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DEVELOPMENT OF THE ITEM TEST POOL FOR A SCREENING INSTRUMENT
OF EMOTIONAL AND BEHAVIORAL DISORDERS OF
ELEMENTARY SCHOOL STUDENTS

by

Laura E. Conley

A thesis prospectus submitted to the faculty of

Brigham Young University

In partial fulfillment of the requirements for the degree of

Educational Specialist

Department of Counseling Psychology and Special Education

Brigham Young University

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BRIGHAM YOUNG UNIVERSITY

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As chair of the candidate's graduate committee, I have read the thesis of Laura Conley in its final form and have found that (1) its format, citations, and bibliographical style are consistent and acceptable and fulfill university and department style requirements; (2) its illustrative materials including figures, tables, and charts are in place; and (3) the final manuscript is satisfactory to the graduate committee and is ready for submission to the university library.

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ABSTRACT

DEVELOPMENT OF THE TEST ITEM POOL FOR A SCREENING INSTRUMENT OF EMOTIONAL AND BEHAVIORAL DISORDERS OF ELEMENTARY SCHOOL STUDENTS

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The functioning of children with emotional and behavioral disorders (EBD) is a concern for parents and educators. Screening focuses efforts to identify and prevent/remediate EBD for students most at risk. Current screening instruments fail to meet three factors that may be related to successful early identification. The three factors are universality (rates all students), brevity, and identification of internalizing and externalizing symptoms. This thesis began the construction of a screener with all three factors. The thesis determined a conceptual basis for the instrument and created an item pool. The conceptualization was based on a literature review. The item pool was obtained by looking at current assessments and screeners, research studies, and teacher focus groups and email surveys. The item pool should be test piloted and compared against reliable and valid assessments to further reduce the number of items.

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INTRODUCTION

The most recent update in special education law, the Individuals with Disabilities Education Improvement Act 2004 (IDEIA), continues to require that schools provide special education services to students whose emotional disturbance interferes with their ability to function at school as stipulated in the Individuals with Disabilities Education Act (IDEA) 1997 (U.S. Department of Education, 1998). Emotional disturbance is a broad category that encompasses students who display behavior problems. Behavioral and emotional problems are frequently classified as externalizing and internalizing behaviors. Behaviors that are disinhibited, antisocial, or aggressive in nature are called externalizing behaviors (Kovacs & Devlin, 1998). Internalizing problems are normally associated with depression, anxiety, social withdrawal, and somatic problems (Merrell & Walters, 1998).

It is expected that students who are identified with emotional and behavioral problems as defined under IDEIA will be placed in special education. Once students enter special education, they typically need costly interventions and/or smaller than the average classroom sizes. Emotional and behavioral disorders also have personal costs to students, as these students graduate from high school at lower rates than other students with disabilities (U.S. Department of Education, 2003) and prompt further difficulties for these individuals and families, such as extra financial burdens and the ability of parents to work regularly (Bethell, Read, & Blumberg, 2005). It would reduce costs for schools, drop-out rates for students, and burdens on parents if fewer students needed intensive special education services.

Additionally, preventive initiatives may be key in remediating EBD problems that interfere with students' school functioning. Interventions have helped students with internalizing behaviors (e.g., Bernstein, Layne, Egan, & Tennison, 2005) and externalizing behaviors (e.g.,

Lambert, Cartledge, Heward, & Lo, 2006) function more successfully. Prevention efforts are more likely to occur when a student is identified as at risk. In a school setting, the person who may be best for identifying these students is the classroom teacher.

Since teachers typically spend more time with their students than any other adult at the school, they are ideal candidates for identifying students at risk. Severson and Walker (2002) assert that teachers are an “underutilized resource with the potential to assist appropriately in the evaluation and referral of at-risk students for specialized services” (p. 36). Teacher knowledge is tapped by screening instruments, such as the Systematic Screening for Behavior Disorders (SSBD; Walker & Severson, 1992). The SSBD educates teachers about behavioral descriptions that indicate when a child is at risk for developing EBD. The SSBD and similar instruments are an ideal way to help teachers identify students who may need extra support and to prevent and minimize future difficulties for children.

There are other screening instruments for emotional and behavioral disorders that are currently available to help teachers identify students. Severson, Walker, Hope-Doolittle, Kratochwill, and Gresham (2007) used a study funded by the Office of Special Education Programs to identify screening measures that have a sound research base. The authors note that the list may not be exhaustive. Of the instruments listed, it is important to note that none of the instruments contain all of three important characteristics: serves as a universal screeners (rates all children), identifies children with either emotional or behavioral problems, and is brief enough that teachers consider it acceptable and feasible (Glovers & Albers, 2007).

The purpose of this thesis is the research and development of a screening instrument for emotional and behavioral disorders. This thesis will develop the item test pool for a universal

screener of emotional and behavioral disorders. The screener will be used with elementary school students. The proposed instrument will be brief and universal.

During the course of this project, several important research challenges will have to be addressed to create a comprehensive item pool, including

1. How should different aspects of emotional and behavioral disorders be conceptualized?
2. How should “at-riskness” be conceptualized?
3. What types of language would be most familiar to teachers?

The completion of this study will be essential for the further development of a screening instrument. It will allow future researchers to use the selected items to find which ones best identify students who are at risk for developing emotional and behavioral disorders.

LITERATURE REVIEW

Research on children with emotional and behavioral disorders (EBD) has many facets that apply to screening. The following sections review effects of EBD, definitions of EBD, models used to describe EBD, and characteristics of screening instruments (including reliability and validity and needs of users).

Effects of Emotional and Behavioral Disorders

Emotional and behavioral disorders is the name given for a wide variety of problems (Kauffman, 2005). While EBD is defined in detail later, a brief definition of EBD would include symptoms related mental health disorders such as anxiety, depression, oppositional defiant disorder, and possibly other disorders (American Psychiatric Association, 2000; U.S. Department of Education, 1998). The behaviors associated with EBD may affect students' schooling. For instance, in the 2000–2001 school year only 28.9% of students classified as emotionally disturbed graduated with a standard high school diploma, a smaller percentage than students from any other disability category; and 65.1% of students with emotional disturbance dropped-out, a larger percentage than for students in any other disability category (students aged 14 and older; U.S. Department of Education, 2003). A meta-analysis of the academic achievement of students with emotional and behavioral disorders compared to their non-disabled peers resulted in a moderate to large effect size ($ES = -.69$; Reid, Gonzalez, Nordness, Trout, & Epstein, 2004), indicating poorer academic performance. In another study, emotionally disturbed high school students scored below two standard deviations from the mean in academic competence, below one standard deviation from the mean in school adjustment and social skills (Lane, Carter, Pierson, & Glaeser, 2006).

Emotional and behavioral disorders can also affect children's parents. In one large study, children ages 0 to 17 who were in or in need of treatment or counseling for emotional and behavioral problems were more likely than other children with special health care needs to have health conditions that affects their life daily, insufficient health insurance, unmet health needs, missed 11 or more days of school, no personal doctor or nurse, and their parents pay \$1,000 or more in out-of-pocket medical expenses in a year. The families of these children were more likely to have financial problems related to the child's health concerns, to have to work fewer or no hours in order to care for the child, and to spend at least 11 hours in the week in providing or coordinating the child's health care (Bethell, Read, & Blumberg, 2005). Another study indicated that parents of children with externalizing behaviors were found to have more negative feelings about parenting and to be more difficult to parent than a control group (Donnenberg & Baker, 1993).

With the majority of students with EBD struggling academically and parents already under financial strain, educators may wonder what steps they can take to help these students. Prevention efforts for students who display EBD-like symptoms require identifying the exact nature of the difficulty. Identifying the problem may be considered synonymous with defining EBD. Defining EBD is complicated by the variety of disorders that fall under the EBD umbrella and in respect to the differences in how these disorders are identified and assessed.

Definitions of Emotional and Behavioral Disorders

Estimates of the prevalence of EBD have ranged from 3.5% to 27.9% (e.g., King, Iacono, & McGue, 2004; Levitt et al., 2007; Merrell & Walters, 1998; Walker, Cheney, Stage, Blum, & Horner, 2005; Walker & Severson, 1992). The federal government and professionals in the field of EBD have contributed definitions of EBD, which affect our understanding and treatment of

these disorders. The difficulty in having a universal definition of EBD is illustrated by these differences in prevalence rates and by the variety of agencies and individuals contributing to the definitions of EBD. Difficulties with defining EBD also stem from the wide variety of disorders encompassed by the term EBD and how we study them. For instance, difference in prevalence ratings should be expected according to the specific population sampled as well as the specific disorder being studied. Kovac and Devlin (1998) also pointed out that prevalence rates “are known to vary as a function of methodologic factors” (p. 48) and these factors include who is giving the information used to diagnose (e.g., parent, teacher, or child), how the information is used, the age of child, how the child is assessed, the criteria of the assessment for diagnosis, and the training of those doing the assessments.

In the schools, the definition of EBD is dictated by federal law, namely, the Individuals with Disabilities Education Improvement Act 2004; this definition is the same listed in the Individuals with Disabilities Education Act of 1997 (IDEA 97; U.S. Department of Education, 1998). In terms of IDEIA 2004, the definition of EBD is not considered a diagnosis, but an educational classification that qualifies students for special education services. The U.S. Department of Education (1998) stipulates that a student can qualify for services under the emotional disturbance label if the student’s condition interferes with the student’s performance. Student performance is understood to include concepts such as ability to learn, satisfactory relationships with teachers and peers, types of behaviors exhibited, general mood, or unusual psychosomatic symptoms or fears. While the condition must occur over a long time, the duration of the time period is not specified.

Experts in the field of EBD note the need for clarification of the terms in the federal definition. Kauffman (2005) specifies characteristics of the definition that would make it difficult

to consistently apply the definition to the identification of students, including the ambiguity of phrases regarding duration, severity, and the definition of social maladjustment. Cullinan (2004) records other experts' similar criticisms but defends the federal definition by stating that its identification criteria match the symptoms identified by research. Even if research supports the definition, ambiguities in its language may result in students needs not being met. Looking to other sources for definitions may help clarify when a child should be identified with EBD.

Clarifying the definitional confusion is potentially facilitated by examining how clinicians classify and diagnose emotional and behavioral disorders. Cullinan (2004) identified two main classification systems: disease and dimensional classification. He further describes the disease system of classification as “a collection of maladaptive and distressing behaviors, emotions, and thoughts that is qualitatively different from normality” (p. 33). The dimensional system of classification assumes that all people have problems with thoughts, emotions, or behaviors to some degree, but a disorder is present when these problems reach a severe or intrusively chronic level. Both models can be useful in describing and understanding emotional and behavioral disorders. Each will be described below.

Models Used to Describe Emotional and Behavioral Disorders

Clinical psychologists and psychiatrists typically use diagnoses from the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV-TR; American Psychiatric Association, 2000), which is more typical of the disease model of classification. Emotional and behavioral disorders fall under the DSM-IV-TR diagnoses of conduct disorder, oppositional defiant disorder, attention deficit-hyperactivity disorder, anxiety, and depression. Diagnoses from the DSM are of limited value in the school setting for two reasons. First, schools do not use diagnoses to determine special education services. Second, a student's difficulties must interfere with school functioning

in order for the student to qualify for services. In the end, school functioning is evaluated by a team of professionals at the school and not a clinician.

In the schools, school psychologists and other personnel tend to use instruments that are dimensional in nature to assess behavioral and social functioning. There are several important reasons for this. First, school psychologists are trained to provide assessments to inform interventions and individualized education plan (IEP) teams. Next, children may demonstrate behaviors that although problematic, don't necessarily interfere with their school functioning. Special education qualification is specifically targeted at difficulties in school functioning, hence the dimensional model is needed to determine the degree of impairment in schools which may be caused by a disorder.

In accordance with the dimensional model, those in the education field have grouped these disorders according to general patterns of outwardly or inwardly directed behaviors. Hence, behaviors that are disinhibited, antisocial, or aggressive in nature are called externalizing behaviors (Kovacs & Devlin, 1998), these behaviors are symptoms of an externalizing behavior disorder. Similarly, internalizing disorders are those that have symptoms directed inwardly, and include disorders and symptoms such as depression, anxiety, social withdrawal, and somatic problems (Merrell & Walters, 1998). In helping children with the above symptoms, it is more beneficial to identify children who are at risk for developing EBD, as well as those who are already demonstrating EBD tendencies, as it allows them to receive preventive services. It has been noted that early intervention is usually more effective than waiting for a child's difficulties to turn into a crisis (Kauffman, 1999).

Severson, Walker, Hope-Doolittle, Kratochwill, and Gresham (2007, p. 3) defined students at risk for externalizing disorders as those

(a) who are on a trajectory to later destructive outcomes due to risk factor exposure in the first five years of life and (b) who present moderate to severe behavioral challenges to their teachers, peers, and sometimes primary caregivers (Loeber & Farrington, 2001; Reid, Patterson, & Snyder, 2002).

A matching definition for being at risk for internalizing disorders may include those who are on trajectory for internalizing disorders due to risk factors and those who are already presenting moderate to severe internalizing symptoms. Further conceptualization of risk status for emotional and behavioral disorders will be part of the challenge and process of this study. Prevention with at-risk students requires identifying students in need. The authors hypothesize that early identification of at-risk students can be accomplished by using a screening instrument. Screening students for emotional and behavioral problems may benefit students by allowing early preventative efforts to be put in place, thus teaching students how to manage and improve their own behaviors and perhaps improving students' long-term outcomes.

Screening Methods

Purpose

The main purpose of screening instruments is to identify at-risk students in order to provide them with additional support. This support may include remediating minor problems or preventing future problems from developing. Preventive interventions have been used successfully for both internalizing and externalizing behaviors (see Bernstein, Layne, Egan, & Tennison, 2005; Lambert, Cartledge, Heward, & Lo, 2006; Scott, 2001). Interventions are most effective when they target students who have some indications of needing extra support as suggested in a meta-analysis of depression studies in children and adolescents (Horowitz & Garber, 2006). The key to providing beneficial services to students is to accurately identify

students most at risk for developing EBD and those with EBD and be proactive in supporting these students.

A proactive approach differs from the traditional approach in which teachers refer only children with severe behavior problems for specialized help, sometimes called the wait-to-fail model (Severson, Walker, Hope-Doolittle, Kratochwill, & Gresham, 2007). A proactive approach means identifying students at risk for EBD early, before the behavior or emotional problem becomes disruptive to the student and teacher. Screening measures are the instruments used in a proactive approach to identify at-risk students. After screening, further assessment is used to evaluate the student's needs, which is followed by providing extra support. Accurate identification of at-risk students is an essential step in providing services and remediating EBD problems.

While screening instruments are designed to be as accurate as possible in their identifications, it has been recognized that completely eliminating false negatives and false positives is impossible (Kauffman, 1999). There are several psychometric characteristics screening instruments must have to identify accurately. In addition, there are characteristics that screening instruments need to ensure that users' needs are met. The following sections detail desirable qualities of screening instruments that are likely to facilitate proactive screening.

Specifically, a screening instrument should have adequate psychometric characteristics (reliability and validity) and meet the needs of its users. Reliability ensures that the instrument takes similar readings when there has been no change in the individual or situation. Validity indicates that the screener measures what it purports to measure. When a screening instrument fulfills the needs of its users, it is more likely to be found helpful. The following sections discuss issues related to validity and user needs.

Reliability and Validity

In the case of EBD, the validity of a screening instrument may depend on how much the individual knows about the child. This creates problems for developing a school-based screening instrument when one considers some of the major risk factors for EBD. For instance, Berk (2006) cited evidence that “parental harshness predicts emotional and behavior problems in children of diverse temperaments (O'Connor et al., 1998” (p. 481). Specific risk factors for externalizing behaviors have been noted. Patterson et al. (1992) are cited for the risk factors leading to antisocial behavior patterns; the risk factors they identified included “harsh and punitive discipline, weak parental monitoring and supervision, lack of parent involvement in the child’s daily life, failure to use positive family management techniques, and inadequate problem-solving/crisis-management skills” (Walker, Stiller, Severson, Feil, & Golly, 1998, pp. 259–260).

Students with internalizing problems are similar to those with externalizing problems in that various risk factors may play a role in the development of symptoms. For example, one study found that negative life events, temperament, and parenting were predictors of a negative cognitive style that is believed to lead to depression; in this study, negative peer events (e.g., harassment) directly predicted the more negative cognitive style (Mezulis, Hyde, & Abramson, 2006). Other researchers cited a number of risk factors associated with anxiety symptoms including poor emotional regulations, physiological reactivity, parental attachment, and developmental incompetence (Bosquet & Egeland, 2006). Teachers may have little awareness of these home-based risk factors.

The school context leads screening instrument designers to seek out risk factors that are observable at school, which can be appropriately used for identifying students within the school context. Walker and Severson (2002 as cited in Walker, Ramsey, & Gresham, 2004) divide risk

factors for antisocial behaviors into several categories: child, family, school, and community/cultural factors. Examples of risk factors include deviant peers, lack of school bonding, and failure in academics (Weber-Stratton & Taylor, 2001), which factors can be noted by teachers at school. While multiple components affect a child's risk level, a valid screening instrument completed by teachers would only ask questions about risk factors related to events and observations at school. Such a restriction is needed as many teachers only observe their students within the school context. Ratings for other contexts could be easily biased by the perceptions of those telling the teachers and the teachers' perceptions of those reporting the behaviors. Using concrete and observable terms in the school context may enhance reliability as teachers report on what they have seen and not their general impression.

Once the reliability and validity of a screening instrument have been verified, one should ask if the screening instrument fits the needs and purposes of the user. The following section suggests some of the needs of users that should be considered when selecting a screening instrument.

Needs of Users

Kauffman, Brigham, and Mock (2004) summarized reasons that schools do not always identify children with EBD: "(1) personal philosophy [e.g. avoid labeling], (2) definitional imprecision, and (3) pragmatic concerns" (p. 18). The aforementioned reasons describe concerns of educators and represent some of the needs educators have for a screening instrument. To meet these needs, a good screener will be able to refer a student for further assessment (a type of system support) which will provide services that directly focus on the needs of the student and thus avoid labeling the child. A good screener will inform teachers of what behaviors to look for,

thus improving definitional precision. Finally, a good screener will not be overly burdensome to teachers in terms of time and effort.

Some researchers have experienced that teachers prefer screening instruments that are generic, cost efficient, solve a high priority problem, do not take too much effort, and apply to the mission of schooling (Severson et al., 2007). This preference makes sense as identifying students puts extra pressure on teachers' demanding schedules and responsibilities. The importance of time efficiency was demonstrated by the development of a screening instrument used in the Primary Mental Health Project. The Primary Mental Health Project, discussed in Hightower et al. (1986), works to identify and intervene with young children's school adjustment problems by using "socioemotional screening, assessment, intervention, consultation, and program evaluation...." (p. 394). The screening instrument used by this project required teachers to complete 95 items, and the time it took to complete was identified as a concern of teachers. Teacher concern about time led program personnel to modify and shorten the original two instruments to a single screener with 36 items (Hightower et al., 1986).

Another recommendation is that screening instruments should have characteristics that will make them more usable. For instance, Glover and Albers (2007) summarized their own and others thoughts on usability: the costs (e.g., protocols, scoring, class time) should weigh more heavily than the benefits; administration should be feasible within the school; stakeholders should find it acceptable; an infrastructure to support the management of data should be in place; accommodations should be available for the identified students; and assessments should be used to make intervention decisions. Interested readers can see Glover and Albers (2007) for a list of sample questions to consider before selecting a screening instrument. Levitt et al. (2007) support the notion that instruments need to be feasible in the amount of time they require to complete, the

ease of scoring and interpretation, and the acceptability of the information. In addition, they suggest that any screening instrument must be socially valid as well as effective for it to be of use.

Strengths and Weaknesses

The previous section discussed three important characteristics of screening instruments: reliability, validity, and meeting user needs. These characteristics can be fulfilled in different ways. Several classifications have been used to conceptualize the different types of screening instruments. For instance, some authors have identified three general methods of screening for students at-risk for EBDs, which include multiple-gating procedures, Likert-type ratings of all students, and teacher nomination followed by a Likert-type rating (Severson, Walker, Hope-Doolittle, Kratochwill, & Gresham, 2007). Other authors have classified universal screening instruments (instruments that screen all children) into two types: those that identify problems currently experienced by students and those that can predict future problems (Glover & Albers, 2007). Both modes of classification may be useful depending on the goals of those using the screening instruments. The following section discusses the strengths and weaknesses of the different types of screening instruments, which will be followed by a description of the current screening instruments available.

Screening instruments falling into each category of the “multiple-gates, rate all students, and nominate then rate” classification system have strengths. “Multiple-gate” and “rate all students” can be universal (e.g., Systematic Screening for Behavior Disorders, Walker & Severson, 1992; Student Risk Screening Scale, Drummond, 1993; respectively). Universal screening is important in preventive efforts as students who do not have severe behavior problems will be less likely to be overlooked. Since a multiple-gate system does not require a

rating of each child, overall screening time is decreased. Instruments that “rate all students” are useful because they ensure that each student has been individually considered, thus reducing the chance of an at-risk student not being identified. A main strength of the “nominate then rate” methods is that it requires little time to screen and helps solve a pressing concern of the teacher.

Each category of these instruments discussed above also has some limitations. Since a multiple-gate system does not require the teacher to rate each child, there is the possibility of a child being overlooked due to forgetfulness or teacher bias. Screeners that require teachers to rate each student may prevent a child from being overlooked, but may also require more time to complete. If a “rate all students” instrument is short, it also provides a smaller amount of information. The main drawback of “nominate then rate” is that children who are at-risk, but not seriously troubled or troublemakers, may not be identified for preventive services.

Those who develop screening instruments need to choose the important strengths and least problematic limitations of formatting and content for their purposes. For preventive purposes, a universal screening instrument should identify at-risk students who do not have serious impairments in their school functioning. Rating all students would ensure no child is missed. For this to be acceptable to teachers, the screening instrument must be short. Short instruments come with the limitation of providing less information. This limitation can be resolved by following the screening with additional assessments, such as behavioral rating scales. Screening instruments focused on prevention should measure current school behaviors that are EBD risk factors (e.g., peer rejection, school failure, normative beliefs about aggression [Walker & Severson, 2002]), since universal screening is easiest to complete at schools and because teachers may not be aware of home-based risk factors.

Before continuing, it is important to remember the differences between assessment and screening. The purpose of screening is to refer for further assessment. Assessment should be used to specifically design interventions for the child. For instance, Achenbach's Teacher Report Form (Achenbach & Rescorla, 2001) is primarily an assessment instrument. The teacher completes a variety of information (e.g. if the teacher knows the student well, concerns about the student, comparisons to other students), which includes filling out short answers and rating the student on 113 items about the behavior, social, and emotional functioning of the child. Sometimes parental questionnaires are used as another assessment resource. Screening instruments are usually much shorter, such as the 7-item *Student Risk Screening Scale* (SSRS; Drummond, 1993), and typically completed by the teacher. The results of screening instruments do not often specify the exact needs of the student or indicate the most appropriate treatment. As construction and purposes of screening instruments vary, some screening instruments may have assessment components.

Review

To determine the need for the development of a new EBD screening instrument, currently available instruments should be reviewed. The reviewed screening instruments include those that are completed within schools and are appropriate to use with elementary school-aged students. The instruments are described in Appendix G) according to six criteria important to school screening: (a) universal screening of all students; (b) amount of time required to complete; (c) ease of use (format); (d) cost; (e) indications for further assessment; and (f) ability to identify both internalizing and externalizing or other behavior problems. Additionally, eight screening instruments and one other procedure are described in Appendix G.

All but two of the reviewed instruments were identified by Severson et al. (2007). While not exhaustive, the instruments were considered to have a research base that made them appropriate for use as a screener, this decision being based on various characteristics, including (a) targeted individuals and informants (e.g., teacher, parent); (b) validated use and basic formatting (e.g., response scaling, such as dichotomous or Likert scales); (c) normalization sample and psychometric characteristics (e.g., reliability and validity); (d) factors or groupings within the screener's measures (e.g., scales that specify competence in specific content areas) (e) findings regarding the measure's effectiveness in identifying students at-risk of having a behavior disorder; (f) barriers to the instrument's effectiveness; (g) evidence of effectiveness when used in conjunction with other instruments; and (h) record of use in assessment(s) and screening of special populations (Severson et al., 2007, p. 196).

It should be noted that the SSBD has three stages: the first is a screening stage, while the second two are assessment stages. The SAED was not listed by Severson et al. but was included because it makes direct use the federal definition in screening. In a review, Owens (2001) reports adequate inter-item and test-retest reliability and as well as evidence for content validity. The TRS-C was included because it represents an effort at creating a brief screener, although the authors indicate that it is not yet in a usable form (Kamphaus et al., 2007). The procedure for screening, response to intervention (RTI), is more thoroughly discussed next.

Response to Intervention

Response to intervention is a recent trend in education. It involves systematically increasing research-based interventions to see if the child will respond in the desired direction (Severson et al., 2007). Using RTI has been suggested for identifying students with emotional

disturbance (Gresham, 2005). Gresham described RTI as “an inadequate change in target behaviors as a function of intervention. The goal of all interventions is to produce a discrepancy between baseline and post-intervention levels of performance” (p. 331). In other words, try an intervention and see if a change in the target behavior occurs. One down side is that RTI may be difficult to use for identifying emotional disturbance because it is unclear when a student’s response has been adequate to signify improvement and therefore a lack of emotional disturbance (Gresham, 2005).

Response to intervention is more difficult to compare to other suggested screeners because most of the characteristics of interest (i.e., universal, time, format, cost) depend on the individual student needs. The focus on individual needs may also make this method more effective and efficient. The indication for further assessment is immediately apparent according to whether or not the student responded adequately to the intervention. A distinction of internalizing and externalizing symptoms is not necessary for this method as RTI focuses on interventions for specific problem behaviors; however this may run the risk of internalizing behaviors being overlooked.

Response to intervention may still require some form of previous screening, especially if it is to catch students before problems become serious. VanDerHeyden, Witt, and Gilbertson (2007) studied a system of RTI used at the school-wide level for responding to students’ difficulties in reading and math. Even for academic subjects, they universally screened students’ performance twice a year. Similarly, schools may need to use a universal screener to identify those students at risk for emotional and behavioral disorders.

Summary and Research Proposal

The label emotional and behavioral disorders describe a wide variety of problems (Kauffman, 2005) which have serious consequences for students (for example see U.S. Department of Education, 2003). Screening students in order to determine who to provide with prevention services is complicated by the fact that different definitions of EBD exist. Criteria for evaluating screening instruments include the universality of the screener, time required to complete, the ease of use (format), cost, indications for further assessment, and ability to identify internalizing, externalizing, or other behavioral symptoms.

Current screening instruments have varied strengths and weaknesses in terms of the evaluation criteria. For instance, the SSBD and SRSS are considered universal screeners which provide the best possibility of identifying at-risk students, because all students are considered for identification. The SSBD is limited in that it does not ask for a rating of each student. Use of the SRSS in screening for EBD is limited by its focus on conduct disorder, thus excluding other types of externalizing and internalizing problem behaviors, however, the SRSS requires little time to complete and an individual rating of each student. None of the other instruments listed provide a universal rating of all students.

All of the screening instruments, besides the SSBD and SRSS, require at least five minutes to administer to an individual student. Screening a class of 20 students, rating each student so as not to miss a student at-risk, would require at least an hour and forty minutes. Most of the screening instruments listed are of too cumbersome a length to be used by the classroom teacher. Most of the instruments indicate when further assessment is needed or include the screening as part of a comprehensive assessment. Many instruments also identify problem

behaviors on externalizing and internalizing scales. These instruments include the SSBD, R-PBC, CRS-R, and the SAED.

Based on this review of current screening instruments, there appears to be a need for a screening instrument that requires little time, like the SSBD and SRSS, measures risk status for both internalizing and externalizing behaviors, unlike the SRSS, and uses a universal rating that accounts for each student, unlike the SSBD. The purpose of this research is to identify and/or develop items for a screening instrument that are most efficient in identifying elementary school students who are at-risk for emotional and behavioral disorders in response to the need found in the screening literature. The items for this screening instrument will be used to identify students experiencing both internalizing and/or externalizing behavior problems.

METHODS

Research Design

This research project is focused on research and development of a new screening instrument for emotional and behavioral disorders in elementary students. The end product is a list of items to be used for pilot testing of the screener. The methods for creating the item pool for the screener was derived from several sources. Test manuals (description of how the assessment was created) and a description from a research article were accessed for guidance, including the Achenbach System of Empirically Based Assessment (Achenbach & Rescorla, 2001), Systematic Screening for Behavior Disorders (Walker & Severson, 1992), the Home and Community Social Behavior Scales (Merrell & Caldarella, 2002), the Internalizing Symptoms Scale for Children (Merrell & Walters, 1998), and the Teacher-Child Rating Scale (Hightower et al., 1986). In addition to these sources, notes from an undergraduate course psychometrics (Lane, 2002), an article (Smith, McCarthy, & Anderson, 2000) and books on test construction were consulted, including *Scaling Procedures: Issues and Applications* (Netemeyer, Bearden, & Sharma, 2003) and *Assessment Procedures for Counselors and Helping Professionals* (Drummond & Jones, 2006). The researchers used qualitative methods to reach this goal. There were three main research methods: literature review, focus groups, and surveys. Data from focus groups and surveys were analyzed using a method based off of classical content analysis. Since this project is qualitative in nature, it is important to recognize the background of the researcher. The researcher is a young adult female of a primarily Caucasian, middle class background. She was assisted by an undergraduate researcher also from a Caucasian, middle class background.

Participants

Three school districts in Utah were selected and agreed to allow focus groups. The school districts were selected based on their varied locations. One school district had urban/suburban populations, and two school districts had rural populations. Unfortunately, efforts at conducting focus groups were hampered by lack of participation. Two focus groups were held with a total of three participants at both focus groups (two males, one female; one kindergarten, one fifth, and one sixth grade teacher). In order to gather more input from teachers, an email survey was created, and elementary teachers at all three school districts were invited to participate. The email survey resulted in 132 responses. The percent of teachers responding by grade level is listed in Table 1. A list of the focus group and email survey questions is listed in Appendix A.

Procedures

The procedures for this project consist of two sections: Developing and defining the constructs and creating a test item pool. A description of each section follows.

Develop and Define the Constructs

Electronic database searches were performed to find information on a priori constructs (i.e., attention problems, aggression, internalizing problems, noncompliance, disruption, academic problems, peer relationship problems, and school adjustment problems) associated with emotional and behavioral disorders. These databases included ProQuest, PsycINFO, Academic Search Premier, ERIC, and MedLine. The researcher kept alert for other possible categories for emotional and behavioral problems while conducting the literature review. Results from this search are presented in a literature review of each a priori construct to determine if the construct should be used as a coding category for the results of the focus groups and

Table 1

Grade Level of Teachers Responding by Percentage

Teacher's grade level	Percentage of respondents
Kindergarten	6.8
First	12.1
Second	14.4
Third	14.4
Fourth	13.6
Fifth	12.1
Sixth	12.1
Special Education	6.8
Special (art, music, physical education)	3.0
Other	4.6

Note. $N = 132$.

surveys (a description of coding categories is in a later section). These results were also used to develop questions for the focus group and email survey.

Develop Test Item Pool

Three steps were taken to search out and develop the test item pool. Step one was a search for items from current items from assessments and screeners in the area of emotional and behavioral disorders. Step two consisted of focus groups and surveys with elementary school teachers. Step three consisted of condensing and reducing the number of items.

Step one: Search for items from current assessments and screeners. A literature search was made for current assessments and screeners that include constructs appropriate for emotional and behavior disorders that were developed in the section Developing and Defining the Construct. Studies that apply to each of the constructs related to EBD were reviewed. Relevant assessments were searched for in the Mental Measurements Yearbook database and in the Educational Testing Service database. Searches terms included emotional disorder, emotional disturbance, behavior disorder, behavior problem, social skills, behavior assessment, behavioral assessment, internalizing, externalizing, anxiety, depression, withdrawal, aggression, antisocial, peer, academic, school, conduct, antisocial, attention, peer, and academic problems.

Results from these searches were evaluated on the following criteria

1. The assessment was designed for students in the 5–12 year age range.
2. The assessment was completed by a teacher.
3. The assessment used a Likert-type rating system
4. Reviews of the assessment indicated adequate reliability and validity. Adequate reliability was determined by most of the instrument's subscales having a

reliability coefficient of at least .80. Validity was determined by reviewing peer reviewers' comments or reading through the actual instrument/article to check for its applicability to this research.

5. The assessment's publishing date or norms were from 1990 or later.

Assessments, screeners, and studies were accessed to discriminate and select items for the testing pool. The test items were separated by the most applicable construct.

Step two: Focus groups and email surveys with elementary school teachers. A focus group and email survey were conducted with elementary school teachers to identify the language and behaviors that they see as most concerning in regard to emotional and behavioral disorders. The audio-recorded focus group was planned for groups of 5–12 teachers (more information on actual numbers in the results section). The focus groups lasted for approximately an hour and participating teachers were compensated with a \$15 gift certificate to a local restaurant. Due to small focus group sizes, email surveys were used to collect data from the same school districts. The questions used in both focus groups and email surveys were created to reflect the a priori constructs (e.g., attention, aggression, internalizing behaviors), but focused on how these behaviors look in the classroom (e.g., “Some students tend to have internalizing behaviors as they appear to be anxious, sad, withdrawn, depressed, or lonely. How do you see these behaviors demonstrated in your classroom?”) The two researchers transcribed the audio recording of the focus group. Transcriptions were compared against each other and the original recordings to ensure accuracy. This was done by reading each transcription and looking for discrepancies between the two. When a discrepancy was found, the researcher listened to the original recording again to clarify what was actually said. Each researcher coded statements by teachers from the focus groups and email surveys into one of the a priori categories, adding additional categories as

necessary. Coding responses in this manner is based off of classical content analysis, which uses previously determined codes for analyzing data (Ryan & Bernard, 2000). Questions used in the focus group and email survey are in Appendix A.

Survey and focus group responses were coded independently by the graduate student and the undergraduate assistant according to the constructs (e.g., attention, aggression) identified in the literature review. Additional categories were added as part of the coding process to ensure that additional domains for emotional and behavioral disorders did not escape detection. Additional categories created included: “hyperactivity,” “disrespect,” and “other.” Since there was some degree of overlap between the categories (for example, withdrawal can be considered an internalizing problem as well as a problem with peer relations) certain “decision rules” were used to categorize responses that had overlap between categories. The following decisions and definitions were used to categorize the responses into more defined constructs (see Table 2). For a more thorough explanation of the rationales for the decision rules, the reader can reference Development and Definition of Constructs: Literature Review in the Results chapter.

Coding resulted in a list of possible items taken from the transcription and surveys. For example, if a teacher responded “Student appears withdrawn,” the response was listed as the possible test item, “appears withdrawn.” A single response could be listed under multiple constructs if it referred to multiple constructs. Each response coded by the two researchers was read and compared to how the other researcher categorized the response. Discrepancies were resolved using the decision rules.

Step three: Condense and reduce the number of items. Concepts from previous studies, items from other tests, and the coding from the focus group and email survey were listed into a final master list of test items. The master list was reviewed by the two researchers to locate and

condense redundant items. The entire process is given in detail in Figure 1 in Appendix I. Each item was given a number to indicate the survey, focus group, or assessment response it came from (see Appendix I, labeled under “Source.”) To locate and condense redundant items, each researcher read the list of items by construct (e.g., attention, aggression). All items that were similar (e.g., “withdrawn,” “stays to self,” “plays alone”) were grouped into a single item category. For each item category, the number identifying which response the item came from was recorded. Reliability of item categories recorded by each researcher was established using the following method: The results from each researcher’s reduction to item categories were matched. Item categories that were not identified by both researchers were listed separately. The number of times a response was listed under an item category was noted (e.g., Item Category: “withdrawn;” graduate researcher recorded 122 responses and the undergraduate researcher recorded 131 responses that stated “withdrawn” or a similar term). Creating item categories in this way allowed the researcher to know how many times each item was mentioned.

At this point, the number of item categories was further reduced for four reasons: (1) some categories had over 100 items listed, which would be unwieldy to pilot test or use for a screener, (2) some item categories were similar but contained subtle differences, (3) items identified by teachers were not always given in operational terms, therefore the most concrete definitions are needed to reduce bias in the future screening instrument, and (4) some discrepancies between the item categories completed by each researcher were present. The first discrepancy was in the number and type of item categories. The second discrepancy was the number of items identified by each researcher in the item categories that matched. Further reduction of item categories occurred over three steps: (1) rewording and condensing item

Table 2

Decision Rules for Coding Survey and Focus Group Responses

Type of response	Definition and rationale for decision rule
Aggression	Responses related to verbal aggression, physical aggression, bullying, anger, and violence were all categorized under “aggression.” While each of these categories could apply to other areas (e.g., peer relationships), the key feature was aggression toward others.
Antisocial	Responses related to truancy/attendance, pouting, disruption, defiance, distracting peers, melt-downs, dishonesty, and destruction of property were placed in the “antisocial” category. Responses listed were generally categorized as externalizing behaviors, but the key feature was not aggression. They were also related to features of antisocial behaviors, which violated the rights of others or expected societal norms (Frick, 1998).
Academic	Responses related to non-participation, work incompleteness, and low grades were placed in the “academic” category. These responses can occur for a number of underlying reasons, but are most observable by their affects on academic functioning.
Attention	Responses related to attention, focus, daydreaming, and on-task behavior were placed in the “attention” category. These responses all related to how well students engaged in the academic tasks.
Hyperactivity	Responses related to excessive movement were placed in a “hyperactivity” category. Hyperactivity generally related to a degree of motion that was atypical for the age group of the student.
Internalizing	Responses related to emotions, depression, and anxiety were placed in the “internalizing” category. Internalizing behaviors are typically associated with depression and anxiety.
Peer relationship problems	Responses related to friendships, peer relations, ability to get along with others, and social skills were placed in the “peer relationship problems” category. These responses all relate to how and why a student may have difficulty in peer relationships.
Disrespect	Responses stating “disrespect” or “rudeness” without listing specific behaviors were placed in the “disrespect” category. This category was created because “disrespect” can be used to describe a variety of behaviors. Similar behaviors may be defined as disrespectful or appropriate depending on the individual observing the behavior.
Other	Responses that did not fit any of the other categories were placed in the “other” category. This category was used for items that did not readily fit other construct categories. It was used to determine if additional constructs may need to be added.

categories, (2) identifying and retaining item categories that were most often listed, and (3) selecting item categories that are concrete and observable.

Similar categories of items were combined into a single item category on the list (e.g., combining “fear of failure,” “not willing to try or take risks,” “gives up easily,” “refuses to participate”). Reliability was established by comparing the number of responses listed by each researcher for each item category (in Figure 1, the difference in number of responses by each researcher is listed under “Difference”). Large discrepancies in the number of items listed by each researcher for the item category were tagged. A large discrepancy was defined as one researcher identifying 11 or more responses than the other researcher in the item category. Each item category with a large discrepancy was resolved by individually comparing the responses that were part of the item category until the item category had a consistent underlying theme. Item categories were listed by one or several phrases from the responses from the surveys and focus groups that seemed to convey the overall meaning of the category. Item categories were then deleted from the list if they were not concrete and observable.

For a screening instrument, it would be ideal to have no more than 14 items on the screener after pilot testing. This can be divided by the seven a priori categories (i.e., attention, hyperactivity, aggression, internalizing, academics, peer relationship problems, and antisocial behavior). If an equal number of items come from each a priori construct, the end result will be two items from each category. A pilot testing requires at least two times the number of items as intended for the final instrument, as less efficient items will be eliminated from the screening instrument in the piloting process (Lane, 2002). As a result, the top six items from each item category will be selected for the final list of pilot testing. Another category called "other" was reviewed to see if any of the items are appropriate for inclusion even though they did not

originally fit into the selected a priori constructs. For an example of what the entire process of condensing and reducing items looked like, please see Appendix I.

RESULTS

This chapter details the results of the research in two major sections. The first section is a literature review used to develop and define the constructs. The constructs were first developed as they provide the structure for the second section, the creation of the test item pool,

Development and Definition of Constructs: Literature Review

The literature review was used to support or reject the selected a priori constructs for inclusion as a way to categorize responses from the survey and focus groups. The a priori constructs deemed relevant to EBD include attention problems, aggression, internalizing problems, noncompliance, disruption, academic problems, peer relationship problems, and school adjustment problems. Another category, antisocial behavior, was added; its inclusion is supported within the literature review. The tables describing the literature review are subdivided into five sections. *Research Articles on Characteristics/Outcomes/Comorbidity* briefly describes current research supporting the inclusion of the category into a conceptualization of EBD, based on either its correlation with EBD or its negative outcomes. *Prevalence of Problem* is included as the second subsection to give the reader an idea of the magnitude of the problem. The subsections of *Areas Where the Characteristic is Clinically/Educationally Implicated or Defined* and *Current Measures Including Characteristic* provide information on how other researchers have integrated the category into their own conceptualization of EBD and create a stronger case for the validity of using the category. *Include Construct in Screener?* offers the conclusion of whether or not the evidence from the literature review was sufficient to include it in the screener. An outline of research findings for each a priori construct is detailed in Appendix J.

Items for this screener must be selected according to conceptual constructs that indicate risk for developing EBD. Original a priori constructs were selected and researched. The

constructs of attention, aggression, internalizing problems, academic problems, and peer relationship problems were retained based on this review. The category of school adjustment problems was dropped from the screener, as the current literature did not sufficiently differentiate it from other categories included in the screener. Based on a search for research on the categories of noncompliance and disruption, it was found that there was insufficient evidence to include these as separate categories, but that they fit well under an umbrella category of antisocial behavior. With the screener category constructs validated by the literature review, items selected for the test pool have been based on this conceptual framework.

Creation of Test Item Pool

Search for Items

A reading of the reviews (from peer-reviewed journals or *Mental Measurements Yearbook*) for over 80 assessments resulted in a list of 22 assessments meeting the stated inclusion criteria. Of the 22 assessments, the researcher already had access to nine of these assessments through personal and university resources. To collect items from the remaining 13 assessments, research articles that might list items were sought out.

Of the identified 22 assessments, four could not be located or had research articles describing them, and four had insufficient information published in the research articles that described them. Items were also taken from a research study about teacher expectations of students. This resulted in a total of 15 sources from which possible items were taken. A list of the assessments and research articles used and can be found in Appendix H. Items were categorized and listed according to the categories identified in the literature review. A total of 536 items were selected from these assessments and screeners for inclusion in the list of possible items. The

focus group and email survey resulted in 2,108 possible items to be included in the screening instrument.

Compilation and Refining of Items

Items identified from other assessments and research studies were added to the final list from the focus groups and surveys. This compilation into a final list resulted in 2,644 possible items. Reduction of item categories took place over three steps: (1) rewording and condensing item categories, (2) identifying and retaining item categories most often listed, and (3) selecting item categories that were concrete and observable. At this point, the construct groups were attention, hyperactivity, aggression, internalizing behaviors, academic problems, peer problems, antisocial, disrespect, and other. Within each category, the graduate and undergraduate assistant independently grouped items into item categories. (The category of disrespect was not inspected to create a unique list of items. A review of the list revealed that most items were simply the word disrespect.) The two researchers completed this task independently and results were compared.

A short description of the number of items at each stage of condensing and rewording process are listed in appendices K–N. Tables 3–9 list the final item categories selected for pilot testing of the screening instrument by construct. Some of the item categories listed have wording for reverse scoring. Each of the final item categories also has a possible re-wording of the item category to represent a single item.

Table 3

Final List of Item Categories and Reworded as Single Item for Attention Construct

Item Category	Possible Rewording for a Single Item
1. Can't or doesn't pay attention/short attention span	1. Has short attention span.
2. Is off task/is engaged	2. Is off-task
3. Is not listening/needs questions and directions repeated	3. Does not seem to hear directions
4. Just checks out/blocks the mind/mind seems to be elsewhere/is not alert/is not aware/stares off into space/is preoccupied	4. Stares off into space
5. Hard time completing his or her work/does not finish projects	5. Does not finish work.
6. Not following directions	6. Does not follow directions.

Table 4

Final List of Item Categories and Reworded as Single Item for Hyperactivity Construct

Item Category	Possible Rewording for a Single Item
1. Has trouble staying seated/wanders around the room/runs around the room	1. Does not stay in seat.
2. Doesn't seem able to settle down/fidgets/is highly active	2. Seems more active than peers.
3. Is calm	3. Appears calm.

Table 5

Final List of Item Categories and Reworded as Single Item for Aggression Construct

Item Category	Possible Rewording for a Single Item
1. Is unable to control anger (physical or verbal)/has explosive temper/has poor emotional regulation/is easily provoked/has anger/has rage	1. Becomes angry quickly.
2. Has physical aggression/pushes/hits/kicks/bites/sits on/attacks physically/does unwanted physical contact/is violent/spits	2. Hits, kicks, or is otherwise physically aggressive.
3. Uses verbal aggression/bullies/calls names/insults/puts down/belittles/is verbally abusive/makes fun of/taunts/lashes out/writes hate messages/does social bullying/gossips/is emotionally aggressive or abusive/teases/swears at others	3. Makes fun of, insults, or is otherwise verbally aggressive.
4. Bullies	4. Consistently targets specific peers with whom to be aggressive.
5. Fights	5. Gets in fights
6. Threatens	6. Makes threats.

Table 6

Final List of Item Categories and Reworded as Single Item for Internalizing Behavior Construct

Item Category	Possible Rewording for a Single Item
1. Withdraws/stays to self/is isolated/stays by self/quickly joins groups or activities/pulls into selves/plays alone/has loner behavior/is aloof/is shy/is difficult to engage/is disengaged/isn't willing to put self out/doesn't enjoy being with other children/avoids	1. Avoids social interaction.
2. Cries/has tears	2. Cries.
3. Is not happy/is happy/never seems to express joy/expresses joy and accomplishment	3. Does not express joy.
4. Has anxiety/is nervous/is high-strung/is tense/is nervous or clingy in new situations/is nervous over tests/has worries/worries what other children think	4. Shares worries and/or fears.
5. Is sad/is distressed/is sullen/is despondent/writes sad stories/hopeless	5. Expresses or appears sad.
6. Self-inflicts pain/harms self/cuts/bangs head/hits self/is masochistic/threatens to hurt self/is self-destructive/is suicidal	6. Hurts self.

Table 7

Final List of Item Categories and Reworded as Single Item for Academics Construct

Item Category	Possible Rewording for a Single Item
1. Doesn't participate/is not engaged in learning process	1. Does not participate in classroom activities.
2. Does not complete work, tests, or homework/is not productive	2. Does not complete school work.
3. Is behind academically/is underachieving/has low academics/has deficits with school work/has low achievement/is unable to do grade level work	3. Grades are below those of peers.
4. Doesn't ask for help/asks questions/pretends to understand/asks for clarification of instructions appropriately	4. Doesn't ask for help or clarification.
5. Has poor quality work/evaluates work	5. Completed work is poor quality.
6. Gives up without trying assignment	6. Does not try to do an assignment.
7. Has difficulty with word-attack skills or language arts accuracy or reading fluency or spelling or reading comprehension or vocabulary/has poor written expression skills	7. Difficulty with language arts/literacy skills.

Table 8

*Final List of Item Categories and Reworded as Single Item for Peer relationship problems**Construct*

Item Category	Possible Rewording for a Single Item
1. Has difficulty making or keeping friends/lacks of friends/is able to connect with others/can be a friend	1. Has few friends.
2. Has inappropriate social behaviors/is not age appropriate/has social problems/lacks of social skills/is behind socially	2. Does not exhibit age appropriate social skills.
3. Is non-cooperative/is difficult to get along with/works in groups with others/interacts poorly	3. Does not seem to work or play well with others.
4. Is kind/tolerates others/interacts with wide variety/disregards or lack of awareness of others' feelings/doesn't understand problems and needs of other students	4. Shows by interactions that s/he is tolerant and understanding of others.
5. Is friendly or outgoing	5. Attempts to get to know others in a friendly way.
6. Is positive with peers/plays nice/encourages others to do their best/brings out best in others/nurtures, compliments or congratulates others	6. Has positive interactions with peers.

Table 9

Final List of Item Categories and Reworded as Single Item for Antisocial Construct

Item Category	Possible Rewording for a Single Item
1. Yells/screams/shouts/cries/is difficult to control/has tantrums/has melt-downs (when he or she doesn't get own way)	1. Yells or has tantrums.
2. Is disruptive/talks when teacher is	2. Disrupts the class.
3. Does not follow directions/ignores teachers and school personnel/is uncooperative/is non-compliance	3. Refuses to follow directions.
4. Breaks rules/is disobedient	4. Breaks rules.
5. Is helpful or courteous or kind/plays fairly/is well-mannered/is eager to please/is pleasant	5. Helpful with others.
6. Lies/deceives others/is dishonest/cheats/does deceitful plotting	6. Lies or cheats.
7. Uses inappropriate behavior for attention/ is attention-seeking/shows-off/brags	7. Seeks to be center of attention.
8. Refuses to engage in learning or activities/does not work when capable/shuts down	8. Refuses to do work.

DISCUSSION

This research resulted in a final list of items that may be included in a final version of a screening instrument. The methods employed to create this list of items were designed to meet three goals for the proposed screener. These goals include (1) the screener requires little time to be completed, (2) has items measuring risk for both internalizing and externalizing behaviors, and (3) teachers provide a universal rating (i.e., rate each of their students). The results provide a start for these goals. The items should be reduced after the screener is pilot tested. The forty-two possible items are a sufficient number to reduce the length of the screener to something that can be completed by teachers on all of their students in a short amount of time. This will help teachers consider key warning signs for all of their students. The proposed items include items describing both internalizing and externalizing behavior problems. This characteristic is particularly needed as internalizing behavior problems can be and have been easily overlooked due to their non-disruptive manifestations (Kendziora, 2004). By enhancing the efficiency for early detection of students at-risk for emotional and behavioral disorders, school personnel may be better able to employ preventive measures to reduce future difficulties for students, which is generally more effective than waiting for a child's difficulties to become more serious (Kauffman, 1999).

Current screening instruments meet the three goals for this screener only in part. (See Appendix G for references for this section). For instance, the SSBS, SESBI-R, SRSS, BASC TRS-C prototype screener, and SAED are all reported to require ten minutes or less to complete. The SSBD, R-PBC, CRS-R, and SAED all include scales for both externalizing and internalizing symptoms. Only the SSBD and SRSS are considered universal screeners. None of the

instruments listed above meets all of the three stated goals for the proposed screening instrument. It is anticipated that the proposed screening instrument will thus be able to fill a unique need.

Strengths

The creation of the test item pool has several strengths. Strengths include the literature review to confirm a priori constructs, teacher input for items, and use of concrete and observable terms. The literature review of a priori constructs was valuable in selecting constructs into which items in the item pool would fit. The literature review gave support for initially removing some of the a priori constructs (school adjustment problems, noncompliance, and disruption), while ruling out the possibility that other essential constructs were not inadvertently left out.

By using teacher responses to focus groups and email surveys, as well as items from current assessments and screeners, researchers were able to focus on items that described things that teachers already observe and that are included in already validated assessments. Another strength of the developed item pool is its use of concrete and observable terms. Such terms help to reduce the possibility of a rater's biases interfering with the correct identification of children with emotional and behavioral disorders.

Limitations

Limitations of the study include overlap associated with different constructs in their screening items, difficulties associated with reducing the data to a usable amount, limited participation in focus groups, use of only two researchers for aggregating the data, only one construct representing internalizing behaviors, and limited diversity in the population sampled from for the focus group and email surveys. Different constructs for the screening instrument sometimes had a degree of overlap in how individual items could be categorized. For instance, should "withdrawal" be categorized as an internalizing behavior problem or as a problem in peer

relationships? “Not finishing work” could be categorized as an attention problem or as an academic problem. Such questions ended up being resolved by looking at the context of the whole statement and using general decision rules. Overlap made categorization of items more difficult, but underlines the importance of these items, as they may affect multiple areas of functioning for the student. Many researchers have noted the need for a more definite definition of emotional and behavioral disorders (e.g., Cullinan, 2004; Kauffman, 2005). This research supports the call for a more precise definition of EBD to be developed. Such a definition of EBD would clarify how individual items should be categorized. Future research in this area may allow researchers to more efficiently identify EBD in children.

Another limitation of this study was the necessity of reducing the data to a usable amount. When items must be grouped into item categories, the individual item loses some of the specific information. For example, one of the item groupings could be labeled “physical aggression” which is more abstract than many of the items included in the category, such as “hitting, kicking, spitting, etc.” In addition, some survey responses would only state “physical aggression.” Stating the item in non-observable terms forced some interpretation on the part of researchers that the respondent would probably include hitting and kicking into the category of physical aggression. As response length and quality varied across email surveys, future research may be enhanced by preparing a specific set of follow-up questions for each response. Such questions may ask teachers to indicate a length of time student difficulties would have to be present, the frequency of the problem behavior, the potential outcomes they perceive from the problem behavior, and for illustrative examples of the problem behavior. Such questions would be helpful in determining how teachers define more abstract terms, such as “physical aggression”

and would allow more precise language to be used for items in the screening instrument. This limitation was affected by the limitation of a small number of participants in the focus groups.

The small number of focus group participants necessitated the use of an email survey. Unfortunately, in a survey the researcher was unable to request that teachers be more concrete or to give examples in their responses. Email surveys are also limited in the richness of the information gathered. In a focus group setting, participants can discuss ideas with each other. In an individually completed survey, participants may not be involved enough to think deeply about the topic. The outgrowth of this dynamic is that the length of responses was highly variable. Some responses consisted of a few words, while others were descriptions of specific situations that the teachers had encountered.

While the two researchers involved did their best to correctly identify and code items, some human error may be inevitable. Such errors are strongly influenced by the large amount of data. Possible errors may include not recording occurrences of an item, miscategorizing items, or even double-counting items. Researchers endeavored to minimize possible errors by independently transcribing, coding, and categorizing items. These independent activities were compared and differences resolved by the author of this thesis. Future research may be enhanced by including additional coder(s) to monitor reliability of the scoring procedure.

One of the main goals of screening development was to create a screener that assessed both internalizing and externalizing behaviors, recognizing that there is a great need to screening for students with internalizing behaviors, as these behaviors can be overlooked (Kendziora, 2004). The literature review resulted in only one construct of the seven specifically representing internalizing behaviors. This is partially a result of where items for the screener were drawn from. Items for internalizing behaviors are not as well documented in current assessments,

resulting in fewer items from which to draw. In addition, these behaviors are not as easily observed nor are they a teachers greatest concern or priority when it comes to problem behaviors in a classroom (Kendziora, 2004). This fact further reduces the number of email and focus group responses that teachers would have shared describing internalizing behaviors of concern. Ideas of how to make internalizing behaviors more prominent in the screening process are addressed in the section on future research.

Finally, the limited diversity in the sampled population may have created bias in the responses to the focus groups and email surveys. While ethnicity data on teacher participants was not collected, teachers in Utah are primarily Caucasian. They may have different cultural experiences leading to different expectations than teachers who are from other parts of the country or who have different cultural and ethnic backgrounds.

Implications for Practice

The research reported in this thesis provides the first steps in the creation of a new screening instrument for emotional and behavioral disorders. It is hoped that the careful construction of this screening instrument will encourage its use by teachers and school administrators. In addition to the school personnel, this screening instrument may be useful to researchers who are interested in studying prevention and intervention programs in a more naturalistic setting and with students who have not reached critical symptoms levels.

This screening instrument can be the first step in identifying students who would most benefit from preventative programs. A possible consequence of more efficient identification of students is that more students in the school system may be identified. If more students are identified, schools may be responsible for providing more assessment and support to these students. Providing added support may necessitate that schools become innovative in creating

prevention and intervention programs that effectively intervene. In an example of such a program is school-wide positive behavior support, which is designed to coordinate screening, prevention, and intervention efforts for students in such a way to meet all student needs (Sugai & Horner, 2006).

This research also highlights the need to use concrete, observable language in describing and intervening with emotional and behavioral problems associated with EBD. While teachers may use observable terms (e.g., hitting, crying, smiling), only one or two teachers responded with specifics about frequency or duration of a behavior. Specifically, those working with teachers in the schools need to remember to elicit such terms from the teachers when they describe student behaviors. By using concrete and observable definitions, as are anticipated for this screening instrument, research and intervention may be enhanced in the school setting. Concrete terms can be used to create definitive limits of acceptable behavior from the standpoint of student well being and to create common expectations and language throughout the school community

Finally, the research serves as a valuable reminder that teachers have a range of expectations for what is acceptable in their classrooms and take notice of different behaviors. Given this range, it is important to be acquainted with teachers' styles and preferences. Such an acquaintance may allow for clearer communication when presenting results from screenings and when suggesting appropriate interventions for students.

It will also offer support for teachers to become better informed in the preliminary stages of classroom and behavior management strategies, specifically, in operationally defining appropriate and inappropriate behaviors. Informing effective classroom management

practices in our schools is one of most significant needs in our schools today (McKinney, Campbell-Whately, & Kea, 2005, pp. 16–20).

Future Steps in Creating the Screening Instrument

Further research will be needed before the selected items are ready for pilot testing. Since teachers are the targeted users of this screener, it would also be beneficial to get teacher input on clarity of items and format. Recommended steps for preparing the current screening items for pilot testing include asking a panel of experts (e.g., educators, researchers) in the field of emotional and behavioral disorders to (a) rate the items identified in the results of this thesis and (b) recommend formatting options for the screener as appropriate for elementary-age school children. Asking teachers questions related to the social validity of the screener will enable its designers to refine the screener in ways that will increase the likelihood of it being acceptable and feasible for use in schools.

Further pilot testing of the screener is recommended. The final 42 items identified by this project are still too many to be feasibly completed by a classroom teacher. This project was specifically designed to create a pool of items that can be narrowed down empirically. This empirical selection of items should be based on actual pilot testing of items that compares student scores on the screener to other validated assessments. This will in turn create norms for the screener of when a student should be referred for additional assessment and possible intervention. Ideally, the norms and cut-off scores would be designed to detect more false positives than false negatives. A greater number of false positive would mean more children being referred for further assessment and fewer children not identified who would actually benefit from services.

Additionally, it is recommended that a Likert rating on each item be used instead of a single indicator of risk for each item. It is a regular part of human development to be sad, angry, have a disagreement with a friend, or any number of other potential problems in childhood. A single indicator of risk may not fully capture student needs or indicate their severity. Using a Likert scale, specifically indicating the frequency of behavior, will allow researchers to create better norms of when a score on the screener merits further assessment of the student by professionals.

The limitation of a small number of internalizing items in the screener may be overcome by rating items related to internalizing behaviors independently of the overall score. These items could be used to indicate need for further assessment by looking at the total score on a Likert scale, the total score compared to the average scores of other items on the screener, or by using a combination of these techniques. Using these techniques may indicate severity or severity of internalizing behaviors in relation to other problematic behaviors—severity being a key element in identifying and assessing EBD (Kauffman, 2005).

Conclusion

The characteristics of the screening instrument chosen as ideal for this study were selected with three main goals in mind: detect students at-risk for EBD who might usually be overlooked (a universal screener), detect both internalizing and externalizing disorders, and to increase the likelihood of the screener being used by schools. While the first two goals must await pilot testing to verify if these goals have been reached, further research would be helpful in determining which screeners are actually selected by school systems and what characteristics influenced the selection. Such research could be helpful in fine-tuning the screening instrument as well as helping guide school systems to the type of assessments that would best fit their needs.

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Appendix A: Form Used for Teacher Focus Group and Email Survey.

Teacher Focus Group

Date: _____

Moderator: _____

1. Of the behaviors you see in your classroom, which three concern you the most and why?
2. What classroom behavior most interferes with a child's learning?
3. Do you observe behaviors in students that are not disruptive, but do interfere with student learning? (internalizing types of behaviors)
4. What types of behaviors do you feel it is appropriate to refer a child to a school psychologist for?
5. What types of emotional displays do you feel it is appropriate to refer a child to a school psychologist for?

Note: Teachers may be asked to expand, explain, or clarify their comments.

Additional Discussion Questions if there is Sufficient Time

6. What classroom behavior interferes most with peer learning?
7. What classroom behavior most interferes with teacher instruction?
8. What behavior most interferes with positive peer interactions?
9. Are there any non-disruptive, social/emotional behaviors that you observe in your students that interfere with student's ability to interact successfully with adults?
10. Of the students you observe who have few friends, what three behaviors or skills would they need to gain friends?
11. What behaviors are typical of a student who is socially competent in peer interactions?
12. What behaviors are typical of a student who is socially competent in child-adult interactions?

13. At what point do you feel it is appropriate to refer a child for evaluation related to the child's behaviors(severity of behavior)?
14. What are the characteristics of a behaviorally successful student?

Email Survey

1. What grade do you teach?
2. Of the problem behaviors you see in your classroom, which three concern you the most and why?
3. Some students tend to have internalizing behaviors as they appear to be anxious, sad, withdrawn, depressed, or lonely. How do you see these behaviors demonstrated in your classroom? In what ways do they interfere with student learning?
4. What types of behaviors do you feel it is appropriate to refer a child for further support and intervention?
5. What types of emotional displays do you feel it is appropriate to refer a child for further support and intervention?
6. What behaviors are characteristic of a behaviorally and emotionally successful student?

Appendix B: IRB Approved Consent Form for Focus Group

Consent to be a Research Subject

Introduction

This research is being conducted by Laura Conley and Dr. Michelle Marchant of Brigham Young University to determine the types of behaviors that are indicative of students having problems at school and how teachers perceive these behaviors. You were asked to participate because of your experience teaching in the schools.

Procedures

You will be asked to participate in a focus group. The focus group will last approximately 1 hour and be located at [location to be determined]. Questions will include information on the types of classroom behaviors that concern you and differences you notice between students, as well as some demographic information, such as the type of class you teach and your years of experience. The focus group will be audio-recorded and then transcribed.

Risks/Discomforts

There are minimal risks for participation in this study. When participating in the focus group, it is possible that you may feel embarrassed when talking in front of others. The moderator will be sensitive to those who may become uncomfortable, and questions will be directed at your perceptions and not how you react to students' problem behaviors.

Benefits

There are no direct benefits to subjects. However, it is hoped that through your participation researchers will learn more about behavior problems of students resulting in a screening instrument for emotional and behavioral disorders.

Confidentiality

All information provided will remain confidential. Audio recordings from the focus group will be kept locked, and only those directly involved with the research will have access to them. After the research is completed, the audio recording will be destroyed. Transcriptions of the audio recording will contain no identifying information.

Compensation

Participants will receive a \$15 gift certificate to a local restaurant or store.

Participation

Participation in this research study is voluntary. You have the right to withdraw at anytime or refuse to participate entirely without affecting your employment or standing at your institution.

Questions about the Research

If you have questions regarding this study, you may contact Laura Conley at 372-7818, conley.laura@gmail.com or Dr. M. Marchant at 422-1238, michelle_marchant@byu.edu.

Questions about your Rights as Research Participants

If you have questions you do not feel comfortable asking the researcher, you may contact Dr. Christopher Dromey, IRB Chair, 422-6461, 133 TLRB, christopher_dromey@byu.edu

I have read, understood, and received a copy of the above consent and desire of my own free will to participate in this study.

Signature: _____

Date: _____

APPROVED EXPIRES
DEC 14 2008 - DEC 13 2009

Appendix C: Flier for Focus Group

Volunteer to be in a Focus Group

The focus group will be about behaviors you observe in your classroom.

Purpose

Development of a screening instrument for emotional and behavioral disorders.

When

Date, time, location (insert later)

Who to Contact

Laura Conley, BYU Graduate Student
801-372-7818

Token of appreciation

\$15 gift certificate to local restaurant or store.

APPROVED EXPIRES
DEC 14 2007 - DEC 13 2008

Appendix D: Email Survey Consent Form

Consent to be a Research Subject

Introduction

This research is being conducted by Laura Conley and Dr. Michelle Marchant of Brigham Young University to determine the types of behaviors that are indicative of students having problems at school and how teachers perceive these behaviors. You were asked to participate because of your experience teaching in the schools.

Procedures

You are being asked to participate in an email survey that will take 10-15 minutes to complete. Questions will include information on the types of classroom behaviors that concern you and differences you notice between students, as well as some demographic information, such as the type of class you teach and your years of experience.

Risks/Discomforts

There are minimal risks for participation in this study. Questions address your perceptions student problem behavior and not how you react to students' problem behaviors.

Benefits

There are no direct benefits to subjects. However, it is hoped that through your participation researchers will learn more about behavior problems of students resulting in a screening instrument for emotional and behavioral disorders.

Confidentiality

All information provided will remain confidential. After survey responses have been recorded in a format without identifying information, original responses will be destroyed. Transcriptions of the audio recording will contain no identifying information. The overall results from all participants will be shared with the school district.

Participation

Participation in this research study is voluntary. You have the right to withdraw at anytime or refuse to participate entirely without affecting your employment or standing at your institution.

Questions about the Research

If you have questions regarding this study, you may contact Laura Conley at 372-7818, conley.laura@gmail.com or Dr. M. Marchant at 422-1238, michelle_marchant@byu.edu.

Questions about your Rights as Research Participants

If you have questions you do not feel comfortable asking the researcher, you may contact Dr. Christopher Dromey, IRB Chair, 422-6461, 133 TLRB, christopher_dromey@byu.edu
I have read, understood, and received a copy of the above consent and desire of my own free will to participate in this study.

- Yes, I consent to participate
 No, I do not consent to participate

APPROVED EXPIRES

APR 18 2008 - DEC 13 2009

Appendix E: School Support Letters

Jordan School District*A Full Spectrum of Educational Opportunities*Barry L. Newbold, Ed.D.
Superintendent of Schools9361 South 300 East
Sandy, Utah 84070-2998**Accountability & Program Services**Clyde W. Mason, M.Ed.
Director801 567-8243 Phone
801 567-8017 Fax
www.jordandistrict.org

February 13, 2008

Laura Conley
25 E. 900 N. #3
Provo, Utah 84604

Dear Laura:

Your request to conduct a research project in the Jordan School District concerning "Development of the Item Pool for a Screening Instrument of Emotional and Behavioral Disorders of Elementary School Students" has been given district level approval by the District Research Review Committee. Although you have received Research Review Committee approval, this decision does not obligate a school or its staff to participate if circumstances or events are such that the research would create problems or would be overly burdensome.

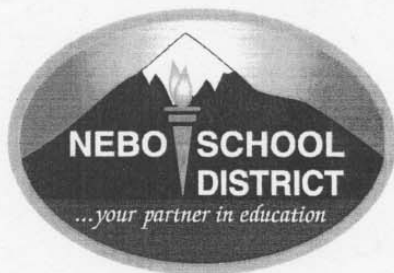
As agreed in our phone conversation today, please prepare and send me an email containing your flyer which invites teachers to participate and provides a contact phone number if interested. Please make sure to indicate in your email that interested persons should call you by phone and not attempt to reply to the email.

Upon receipt, I will forward your email to elementary school principals, along with a note of district level approval and a request to forward the email to their teachers. I will also stress that interested teachers should contact the researcher by phone.

Please send a copy of your final findings, conclusions, and recommendations from the study to the Accountability and Program Services Department. Thank you for your interest in conducting research in Jordan School District.

Sincerely,

Clyde W. Mason, Chair
Research Review Committee



OFFICE OF ADMINISTRATION
 350 SOUTH MAIN STREET □ SPANISH FORK, UTAH 84660
 PHONE (801) 354-7400 □ FAX (801) 798-4010

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BUSINESS ADMINISTRATOR
 Tracy D Olsen

February 11, 2008

Laura Conley
 25 East 900 North #3
 Provo, UT 84604

Dear Laura Conley:

We received your research proposal, "Development of the item pool for a screening instrument of emotional and behavioral disorders of elementary school students." Nebo School District's Curriculum/Staff Committee has reviewed your proposal and has approved the research/survey to be administered within the District.

Since this authorization is at the District level only, each individual administrator has the option as to whether or not his/her particular school will participate. It is also recommended that a copy of this letter be given to the school's administrator prior to further discussions of research implementation at the school level.

Following committee approval, there should be no changes in methodology or instrumentation unless approved by the Curriculum/Staff Committee.

Please call me if you have any questions regarding your research in Nebo School District.

Sincerely,

Everett Kelepolo,
 Coordinator

Wasatch School District Support: Email

February 26, 2008

Laura,

I have looked over your project. I believe it is very important information for us in education to have. You have our approval to move forward. Do you need a list of our special education teachers?

Vicci

Vicci Gappmayer
Wasatch School District
Student Services/HR Director
vicci.gappmayer@wasatch.edu

Appendix F: IRB Approval Letter

INSTITUTIONAL REVIEW BOARD FOR
HUMAN SUBJECTS



December 14, 2007

Laura Conley
25 E 900 N, #3
Provo, UT 84604

Re: Development of the Item Pool for a Screening Instrument of Emotional and Behavioral Disorders of Elementary School Students

Dear Laura,

This is to inform you that Brigham Young University's IRB has approved the above research study.

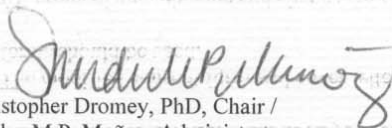
The approval period is from **12/14/2007 to 12/13/2008**. **Your study number is X07-0334**. **Please be sure to reference this number in any correspondence with the IRB.**

Continued approval is conditional upon your compliance with the following requirements:

- The modified consent form and cover letters have been approved as of 12/14/2007. No other consent forms should be used.
- All protocol amendments and changes to approved research must be submitted to the IRB and not be implemented until approved by the IRB.
- **The enclosed recruitment cover letter has been approved.** Advertisements, letters, Internet postings and any other media for subject recruitment must be submitted to IRB and approved prior to use.
- A few months before this date we will send out a continuing review form. There will only be two reminders. Please fill this form out in a timely manner to ensure that there is not a lapse in your approval.

If you have any questions, please do not hesitate to call me.

Sincerely,


Christopher Dromey, PhD, Chair /
Sandee M.P. Muñoz, Administrator
Institutional Review Board for Human Subjects
CD/se
Enclosures

Appendix G: Characteristics of Screening Instruments for Emotional and Behavioral Disorders

Screening instrument	Universal Screener	Time to Complete	Format	Cost	Indications for Further Assessment	Identifies Internalizing and Externalizing Symptoms or Other
Systematic Screening of Behavior Disorders (SSBD)	Yes.	1 hour for first two stages. ²	Stage 1: Teachers write names of 10 students with internalizing and externalizing behaviors. Teachers rank students. ²	\$113.95 for complete kit. ³	Six students identified at first stage are assessed at second stage. ²	Students are differentiated as having internalizing or externalizing difficulties immediately. ²
School Social Behavior Scale (SSBS)	No. ⁴	5–10 minutes. ⁴	64 Likert-type items on student behaviors. ⁵	Manual: \$50; 25 forms: \$37. ⁴	Further assessment needed when students score in “at-risk” range in social competence or antisocial behavior scales. ⁵	Externalizing scales: hostile/irritable, antisocial/aggressive, and defiant/disruptive. Internalizing Scales: None Other Scales: peer relations, self-management/compliance, and academic behavior not indicated. ⁵
Revised Behavior Problem Checklist (R-PBC)	No. ¹⁵	20 minutes to administer ; 10 minutes to	Rates child on 3 point Likert-type scale. 89 items. ⁷	Manual: \$34; 25 test booklets: \$60; 25 profile sheets: \$26. ¹⁵	To be used as part of a more comprehensive assessment. ¹⁵	Externalizing scales: conduct disorder, socialized aggression, attention problems-immaturity, motor tension-excess;

		score and profile. ¹⁵				Internalizing Scales: Anxiety-withdrawal. Other scales: Psychotic behavior. ¹⁵ Identifies disruptive behavior problems. ⁶
Sutter-Eyberg Student Behavior Inventory (SESBI-R)	No. ⁶	5 minutes to administer ; 5 minutes to score. ⁶	38 items on the frequency of behaviors rated on a 7-point scale. Yes or No rating for if the behavior is problematic. ⁶	Manual: \$45; 25 test sheets: \$34. ⁶	Unknown.	
Student Risk Screening Scale (SRSS)	Yes. ¹	5 minutes to rate entire class. ¹	7 items; rate frequency of behaviors on a 4-point scale. ⁸	Publisher no longer exists.	Scores of nine or higher may need further assessment. ⁸	Externalizing symptoms. ⁹
Conners' Rating Scales-Revised (CRS-R)	No. ¹⁰	5–20 minutes. ¹⁰	Short (28 items) and Long forms (59 items) available. 4-point scale rating severity of behavior problems. ^{10, 14}	User's Manual: \$47; 25 QuikScore forms: \$41. ¹⁰	Directs detailed observations in classroom and further inquiry. ¹¹	Short Form Externalizing scales: oppositional, hyperactivity, cognitive problems/inattention, ADHD Index Long Form Externalizing scales: oppositional, cognitive problems/inattention, hyperactivity, ADHD Index. Internalizing scales: Anxious-

Response to Intervention (RTI)	Variable	Variable	Variable	Variable	Lack of improvement with intervention indicates need for further assessment	Shy. Other Scales: Social problems, Perfectionism, Conner's Global Index. ¹⁰
Scale for Assessing Emotional Disturbance (SAED)	No. ¹³	10 minutes. ¹³	52 items. ¹³	\$100 for Examiner's manual and 50 Summary/Response forms. ¹³	Unknown.	No. Externalizing Scales: Inappropriate Behavior, Socially Maladjusted (for students 12 and older only). Internalizing Scales: Unhappiness or Depression, Physical Symptoms or Fears. Other Scales: Overall Competence, Inability to Learn, Relationship Problems. ¹²

Behavior Assessment System for Children-Teacher Rating Scale-Child (BASC TRS-C) prototype screener	No. ¹⁶	5 minutes per student ¹⁶	23 items ¹⁶	Not available. ¹⁶	Indicates future cut-off scores will have to be selected according to the purpose of screening. ¹⁶	Scales listed are those that screening items were selected from on the original BASC. Externalizing: Attention problems, hyperactivity, aggression. Adaptive: Adaptability, learning, study skills, leadership. Other: Learning problems.
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Notes. 1. Sevenson et al. (2007); 2. Walker & Sevenson (1992); 3. Sopris West Educational Services (n.d.); 4. Assessment-Intervention Resources, (n.d.); 5. Merrell (2002); 6. Psychological Assessment Resources Inc. (n.d.a); 7. Dezolt (2004); 8. Walker, Ramsey, & Gresham (2004); 9. Drummond, Eddy, Reid, & Bank (1994). 10. Multi-health Systems Inc. (n.d.); 11. Conners, et al. (1998); 12. Owens (2001); 13. Pro-ed (n.d.); 14. Knoff (2001); 15. Psycholocial Assessment Resources Inc. (n.d.); 16. Kamphaus et al. (2007).

Appendix H: *References of Assessments Used for Item Search*

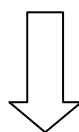
Assessment	Source
Academic Competence Evaluation Scales	DiPerna, J. C., & Elliott, S. N. (1999). Development and validation of the academic competence evaluation scales. <i>Journal of Psychoeducational Assessment, 17</i> , 207–225.
Achenbach System of Empirically Based Assessment-Teacher Rating Form	Achenbach, T. M.; Rescorla, L. A. (2001). <i>Manual for the ASEBA School-Age Forms & Profiles</i> . Burlington, VT: University of Vermont, Research Center for Children, Youth, & Families.
ADHD Symptoms Rating Scale	Holland, M. E., Gimpel, G. A., & Merrell, K. W. (1998). Innovations in assessing ADHD: Development, psychometric properties, and factor structure of the ADHD Symptoms Rating Scale (ADHD-SRS). <i>Journal of Psychopathology and Behavioral Assessment, 20</i> , 307–332.
Academic Performance Rating Scale	DuPaul, G. J., Rapport, M. D.; Perriello, L. M. (1991). Teacher ratings of academic skills: The development of the academic performance rating scale. <i>School Psychology Review, 20</i> (2), 284–300.
Antisocial Process Screening Device	Dadds, M. R., Fraser, J., Frost, A., Hawes, D. J. (2005). Disentangling the underlying dimensions of psychopathy and conduct problems in childhood: A community study. <i>Journal of Consulting and Clinical Psychology, 73</i> (3), 400–410.
Behavior Assessment System for Children, Second Edition	Reynolds, C. R.; Kamphaus, R. W. (2004). <i>Behavioral Assessment System for Children, Second Edition Manual</i> . Circle Pines, MN: AGS Publishing.
Behavior Assessment System for Children-Screener	Kamphaus, R. W., Thorpe, J. S., Winsor, A. P., Kroncke, A. P., Dowdy, E. T., VanDeventer, M. C. (2007). Development and predictive validity of a teacher screener for child behavioral and emotional problems at school. <i>Educational and Psychological Measurement, 67</i> (2), 342–356.
Behavioral and Emotional Rating Scale	Epstein, M. H.; Sharma, J. M. (1998). <i>Behavioral and Emotional Rating Scale</i> . Austin, TX: Pro-Ed.
Preschool and Kindergarten Behavior	Merrell, K. W. (2002). <i>Preschool and Kindergarten Behavior Scales, Second Edition</i> .

Scales, Second Edition	Austin, TX: Pro-Ed.
Scale for Assessing Emotional Disturbance	Cullinan, D., Harniss, M., Epstein, M. H., Ryser, G. (2001). The Scale for Assessing Emotional Disturbance: Concurrent validity. <i>Journal of Child and Family Studies</i> , 10(4), 449–466.
Student Risk Screening Scale	Drummond, T.; Eddy, M.; Reid, J. B.; Bank, L. (1994). <i>The Student Risk Screening Scale: A brief teacher screening instrument for conduct disorder</i> . Paper presented at the Fourth Annual National Prevention Conference, Washington DC, November, 1994
Systematic Screening for Behavior Disorders	Walker, H. M.; Severson, H. H. (1992). <i>Systematic Screening for Behavior Disorders</i> . Longmont, CO: Sopris West.
School Social Behavior Scales, Second Edition	Merrell, K. W. (2002). <i>School Social Behavior Scales Second Edition User's Guide</i> . Eugene, OR: Assessment-Intervention Resources
Social Skills Rating System	Gresham, F. M.; Elliott, S. N. (1990). <i>Social Skills Rating System Manual</i> . USA: American Guidance Service, Inc.
Research Article	Lane, K. L., Wehby, J. H., & Cooley, C. (2006). Teacher expectations across the grade span: Which social skills are necessary for success? <i>Exceptional Children</i> , 72(2), 153–167.

Appendix I: *Figure 1. Condense and Reduce Items*

Master List of All Responses for "Internalizing"	
Source*	Item
4	withdrawn behavior poor self concept - evident in work and attitude aggressive behavior
5	bad attitudes
8	Apathy
13	Insecurity

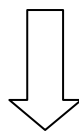
*Indicates survey, focus group, or assessment response the item was taken from.



Researchers' Independent Coding of Responses into Item Categories			
Graduate Researcher Item Categories			
Item Category	Count*	1st Instance**	2nd Instance
withdrawn/stays to self	73	4	48
poor self-concept	1	4	
bad attitudes	1	5	
Undergraduate Researcher Item Categories			
Item Category	Count	1st Instance	2nd Instance
withdrawn behavior	90	4	48
bad attitudes	13	5	141
inability to control anger when provoked	5	8	404

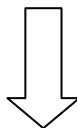
*Total number of survey, focus group, and assessment responses that fit into this item category.

**"Instance": The identifying code given to survey, focus group and assessment responses that are listed for each item category.



Item Categories List Combined from Each Researcher with Number of Responses			
Item Category	Graduate Researcher Count	Undergraduate Researcher Count	Difference
withdrawn/stays to self/isolation/stays by self	122	133	-11
crying/tears	55	45	10
not happy/happy/never see express joy	50	71	-21

Note: Large discrepancies (11 or more different) highlighted.



Example of Resolving Large Discrepancies for “Not Happy”

Graduate Researcher Item Category with Responses

Item Category	1 st Instance	2 nd Instance	3 rd Instance
Not happy /happy/ never expresses joy	490	491	495
Sadness/distress	168	244	268

Undergraduate Researcher Item Category with Responses

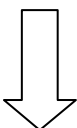
Item Category	1 st Instance	2 nd Instance	3 rd Instance
Not happy /happy/ never expresses joy	168	244	490

Individual Item Responses

Source*	Item
168	Anxiety or sadness
244	Seemed to be sad
268	Sad, depressed
490	Outgoing, happy (most of the time)*
491	Generally happy
495	Happy

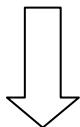
*Items include responses that could be reverse scored.

- In this instance, the undergraduate researcher included responses such as “sad” under the item category of “not happy” (see items 168 and 244). Since “sad” and “not happy” are not synonymous, responses related to “sad” were listed under a separate item category.
- For all item categories with large discrepancies, each response item was read to assure it was placed in the appropriate item category.



Example of Item Categories Deleted for Being Not Concrete or Observable for the Internalizing Construct

Item Categories Deleted
depression
lack confidence
self-esteem/self-concept/lacks self-worth/self-image



Example of Selecting Most Frequent Six Item Categories for Internalizing*			
Item Categories	Graduate Researcher Count	Undergraduate Researcher Count	Difference
withdrawn/stays to self/isolation/stays by self/quickly joins groups or activities/pull into selves/play alone/loner behavior/alooof/shy/difficut to engage/disengaged/not willing to put self out/doesn't enjoy being with other children/avoidance	122	131	-9
crying/tears	55	45	10
not happy/happy/never see express joy/expresses joy and accomplishment	50	55	-5
anxiety/nervous/high-strung/tense/nervous or clingy in new situations/nervous over tests/worry/worries what other children think	31	28	3
sadness/distress/sullen/despondent/writes sad stories/hopeless	28	19	9
self-inflicted pain/harm/cutting/banging head/hitting self/masochism/threatening to hurt self/self-destructive/suicidal	26	19	7

*Most frequent item categories refers to item categories that had the most number of individual items coded into the item category.

Appendix J: Summary of Literature Review Results by Construct

Results of Literature Review on Attention Problems

Research	Attention Deficit Hyperactivity Disorder comorbid with conduct disorder 30–50% of cases; with mood disorder 15–75% of cases; with anxiety disorders 25% of cases. ^a “Developmental, behavioral, or emotional disorders [developmental language disorders, mental retardation, learning disorders and other DSM-IV disorders] may mimic ADHD and lead to misdiagnosis unless a careful history, physical examination, developmental history, and supportive diagnostic testing are used to assess for them.” ^b
Prevalence	4.1% of children ages 4–8 and 9.7% of children ages 9–12 diagnosed with ADHD. ^c
Clinical or educational definitions	<i>Diagnostic and Statistical Manual of Mental Disorders-IV TR</i> (DSM-IV TR) defines ADHD, which has attention as a primary characteristic. ^d Besides ADHD, dysthymic disorder, generalized anxiety disorder, major depressive episodes, and manic or hypomanic episodes all include at least one symptom which relates to the individual’s ability to think, attend, or concentrate. ^e
Current measures of construct	Achenbach System of Empirically Based Assessment (ASEBA) ^f ; Behavior Assessment System for Children, second edition (BASC-2) ^g
Include construct in screener?	Yes

Note. ^aBiederman, Newcorn, and Sprich (1991); ^bKube, et al., (2002, p. 464); ^cCenters for Disease Control and Prevention (2005); ^dAmerican Psychiatric Association (2000); ^eFirst and Tasman (2004); ^fAchenbach and Rescorla (2001); ^gReynolds and Kamphaus, (2004)

Results of Literature Review on Aggression

Research	<p>“Many youths with a diagnosable disorder (particularly conduct disorders) are at increased risk of aggressive behavior (Connor, 2002).”^a Aggressive behaviors more noticeable and less acceptable as child enters school.⁵</p> <p>Aggressive third grade girls more influential, but less liked by classmates.^b Longitudinal study of urban boys and girls found highly aggressive and disruptive children more likely to be diagnosed with antisocial personality disorder and to be arrested for a violent offense.^c</p>
Prevalence	<p>In urban sample, teachers rated 9% of girls in mainstream classroom as chronically highly aggressive-disruptive and 67% low moderate aggressive-disruptive.^c In urban sample, teachers rated 9% of boys as chronic high levels of aggression, 53% had moderate levels of aggression, 7% had increasing levels of aggression, and 32% had low levels of aggression.^d According to school administrators’ perceptions, aggression is increasing in the schools with 29% of school and treatment facility administrators reporting 10 or more incidences of aggression during their first year and 66% reporting it during their most current year.^e Study of Canadian students reported that 29% of students had reported bullying at least one or two times in the past six weeks, while six percent reported bullying more than that; a larger percentage of students reported being bullied once or twice and more than once or twice (38% and 15%, respectively).^f Aggression may increase the risk of these students for developing emotional and behavioral disorders.^g</p>
Clinical or educational definitions	<p>Study categorized aggression into five types: provoked physical aggression, outburst aggression, unprovoked physical aggression, verbal aggression, indirect aggression.^h Researcher categorized as reactive and proactive aggression.^e Relational aggression: Achieving goals by or having the goal of damaging the target’s relationships with others, which may be accomplished by exclusion, withdrawal of friendship, or harmful gossip.ⁱ Conduct disorder and oppositional defiant disorder, as listed in the DSM-IV TR include aggressive symptoms such as fighting, bullying, being physically cruel, noncompliance, stealing, deliberately causing damage to property, and using a dangerous weapon.^j Federal definition of the emotional disturbance classification does not include aggression.^k</p>
Current measures of construct	<p>ASEBA^l; BASC-2^m; Systematic Screening for Behavior Disorders (SSBD)ⁿ; School Social Behavior Scales(SSBS)^o.</p>
Include construct in screener?	<p>Yes</p>

Note. ^aFurlong, Morrison, and Jimerson (2004, p. 243); ^bEstell, Farmer, Pearl, Van Acker, and Rodkin (2008); ^cSchaeffer, Petras, Ialongo, Masyn, Hubbard, Poduska, and Kellam, (2006); ^dSchaeffer, Petras, Ialongo, Poduska, and Kellam (2003); ^eMcAdams (2002); ^fO’Connell, et al. (1997); ^gKaufman (1999); ^hLancelotta and Vaughn (1989); ⁱCrick and Grotpeter (1995); ^jFirst and Tasman (2004); ^kU.S. Department of Education (1998); ^lAchenbach and Rescorla (2001); ^mReynolds and Kamphaus, (2004); ⁿWalker and Severson (1992); ^oMerrell (2002) as described by Assessment Intervention Resources (n.d.)

Results of Literature Review on Internalizing Behaviors

Research	<p>Review of longitudinal studies concluded that although many students recovered without intervention, “for a significant minority of children and adolescents...disorders are persistent.”^a Internalizing problems were the second best single predictor of problems with reading achievement.^b First graders were shown to be seven times more likely to have low reading achievement when their anxiety scores were elevated four months earlier.^c Students with elevated depression scores for the first three of four years, had lower grades for all four years.^d First graders demonstrated moderately stable levels of anxiety over a four month period.^e Children ages 8 to 16 years in a private, residential school who experienced the loss of a parent through death, divorce, or separation and scored high on the Children’s Depression Inventory (CDI), rated higher on the CDI, an anxiety measure, and internalizing symptom scale (as rated by caregivers) for the first three of four years when compared to students with lower initial scores on the CDI.^d In a five-year study with re-assessment every six months, 40% of third and fourth grade students who scored high on depressive symptoms initially also scored high in depressive symptoms some time during the next two years.^e For girls, more internalizing characteristics at age 7, including shyness or reserve and being socially compliant, and at age 11 including self-control, small likelihood of expressing irritability, and being self-controlled, were precursors to higher depressive symptoms at age 18.^f</p>
Prevalence	<p>Reviewing other studies, 4–6% of children have depression and 3–4% have anxiety.^g Stratified random sample of school children ages 8, 12, and 17 years in one town found that 13.8% of children had an anxiety disorder according to parental report and 21% of children had an anxiety disorder according to child report.^h Researchers in the field feel that the majority of special education classifications for emotional disturbance are based on externalizing rather than internalizing symptoms.ⁱ Teachers may overlook internalizing symptoms because (1) symptoms do not distress others, (2) symptoms come with qualities valued by teachers (she gave the examples of scholastic orientation and meticulousness), (3) girls tend to be under researched and these symptoms are more prevalent in girls, (4) the symptoms seem easier to treat than externalizing symptoms, (5) symptoms can be more difficult to detect at their early stages,^j (6) teachers may find it aversive to work with these students^k, (7) students don't fit the prototypical student at-risk for EBD, (8) students may get along well with teachers while having social difficulties with their peers^l, and (9) symptoms may be difficult for non-professionals to detect.^m</p> <p>Many students referred for externalizing behaviors also have internalizing behaviors.ⁿ In one study, students classified with a behavior disorder in the K–12 grades were three times as likely as their non-disabled peers to be rated by teachers as depressed, and behavior disordered students were rated as having significantly higher levels of anxiety than their non-disabled peers.^o</p>
Clinical or educational definitions	<p>Two of the five criteria for classification as emotionally disturbed in federal law address internalizing symptoms: “a general pervasive mood of unhappiness or depression [or]... a tendency to develop physical symptoms or fears associated with personal or school problems.”^p Federal definition matches with symptoms of anxiety and depression, withdrawn and depressed, and somatic complaints as assessed on the ASEBA.^q Anxiety and depression, withdrawn and depressed, and somatic complaints are often called internalizing behavior problems¹¹ and are associated with symptoms of depression and anxiety in the DSM-IV TR.^r</p>

Current measures of construct	Achenbach System of Empirically Based Assessment (ASEBA; anxious/depressed subscale, withdrawn/depressed subscale, and somatic complaints subscale) ^s ; Behavior Assessment System for Children, second edition (BASC-2; internalizing composite score with subscales in anxiety, depression, and somatization) ^t ; Children’s Depression Inventory (subscales include negative mood, interpersonal problems, ineffectiveness, anhedonia, and negative self-esteem) ^u ; Internalizing Symptoms Scale for Children (ISSC; subscales include negative affect/general distress and positive affect). ^v
Include construct in screeener?	Yes

Note. ^aOllendick and King (1994, p.923); ^bHorn and Packard (1985); ^cIalongo, Edelsohn, Werthamer-Larsson, Crockett, and Kellam (1994); ^dMattison, Hanford, Kales, Goodman, and McLaughlin (1990); ^eNolen-Hoeksema, Girgus, and Seligman (1992); ^fBlock, Gjerde, and Block (1991); ^gMerrell (2001); ^hKashani and Orvaschel (1990); ⁱAchenbach and McConaughy (1992); ^jKendziora (2004); ^kMorris (1980–91); ^lWalker and Severson (1992); ^mReynolds (1992); ⁿMcConaughy and Skiba (1993); ^oCullinan, et al. (1984); ^pU.S. Department of Education (1998); ^qCullinan (2004); ^rAmerican Psychiatric Association (2000); ^sAchenbach and Rescorla (2001); ^tReynolds and Kamphaus, (2004); ^uKovacs and Devlin (1998) as reviewed by Carlson (n.d.); ^vMerrell, (1998) as reviewed by Christopher, R. (n.d.)

Results of Literature Review on Academic Problems

Research	Meta-analysis on students with emotional and behavioral disorders found an effect size of -.69 on academic achievement when compared to non-disabled students, they were generally in the 25 th percentile of achievement, and that 75% of them scored below the mean achievement scores of the comparison students. ^a Academic deficits for children with EBD ages 5 to 21. ^b In one study, students with EBD scored lower on standardized academic tests than peers. ^c Internalizing behavior problems did not significantly affect academic scores when analyzed using a multiple regression analysis. ^c
Prevalence	Emotionally and behaviorally disordered students were shown to have academic deficits in core areas of academic content (arithmetic, reading, writing, and related language skills). ^{a, b, c, d, e} Teachers also tend to rate students low on academic competence. ^{f, g}
Clinical or educational definitions	Academics is a commonly recognized area of difficulty for students with EBD. ^h Deficient academic performance is to be expected as it is part of the definition of a behavior disorder in federal law. ^a
Current measures of construct	Achenbach System of Empirically Based Assessment (ASEBA; subscale of academic performance) ⁱ ; Behavior Assessment System for Children, second edition (BASC-2; subscales of learning problems and study skills) ^j ; Systematic Screening for Behavior Disorders (observation of academic engaged time) ^k ; Social Skills Rating System (subscale of academic competence) ^l ; School Social Behavior Scales (subscale of academic behavior) ^m ; and the Scale for Assessing Emotional Disturbance (subscale of inability to learn). ⁿ
Include construct in screener?	Yes

Note. ^a7. Reid, et al. (2004); ^b8. Trout, et al. (2003); ^c9. Nelson, et al. (2004); ^d10. Epstein, et al. (1989); ^e11. Williams, et al., 1990; ^f12. Cullinan, et al. (2003); ^g13. Lambros, et al. (1998); ^h14. Kauffman (2005); ⁱ1. Achenbach and Rescorla (2001); ^j2. Reynolds and Kamphaus, (2004); ^k3. Walker and Severson (1992); ^l4. Gresham and Elliott (1990) as reviewed by Benes, (n.d.); ^m5. Merrell (2002) as reviewed by Flanagan (n.d.); ⁿ6. Cullinan, Harniss, Epstein, and Ryser (2001) as reviewed by Carr (n.d.)

Results of Literature Review on Peer Relationship Problems

Research	<p>Students with EBD may be influenced by a lack of positive peer relationships that support social development as well as associating with peer groups that encourage inappropriate behaviors.^a Social acceptance appears to be facilitated by prosocial behaviors, such as, being considerate, helping, fitting with group norms, while social rejection is related to rule violation, hyperactivity, disruption, aggression.^a Behavior problems may “impair school readiness ... by interfering with the development of positive, productive, peer relations.”^b In one study, twenty-two behavior disordered students (second to sixth graders) were found to be less accepted, more tolerated, and more rejected by a non-disabled population than matched peers.^c Students categorized as internalizers or externalizers were found to be less preferred by their classmates to play with and work with, and did not do well when peers rated the three classmates they liked most and liked least.^d In another study, sociometric status of disabled students was lower than for their non-disabled peers, with EBD students receiving the most least-liked nominations.^e Second, fourth, and sixth grade students were less accepting of aggressive-antisocial behavior than academic-disruptive and anxious-depressed behaviors.^f Risk for EBD is related to higher rates of peer rejection.^g Generally, “...Students with disabilities who experience alienation, anger, and rejection in peer relationships are more likely to experience emotional and behavioral problems.”^h Girls rated as “rejected” have been reported as having higher self reports of social distress than average girls, and higher teacher-reported levels of depression than average or popular girls—although not reaching clinical levels.ⁱ A sample of eight year old Italian students found that rejected children had more conduct problems and neglected children had more somatization problems. It is important to note that the neglected group was small (n = 11).^j Some students who reportedly had high to moderate levels of aggressive-disruptive behavior have been found to have higher parental ratings of affective problems and emotional dysregulation when they perceive themselves as having low social standing.^k Students with EBD are often associated with a peer cluster, rather than being completely isolated.^{l,m} Deviant peer pressure and associates are linked to more disruptive school behaviors in 10 and 12 year olds.ⁿ One study found that aggression and withdrawal may be more acceptable to peers when there are more peers exhibiting these types of behaviors in the classroom, although inattention and prosocial behaviors affected student status regardless of the classroom type.^o</p>
Prevalence	<p>A study found that 35.4% of children ages 5–12 who were receiving services for EBD in special education, scored at borderline or clinical levels on the social problems subscale of the Achenbach System of Empirically Based Assessment’s Teacher Report Form.^p A national survey found that 27.2% of parents with children classified as emotionally disturbed (ED) rated their child as low in social skills, compared to 11.6% of parents of children with other disabilities, and 6% of parents with ED students rated their child as high in social skills, compared to about 20% of parents of children with other disabilities.^q Teachers ratings of students aged 6–11 on the Behavior Problem Checklist reveal that students with a behavior disorder are associated with social incompetence and social maladjustment (e.g., social withdrawal, aloofness, excessive daydreaming, lack of play skills, poor choice in friend, loyalty to delinquent friends).^r Teachers have also rated students categorized as having internalizing or externalizing issues as exhibiting fewer social skills than peers.^{d, g}</p>
Clinical or	<p>According to federal law, an emotional disturbance can be manifest by an inability to get along with peers and teachers.^s</p>

Educational Definitions	Problems with peer interactions or sociometric status have been noted for children with depressive symptoms ^t , anxiety ^u , and conduct disorder. ^u
Current Measures of Construct	Achenbach System of Empirically Based Assessment (ASEBA) ^v ; Behavior Assessment System for Children, second edition (BASC-2) ^w ; School Social Behavior Scales ^x ; Social Skills Rating System. ^y
Include Construct in Screener?	Yes

Note. ^aKauffman (2005); ^bKendziora (2004, p 332); ^cSabornie (1987); ^dGresham, et al. (1999); ^eSale and Carey (1995); ^fWaas and Graczyk (1999); ^gLambros, et al. (1998); ^hMurray and Greenberg (2006, 228); ⁱBell-Dolan et al. (1995); ^jTani and Schneider (1997); ^kPardini, et al. (2006); ^lFarmer and Hollowell, (1994); ^mFarmer and Farmer (2006); ⁿEamon and Altshuler (2004); ^oStormshak, et al. (1999); ^pNelson, et al. (2003); ^qWagner, Kutash, Duchnowski, Epstein, and Sumi (2005); ^rEpstein, et al. (1985); ^sU.S. Department of Education (1998); ^tRudolph, Hammen, and Burge, (1994); ^uStrauss, Lahey, Frick, Frame, and Hynd, (1988); ^vAchenbach and Rescorla (2001); ^wReynolds and Kamphaus, (2004); ^xMerrell (2002) as described by Assessment Intervention Resources (n.d.); ^yGresham and Elliott (1990) as reviewed by Benes, (n.d.)

Results of Literature Review on School Adjustment Problems

Research	Not looked for, see explanation under “Include Construct in Screener?”
Prevalence	Not looked for, see explanation under “Include Construct in Screener?”
Clinical or Educational Definitions	Defined classroom adjustment by students’ report card grades for social development and positive work habits. ^a Constructs such as peer relationships, behavioral competence, problem-solving, learning problems, and externalizing and internalizing behaviors are indicators of school adjustment. ^{b, c}
Current Measures of Construct	A review of the Walker-McConnell Scale of Social Competence and School Adjustment found the instrument to have insufficient support for the validation of the school adjustment subscale. ^d
Include Construct in Screener?	No. Since the current research literature does not appear to have a uniform conceptualization of school adjustment that is independent from the constructs already to be included in this screening instrument, a separate construct of “school adjustment” will not be included in the screener.

Note. ^aBaker (2006); ^bDeStefano, et al. (1977); ^cPianta and Steinberg (1992); ^dWalker, and McConnell (1995) as reviewed by Constantine (n.d.)

Results of Literature Review on Noncompliance and Disruption

Research	See explanation in “Include Construct in Screener?”
Prevalence	Not looked for, see explanation in “Include Construct in Screener?”
Clinical or Educational Definitions	Not looked for, see explanation in “Include Construct in Screener?”
Current Measures of Construct	Not looked for, see explanation in “Include Construct in Screener?”
Include Construct in Screener?	No. A search for research articles specifically comparing students with EBD to students who do not have EBD in the areas of noncompliance or disruption was unsuccessful. Most studies have grouped measurements of these behaviors with other externalizing or antisocial behaviors. A review of antisocial behaviors, in general, has therefore been added to this literature review.

Results of Literature Review on Antisocial Behavior

Research	<p>Antisocial behaviors can be defined as those “that reflect a failure of the individual to conform his or her behavior to the expectations of some authority figure (e.g., parent or teacher), to societal norms, or to respect the rights of other people. The behaviors can range from mild conflicts with authority figures (e.g., oppositionality, noncompliance, defiance, argumentativeness) to major violations of societal norms (e.g., truancy, running away from home) to serious violations of the rights of others (e.g., assault, rape, vandalism, fire setting, stealing).”^a Antisocial behaviors are cause for concern when they continue past the time same-age peers have ended the behavior, if they are highly impairing, or if they harm others or their property.^b Students with antisocial characteristics “put extreme pressures on management and instructional skills of classroom teachers and disrupt the instructional process for others students.”^c Antisocial tendencies may particularly effect level of competency in “social skills, particularly those that support a successful classroom adjustment (e.g., cooperates with others, is personally organized, and listens carefully to instructions).”^c Kindergarten boys rated as disruptive by teachers found were more likely to be on a trajectory for a high level of antisocial behavior in adolescence if no intervention was provided.^d Reports of dishonesty and troublesomeness at eight to ten years were linked to later juvenile offenders in a working class neighborhood in England.^e Children rated as having high levels of antisocial behavior between 5 and 11 years were more likely to have participated in risky and early sexual practices by age 21; these effects being moderated by relationships with parents and deviant peer groups.^f Delinquency was associated with low self-esteem in 11–14 year olds (although the authors noted research with the opposite conclusion).^g Children identified as antisocial by fifth grade tend to continue to have a high level of antisocial behaviors.^h Levels of aggression are about as stable as IQ scores over ten years and early antisocial behavior in elementary school is the best predictor of adolescent delinquency, and if not changed by the end of third grade, it can be seen as a chronic problem that will have to be managed rather than cured.^c A study of the next younger siblings of antisocial males found that association with these older brothers increased the younger sibling’s risk for behavior problems in adolescence.^l In a comprehensive follow-up on 477 twenty-six year old males (divided into five groups based on antisocial status) in New Zealand, it was found that young men who had an early and persistent pattern of antisocial behavior tended to have more drug and violent offenses, get into more fights, have more diagnosable drug dependence, higher lifetime diagnosis of posttraumatic stress disorder, have more violations for driving while intoxicated, reported more partner abuse, child abuse, non-completion of high school, use of public benefits, having an illegal income, more work problems, and fathering more children without contributing to childcare.^j</p>
Prevalence	<p>In a study of children receiving services for EBD in special education, 30.2% of children ages 5–12 scored at borderline or clinical levels on the delinquent or rule-breaking subscale of the Achenbach System of Empirically Based Assessment’s Teacher Report Form.^k A study of children and youth in San Diego, California found that of those being served in special education, 34.3% could be diagnosed with conduct disorder and 22.6% with oppositional defiant disorder, disorders typically associated with antisocial behaviors.^l A longitudinal study of a community sample in New Zealand found that about 12% of their cohort displayed antisocial behaviors in childhood, about half of those persisted at a high level into</p>

Clinical or Educational Definitions	<p>adolescence.^m In a longitudinal study, about 28% of the kindergarten boys were rated as disruptive by their teachers and were considered as at risk for antisocial behavior patterns.ⁿ</p> <p>Antisocial behaviors align with the symptoms described in the DSM-IV TR diagnoses of oppositional defiant disorder and conduct disorder. Symptoms listed for these disorders include problems with temper and anger, arguing with adults, noncompliance, annoying or being easily annoyed, blaming others, as aggressive behavior towards people or animals, property damage/loss, theft/lying, and major rule violations.^o The creators of The Scales for Assessing Emotional Disturbance characterized antisocial behavior under the federal definition criteria ‘inappropriate behavior’ and the scale includes items related to dishonesty, defiance, disrespect, destructiveness, not considering consequences, and harming others; such items are differentiated from the items in the socially maladjusted scale which contains items related to illegal activities.^p Professionals have noted that some consider antisocial behaviors to be synonymous with social maladjustment, which is excluded from the category of emotional disturbance.^q A meta-analysis of problem behaviors revealed two dimensions along which problem behaviors may fall, covert-overt behaviors and destructive-nondestructive. Neither covert nor nondestructive behaviors are usually considered aggressive.^r Three possible pathways to delinquent behavior include an authority conflict route, overt disruptive behavior route, and covert disruptive behavior route; each of the routes progresses through three stages of severity, with those persisting in antisocial behaviors typically beginning with the least malicious behaviors and those experimenting in such behaviors trying the more malicious behaviors first.^s Routes for pathways to non-aggressive delinquency have been described in terms of ASEBA items by researchers.^t</p>
Current Measures of Construct	<p>Achenbach System of Empirically Based Assessment (ASEBA; rule-breaking subscale)^u; Behavior Assessment System for Children, second edition (BASC-2; conduct problems subscale)^v; School Social Behavior Scales^w which was found to have a 3-factor structure of antisocial behavior including aggressive and overt rule-breaking behavior, antagonizing/annoying behaviors (hostile-irritable factor), and to disruptive/demanding behaviors.^x</p>
Include Construct in Screener?	Yes

Note. ^aFrick (1998), p. 9); ^bLoeber, Farrington, Stouthamer-Loeber, and Van Kammen (1998); ^cWalker, Ramsey, and Gresham (2004, pp. 18–19); ^dLaCourse, Cote, Nagin, Vitaro, Brendgen, and Tremblay (2002); ^eFarrington (1996); ^fRamrakha, Bell, Paul, Dickson, Moffitt, and Caspi (2007); ^gDonnellan, Trzesniewski, Robins, Moffitt, and Caspi (2005); ^hWalker, Stieber, and Bullis (1997); ⁱSnyder, Bank, and Burraston (2005); ^jMoffitt, Caspi, Harrington, and Milne (2002); ^kNelson, et al. (2003); ^lGarland, Hough, McCabe, Yeh, Wood, and Aarons (2001); ^mMoffitt, et al. (1996); ⁿLaCourse, et al. (2002); ^oAmerican Psychiatric Association (2000); ^pCullinan, Harniss, Epstein, and Ryser (2001); ^qOlympia, et al. (2004); ^rFrick, et al. (1993); ^sLoeber, et al. (1997); ^tTolan et al. (2000); ^uAchenbach and Rescorla (2001); ^vReynolds and Kamphaus, (2004); ^wMerrell (2002); ^xMerrell (1993)

Appendix K: Number of Item Categories Independently Listed by Graduate and Undergraduate
 Researcher for Each A Priori Construct

A Priori Construct	Number of Item Categories	
	Graduate Researcher	Undergraduate Researcher
Attention	40	34
Hyperactivity	13	5
Aggression	66	29
Internalizing Behavior	128	68
Academics	64	43
Peer relationship problems	75	44
Antisocial Behavior	119	80
Other	112	99
Total	617	402

Appendix L: Number of Item Categories by Construct After Rewording and Condensing Item
Categories from Both Researchers

A Priori Construct	Number of Item Categories	Number of Large Discrepancies in Each Category*
Attention	22	1
Hyperactivity	7	0
Aggression	24	1
Internalizing Behavior	52	5
Academics	36	8
Peer relationship problems	42	4
Antisocial Behavior	60	7
Other	60	0
Total	303	26

*Large discrepancies means that one of the researchers listed more than 10 items than the other researcher for that category.

Appendix M: Number of Item Categories Left After Resolving Discrepancies and Deleting Non-
Concrete and Non-Observable Item Categories

A Priori Construct	Number of Item Categories
Attention	16
Hyperactivity	3
Aggression	14
Internalizing Behavior	39
Academics	26
Peer relationship problems	42
Antisocial Behavior	32
Other	35
Total	208

Appendix N: Final Number of Item Categories in Each A Priori Construct

A Priori Construct	Number of Item Categories
Attention	6
Hyperactivity	3
Aggression	6
Internalizing Behavior	6
Academics	7
Peer relationship problems	6
Antisocial Behavior	8
Total	42
