to complete another widely used similar measure that is already known to be valid, the Behavioral and Emotional Screening System (BESS-see <https://www.pearsonclinical.com/education/products/100001482/basc3-behavioral-and-emotional-screening-system--basc-3-bess.html>) at the same time they completed the Coalition Teacher checklist on students in their classroom.

- **Why?** By gathering data from teachers on both the Coalition measure and a widely used and knowingly valid measure we can determine if the data are similar (or not). If they are similar it means that the Coalition measure is also valid.

2. We conducted regression analyses to compare results of the Coalition checklist with the widely used and valid measure. For each analysis we included student race, gender, and lunch status because these demographics are highly related to student emotional and academic risk. By including this information in analyses, any relationship between the Coalition checklist results and the BESS is above and beyond the impact of demographic characteristics on the BESS results.

- We separately examined both the teacher- and student-report Checklist at each school level (elementary: 3-5, middle: 6-8, and high: 9-12), resulting in 6 total groups of analyses.
- **Why?** Regression analyses let us know how well one thing is related with another. We wanted to know how similar or different Checklist results were from the widely used measure. By including the demographics of students, we can see how much of the association is truly due to the Coalition data independent of other important considerations. Also, we wanted to see if the findings were similar or different across elementary, middle school, and high school age students.

3. We used end of year data about the number of office discipline referrals (ODRs), in-school suspensions (ISS), out of school suspension (OSS), attendance, and MAP scores to determine if data from the Coalition checklists were associated with or could predict these end of year data.

- **Why?** If beginning of the year Coalition checklist data can predict whether a student receives ODRs, ISS, OSS, has poor attendance, or poor MAP performance, then the measure is useful in determining who we might want to give supports to help prevent these disciplinary, attendance, and or academic performance problems.

What did the study find?

1. The findings were **overwhelmingly supportive** of the Coalition teacher and student checklists being valid due to its similarity to the **widely-used and valid measure (BESS)**. We break the findings into elementary, middle school, and high school results.

Teacher Checklist Results

- **Elementary School:**
 - The total score (sum of all items) of the Coalition teacher checklist was highly associated with the BESS, meaning that the total score on the Coalition teacher checklist was similar to the BESS and therefore a valid measure.
 - Because we use individual problem areas (e.g., peer relations) to determine which students may benefit from supports, so we need to determine if they are valid too: All of these scores; a) peer relations and social skills, b) externalizing problems, c) internalizing problems, and d) attention and academic competence were also associated with the BESS, meaning that they each are valid on their own.
- **Middle School:** We conducted the same analyses and found the same findings. The total score (sum of all items) of the Coalition teacher checklist was highly associated with the BESS, and **all**

of the subdomains were significantly associated. Thus, the teacher checklist is also valid with middle school students.

- **High School:** We conducted the same analyses and found the same findings. The total score (sum of all items) of the Coalition teacher checklist was highly associated with the BESS, and all of the subdomains were significantly associated. Thus, the teacher checklist is also valid with high school students.

Student Checklist Results

- **Elementary School:** The total score (sum of all items) of the Coalition student checklist (3-5th grade) was associated with the BESS, meaning that the total score on the Coalition student checklist was similar to the BESS and therefore a valid measure. Further, the individual problem areas (e.g., peer relations) used to determine which students may benefit from supports, were also associated with the BESS, meaning that they each are valid on their own.
 - For the Student Checklist, these areas include: a) peer relations and social skills, b) externalizing problems, c) internalizing problems, and d) attention and academic competence, e) emotion regulation, f) bully behavior, and g) school engagement.
- **Middle School:** We conducted the same analyses and found the same findings. The total score (sum of all items) of the Coalition student checklist was associated with the BESS, and all of the subdomains were significantly associated. Thus, the student checklist is also valid with middle school students.
- **High School:** We conducted the same analyses and found the same findings. The total score (sum of all items) of the Coalition student checklist was associated with the BESS, and all of the subdomains were significantly associated. Thus, the student checklist is also valid with high school students.

- **Nuanced findings:** a) The student checklist was not as strongly associated with the BESS as the teacher checklist. However, this was expected because the BESS is completed by the teacher (not student) and therefore, should be more weakly associated. b) The bully behavior and school engagement subdomain scores, although associated with the overall BESS, were less than the other subdomains. This is because the BESS does not assess for bully behavior or school engagement but is a more broad assessment of social and emotional behavior.

2. The findings were **overwhelmingly supportive** of the Coalition teacher and student checklists being a valid **predictor** of student end of year **ODRs, ISS, OSS, attendance, and MAP scores**.

We break the findings into elementary, middle school, and high school results.

Teacher Checklist Results

- **Elementary School:** The overall score on the teacher checklist was positively associated with ODRs, ISS, and OSS, meaning that higher scores on the Coalition teacher checklist in the fall (cycle 1) were associated with more ODRs, ISS, and OSS by end of year. The overall score was negatively associated with attendance and MAP communication and math scores, meaning that higher scores on the Coalition teacher checklist in the fall were associated with lower attendance and MAP scores. Thus, the overall score in the fall is predictive of negative outcomes at the end of the year.
 - **Subdomains:** All teacher checklist subdomains were associated in the same manner as the overall score. The internalizing problems subdomain was associated with later year outcomes but not as strongly as other subdomains. This is expected because internalizing problems are not as related to the end of year outcomes as other subdomains (e.g., externalizing behavior problems).

- **Middle School:** We conducted the same analyses and found the same findings. The total score (sum of all items) and subdomains of the Coalition teacher checklist was positively associated with ODRs, ISS, OSS, and negatively associated with attendance and MAP scores. Thus, the teacher checklist data in the fall is predictive of negative outcomes at the end of the year for middle school students.
- **High School:** We conducted the same analyses and found the same findings. The total score (sum of all items) and subdomains of the Coalition teacher checklist was positively associated with ODRs, ISS, OSS, and negatively associated with attendance. MAP scores were not available for high school students. Thus, the teacher checklist data in the fall is predictive of negative outcomes at the end of the year for high school students.

Student Checklist Results

- **Elementary School:** The overall score on the student checklist was positively associated with ODRs, ISS, and OSS, meaning that higher scores on the Coalition student checklist in the fall (cycle 1) were associated with more ODRs, ISS, and OSS by end of year. The overall score was negatively associated with attendance and MAP communication and math scores, meaning that higher scores on the Coalition student checklist in the fall were associated with lower attendance and MAP scores. Thus, the overall score in the fall is predictive of negative outcomes at the end of the year.
 - **Subdomains:** The student checklist subdomains of a) peer relations and social skills, b) externalizing problems, c) attention and academic competence, d) emotion regulation, were associated in the same manner as the overall score, meaning that student ratings in the fall are predictive of end of year outcomes. Internalizing problems did not predict OSS. Internalizing problems are not typically related to OSS so this was not unexpected. School engagement scores were not predictive of MAP scores. Student report of school

engagement was expected to predict MAP scores, but it could be that a large number of students tend to score high on this subdomain (less engaged) and therefore it is hard to differentiate lower achievers on this subdomain.

- **Middle School:** We conducted the same analyses and found the same findings. The total score (sum of all items) and most subdomains of the Coalition student checklist was positively associated with ODRs, ISS, OSS, and negatively associated with attendance and MAP scores. Internalizing problems only predicted attendance, which was expected. School engagement was not predictive of MAP scores or OSS and similarly Bully behavior was not associated with MAP scores. Overall though, the student checklist data in the fall is predictive of negative outcomes at the end of the year for middle school students.
- **High School:** We conducted the same analyses and found the same findings. The total score (sum of all items) and most subdomains of the Coalition student checklist were positively associated with ODRs, ISS, OSS, and negatively associated with attendance. MAP scores were not available for high school students. Internalizing problems only predicted attendance, which was expected. School engagement did not predict OSS. Overall though, the student checklist data in the fall is predictive of negative outcomes at the end of the year for high school students.

Summary: Results of the Coalition Checklist, both teacher and student report, are associated with an established socioemotional screener at all grade levels.

Further, these results predict negative student outcomes and can be used to identify students appropriate for preventive and early intervention services.

Table 1. Predictive Validity of EIS Student Report Controlling for Gender, Lunch Status, and Race. Higher EIS scores indicate greater risk.

Elementary School EIS Domains	%Att (n = 4455)	#ODRs (n = 4631)	#OSS (n = 4631)	#ISS (n = 4631)	MAP-Comm (n = 2709)	MAP-Math (n = 2724)	BESS t-score (n = 667)
EIS-Total Risk	-.09*	.20*	.12*	.14*	-.14*	-.24*	.38*
EIS- Peer Relations	-.09*	.20*	.12*	.14*	-.14*	-.14*	.38*
EIS-Ext	-.06*	.28*	.19*	.18*	-.15*	-.15*	.32*
EIS-Int	-.04*	.07*	-.02	.05*	-.10*	-.10*	.25*
EIS-Att/Acad	-.07*	.15*	.09*	.11*	-.18*	-.19*	.33*
EIS-EmoReg	-.08*	.18*	.09*	.11*	-.10*	-.11*	.33*
EIS-Bully	-.04*	.14*	.09*	.12*	-.06*	-.06*	.14*
EIS-Engage	-.07*	.10*	.07*	.08*	.000	-.01	.15*

Middle School EIS Domains	%Att (n = 4332)	#ODRs (n = 4493)	#OSS (n = 4485)	#ISS (n = 4485)	MAP-Comm (n = 3843)	MAP-Math (n = 3794)	BESS t-score (n = 701)
EIS-Total Risk	-.15*	.19*	.12*	.14*	-.08*	-.10*	.33*
EIS-Peer Relations	-.15*	.19*	.12*	.14*	-.08*	-.10*	.33*
EIS-Ext	-.15*	.36*	.23*	.28*	-.13*	-.13*	.34*
EIS-Int	-.10*	.03	-.03	-.02	-.01	-.03	.14*
EIS-Att/Acad	-.15*	.14*	.09*	.10*	-.11*	-.13*	.34*
EIS-EmoReg	-.11*	.16*	.12*	.14*	-.10*	-.11*	.27*
EIS-Bully	-.06*	.17*	.14*	.16*	.001	-.01	.12*
EIS-Engage	-.09*	.06*	.001	.03*	-.003	-.02	.18*

High School EIS Domains	%Att (n = 4455)	#ODRs (n = 4640)	#OSS (n = 4640)	#ISS (n = 4640)	(no MAP data available)	(no MAP data available)	BESS t-score (n = 565)
EIS-Total Risk	-.14*	.12*	.05*	.09*			.24*
EIS-Peer Relations	-.14*	.12*	.05*	.09*			.24*
EIS-Ext	-.14*	.26*	.15*	.21*			.24*
EIS-Int	-.08*	.01	-.02	.02			.12*
EIS-Att/Acad	-.18*	.13*	.04*	.11*			.27*
EIS-EmoReg	-.08*	.13*	.09*	.09*			.24*
EIS-Bully	-.04*	.08*	.03*	.06*			.08
EIS-Engage	-.11*	.06*	.01	.03*			.11*

Note. *statistically significant; %Att=percent attendance; #ODRs=total number of officer referrals; #OSS=total number of out of school suspensions; #ISS=total number of in school suspensions; MAP-Comm= Missouri Assessment Program-Communication Score; MAP-Math= Missouri Assessment Program-Math Score.

Table 2. Predictive Validity of *EIS Teacher Report* Controlling for Gender, Lunch Status, and Race. Higher EIS scores indicate greater risk.

Elementary EIS-Teacher	%Att (n = 9214)	#ODRs (n = 9660)	#OSS (n = 9660)	#ISS (n = 9660)	MAP-Comm (n = 2796)	MAP-Math (n = 2821)	BESS t-score (n = 1674)
EIS-Total Risk	-.11*	.40*	.31*	.29*	-.23*	-.24*	.63*
EIS- Peer Relations	-.09*	.31*	.23*	.22*	-.16*	-.17*	.43*
EIS-Ext	-.07*	.42*	.32*	.32*	-.12*	-.12*	.47*
EIS-Int	-.09*	.10*	.09*	.05*	-.07*	-.10*	.23*
EIS-Att/Acad	-.09*	.19*	.14*	.14*	-.33*	-.34*	.62*

Middle School EIS-Teacher	%Att (n = 4551)	#ODRs (n = 4753)	#OSS (n = 4753)	#ISS (n = 4753)	MAP-Comm (n = 4020)	MAP-Math (n = 3984)	BESS t-score (n = 730)
EIS-Total Risk	-.17*	.47*	.31*	.41*	-.27*	-.26*	.57*
EIS-Peer Relations	-.13*	.32*	.23*	.28*	-.20*	-.18*	.39*
EIS-Ext	-.14*	.51*	.32*	.46*	-.19*	-.17*	.44*
EIS-Int	-.11*	.09*	.09*	.08*	-.16*	-.17*	.22*
EIS-Att/Acad	-.16*	.14*	.17*	.32*	-.33*	-.33*	.63*

High School EIS-Teacher	%Att (n = 5538)	#ODRs (n = 5932)	#OSS (n = 5932)	#ISS (n = 5932)	(no MAP data available)	(no MAP data available)	BESS t-score (n = 681)
EIS-Total Risk	-.23*	.46*	.37*	.41*			.60*
EIS-Peer Relations	-.13*	.27*	.25*	.26*			.42*
EIS-Ext	-.18*	.48*	.42*	.44*			.45*
EIS-Int	-.15*	.11*	.11*	.11*			.29*
EIS-Att/Acad	-.26*	.40*	.23*	.32*			.63*

Note. *statistically significant; %Att=percent attendance; #ODRs=total number of officer referrals; #OSS=total number of out of school suspensions; #ISS=total number of in school suspensions; MAP-Comm= Missouri Assessment Program-Communication Score; MAP-Math= Missouri Assessment Program-Math Score.