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# Early Screening Project (ESP): Identifying Preschool Children with Adjustment Problems

Edward G. Feil  
Herbert H. Severson  
Oregon Research Institute

Hill M. Walker  
University of Oregon

With the enactment of the P.L. 99-457 amendments to IDEA, two major changes occurred in the field of special education. First, all children needing special education and related services, from birth to 21 years, are now eligible for federal and state funding for special education and related services. Second, P.L. 99-457 further defined and delineated the early identification and assessment requirements with a mandate to initiate a comprehensive child-find system. "The child find system must include the policies and procedures that the State will follow to ensure that ... *an effective method is developed and implemented to determine which children are receiving needed services and which children are not receiving those services*" (Federal Register, v54(119), p. 26319, §303.321, emphasis added). Each state has begun to implement child-find systems for

young children needing special education and related services, yet with limited tools with which to complete the child-find task (Martin, 1986; Beare & Lynch, 1986). Presently, local providers of early childhood special education report that their implementation of 99-457 has resulted in an increase in the numbers of children eligible for services. Concurrent with increasing mandates, state funds for education diminish. In Oregon for example, the effect of property tax limitation (i.e., Measure 5) has reduced school funding by up to 16% (Hill, 1993).

Research has found that there are many similarities between children across handicapping conditions. Teacher ratings distinguished between clinical and non-clinical groups, but did not distinguish between groups of children with (a) Conduct Disorder, (b) Attention-Deficit Disorder, and (c) both Conduct Disorder and Attention-Deficit Disorder (Schaughency & Rothlind, 1991). Gresham, Elliot, and Black (1987) studied teacher rating of social skills between groups of elementary children with handicaps (i.e., Learning Disabled, Behavior Disordered, and Mentally Retarded) and non-handicapped children. Although they found that there was no difference between types of special education eligibility categories, they did find a significant difference between children with and without handicaps. This research shows that teachers' assessment of social factors can accurately distinguish those children with

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adjustment problems (i.e., handicapping conditions) and those without.

National surveys indicate over half of all assessment requests from teachers are for emotional/behavior problems (Council for Children with Behavior Disorders, 1987). Numerous research findings have reported correlations between school adjustment problems in academic and peer relation areas with behavior problems. For instance, children with behavior problems (a) systematically scored below the norm on IQ tests and achievement tests, (b) spend less "time on-task" than typical children, (c) exhibit more anti-social behavior toward peers, and (d) are held in lower regard by their peers (Bower, 1981; Campbell, 1990; Eisert, Walker, Severson, & Block, 1989; Kazdin, 1987; Kohn, 1977; Patterson, DeBaryshe, & Ramsey, 1989).

Beare and Lynch (1986) found a "substantial" number of children in preschool settings who displayed externalizing and internalizing problem behaviors indicative of adjustment problems and who were not receiving special education services. They suggested that screening in natural early childhood environments, such as preschools, is more effective in finding eligible children than present idiosyncratic procedures in public settings, such as clinics, elementary schools, and shopping centers. Presently, there are few cost-effective methods for screening for behavior problems in natural early childhood settings. Additionally, traditional developmental screening tests often overlook young children with mild to moderate learning or behavioral problems (Beare & Lynch, 1986).

## How and When to Screen and Intervene

In order to meet the needs of practitioners, an effective child-find screening system should be accurate, proactive, and cost-effective. Martin's (1986) review of the literature on the assessment of the social and emotional functioning of preschool children shows that some technically and financially feasible screening instruments are available, but all require a lengthy administration if all children are screened. Traditional methods of assessment, such as interviewing, are unreliable due to the preschool child's restricted ability to comprehend assessment cues and demands. The most feasible instruments are written rating scales completed by either the teacher or the parent describing the child's behavior. Martin reported that for most preschool-age appropriate written rating scales, psychometric reliability and validity characteristics were inversely related to their ease of administration.

If children were screened with a technically adequate written rating scale, each teacher would have to complete an individual rating form on each child. The

shortest administration would be about 10 to 15 minutes per child. Therefore, a classroom of 20 children would require five hours of a teacher's time. Since this is impractical, most rating scales are utilized on a reactive rather than a proactive basis. That is, action is taken only after a child is referred by the teacher (Walker & Severson, 1990). Prevention is predicated on a proactive strategy: an early intervention costs less and can prevent an escalation in behavior problems. Compensatory programs, such as Head Start, follow such a proactive model. The early identification model funnels energy toward prevention instead of more costly adolescent and adult remediation. The traditional teacher referral process depends on the idiosyncratic behavioral tolerance of the individual teacher. Teacher expectations and standards vary considerably (Walker & Rankin, 1983). Herr, Algozzine, and Eaves (1976) studied teacher-trainees and confirmed that teachers become increasingly tolerant of "disturbing" behavior with time and exposure.

The high technical adequacy of many rating scales demonstrates that teachers have a wealth of normative information regarding children's development and skills across domains. How can we take advantage of teacher's normative knowledge base with cost-effective and systematic screening procedures? Additionally, since these are important decisions that affect a student's school program, assessment should not be made on the basis of one developmental assessment or screening device, but also include direct observations of the child's behavior in the context of working with peers. Information gained in the assessment could also be used to plan curriculum, identify children with special needs, communicate with parents, and evaluate program effectiveness (Bredenkamp, 1987). These demands require that the assessment rely on multiple sources of information.

Martin (1986) notes that direct observation is "one of the most valuable assessment methods for the young child", yet is not widely used because the cost is prohibitive. Direct observation, with adequate interrater reliability, has the lowest amount of bias of any other assessment method. Martin concludes with the hope that "the future will bring increased sophistication in low-inference assessment... including the direct observation of interactions between young children and significant people ... (in) preschool settings. (p.230)". Even under current limited school budgets, the best assessment practices should also include an accurate and cost-effective observation measure.

Walker and Severson (1990) developed and validated the Systematic Screening for Behavior Disorders (SSBD), a three stage multiple-gating system, for use with elementary age children. Based upon experimental findings that behavior disorder characteristics are

divided into "externalizing" and "internalizing" dimensions, teachers rank order children on these dimensions in Stage One. Stage Two items involve completing behavior checklists and adaptive behavior scales using items trial tested, refined and socially validated as measures of teacher behavioral standards and child behavioral status (Walker & Severson, 1990). Teacher ratings are independently confirmed in the SSBD Stage III using observations of pupil behavior within instructional and playground settings. Overall, the SSBD's percentage of false positives is very small, reported at 0% and 0.5% for externalizing and internalizing criteria respectively (Walker & Severson, 1990). Eisert et al. (1989) confirmed that the Walker/Severson Peer Social Behavior observations were able to discriminate reliably between preschool groups of Externalizers, Internalizers, and Control subjects. The greatest strength of the Walker/Severson SSBD is the gating procedure itself. *An instrument, such as the SSBD, utilizes teachers' expertise and controls for teacher bias with independent reliable observations.*

## The Early Screening Project (ESP)

This research adapted Walker/Severson's SSBD for use with three to five year old children. The preschool adaptation, the Early Screening Project (ESP), assesses both the frequency and intensity of adjustment problems and allows for cost effective screening of problem behaviors in order to aid in early intervention and remediation for preschool-age children. The ESP is a three-stage, multiple-gating procedure to screen for behavior disorders among preschool children aged three to five (see Figure 1).

### Stage I

Stage I was based on teachers' rankings of their students on "externalizing" and "internalizing" behavior dimensions. Teachers were asked to list the five children who best exemplified a description of externalizing characteristics and the five children who best exemplified a description of internalizing characteristics. The two lists were mutually exclusive, so a child could only be put on one list. Then, the teachers ranked the children on each list from most characteristic to least characteristic of the externalizing or internalizing dimension. This procedure was modified from the SSBD procedure because of smaller class sizes typical in preschools. Ten children were ranked on each dimension in SSBD procedures.

### Stage II

Stage II was a behavior checklist consisting of four measures: Critical Events Index Parts A and B (CEI-A and CEI-B, respectively), and Adaptive and Maladaptive Behavior indexes. Stage II of the ESP differed substantially from the Walker/Severson SSBD. The

SSBD Critical Events Index consisted of 33 occurrence/non-occurrence items. Therefore, a teacher would check an item if a child has exhibited the behavior. Since most preschool children exhibit problem behaviors at one time or another (Campbell, 1990; Paget, 1990), the frequency and intensity of the behaviors were most likely the important discriminative features. Consequently, 17 occurrence/non-occurrence items of the SSBD were converted to frequency ratings. The CEI-A contained 13 occurrence/non-occurrence items and the CEI-B consisted of 17 five-point Likert response scales for sensitivity to frequency and intensity. Items converted to five-point frequency ratings were: steals, set fires, vomits after eating, tantrums, physically assaults an adult, physically aggressive with other children, damages property, has nightmares, exhibits inappropriate sexual behaviors, cries suddenly, physical complaints, ignores teacher warnings, makes lewd gestures, swears, is teased/neglected by peers, is enuretic, and is encopretic.

The Adaptive Behavior Scale contained eight items representing overall prosocial behavior (e.g., cooperation and positive social interactions). Four items were omitted from the SSBD Adaptive Behavior Scale due to their developmental inappropriateness to preschool children regarding cognitive skills or academic work. The Maladaptive Behavior Scale consisted of 10 items representing overall anti- or non-social behavior (e.g., defies teacher requests and creates disturbance).

The items were carefully worded in order to facilitate the completion of ESP by a diverse group of preschool teachers who may have limited experience in assessment. Items regarding academics were omitted because of their inapplicability to most preschool curricula.

### Stage III

Stage III measures were based on direct observations of a child's Structured-Activity Engaged Time (SAET) in the classroom and Social Behavior (SB) in the classroom and on the playground. SAET was a duration recording of the child's attending to a teacher-led, structured-group activity, such as story time or gymnastics. SAET was defined by the observation codes for (a) attending to the teacher, (b) making appropriate motor responses (e.g., following directions), and (c) asking for assistance in an appropriate manner. SB was a record of the quality, level, and distribution of a child's social behavior during free play settings. Anti- or non-social was defined as (a) a *negative* exchange of either verbal or physical interaction, (b) disobeying established classroom rules, (c) tantrumming, and (d) solitary play. The children were each observed for 40 minutes, 10 minutes for Structured-Activity Engaged Time and Social Behavior, respectively, on two occasions. If the total time, per observation type (i.e., SAET

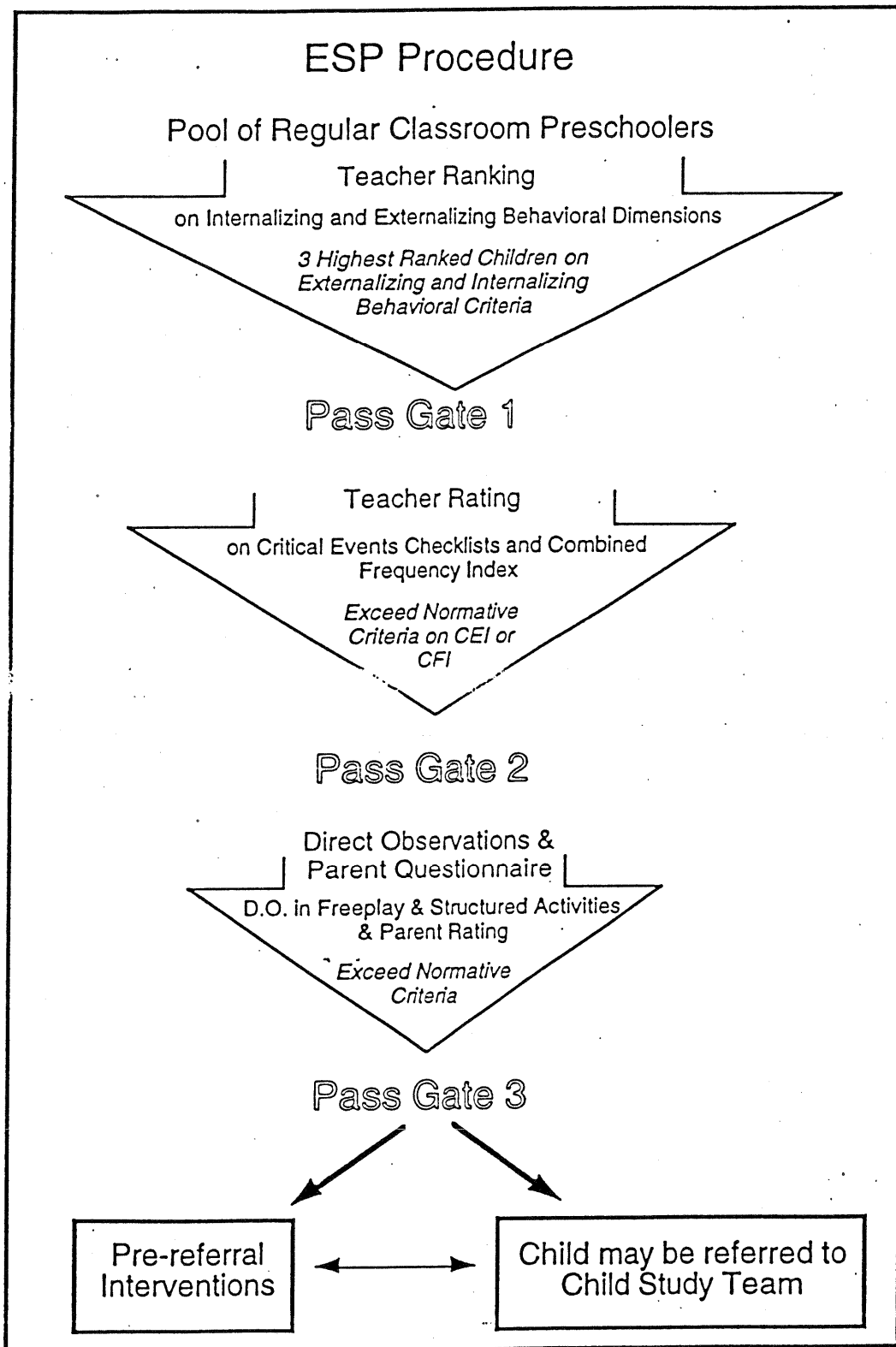


Figure 1. The ESP procedure.

and SB), was under 20 minutes, a third observation was conducted to bring the time up to 20 minutes. In these observation codes, the stopwatch runs when the child exhibits anti- or non-social behavior and was turned off when the child displays pro-social behavior. The stopwatch was restarted when the child exhibits anti- or non-social behavior. The procedure was repeated throughout the recording interval.

### Parent Questionnaire

The parent questionnaire had 12 items divided into three scales: (a) Playing with other children, (b) Getting along with caregivers, and (c) Playing with materials and self care. All items are adapted from the ESP Stage II teacher questionnaires. The first two scales, playing with other children and getting along with caregivers, were stated in positive pro-social behavioral language and the third scale, playing with material and self care, was oriented to more problematic critical behaviors.

### Technical Adequacy of ESP

Beginning in 1991, studies on the ESP were conducted to assess its reliability and validity. These findings have been very promising (Feil & Becker, 1993). The reliability and validity data show strong results. The interrater reliability coefficients of most ESP measures are at least 0.80, which meets Salvia and Ysseldyke (1988) guidelines for a screening instrument. Good psychometric standards were attained despite the difficulties inherent in the assessment of young children (Martin, 1986). Validity studies show consistent high relationships to criterion measures: Conners Teacher Rating Scales (Conners, 1989) and Preschool Behavior Questionnaire (Behar & Stringfield, 1974). Correlations resulted in highly significant coefficients ranging from 0.34 to 0.87, with most above 0.70. The consistency of scores across ESP measures illustrates the potential utility of the screening system, giving evidence that behavior problems may be identified accurately among preschool children.

Furthermore, a discriminant analysis provides a measure of the accuracy of the ESP with specificity and sensitivity coefficients. Specificity and sensitivity are important criteria when choosing an assessment method (Elliot, Busse, & Gresham, 1993). Sensitivity is the percentage of true positives and specificity the true negatives (Schaughency & Rothlind, 1991). Results show good sensitivity (62%) and excellent specificity (94%), leading to accurate assessments with a minimal risk in identifying a child who exhibits developmentally appropriate behavior.

Observational data had lower reliability and validity correlations than the rating measures, but this data should not be discounted as invalid. Rating and observational measures both focus on the target child, yet the ratings also include the bias of the rater and ratee's relationship to the rater (Martin, 1986; Cairns & Green,

1989). Observational measures record the behavior directly with less bias and filtering of information. However, observational measures are sensitive to ecological variables, such as situation-dependent interactions and physical settings. Both ratings and observational measures are important to understand the child within the preschool context. Ratings appear to be more effective predictors of individual differences and observations appear to be more effective in the analysis of interactional regulation and development (Cairns & Green, 1989). Both kinds of data and analysis are important to understand BD with its socially dependent nature. In sum, the ESP has good psychometric characteristics and procedures, making it appropriate by special education standards.

### Utilization of the ESP

This use of gating within a large group setting minimizes teacher and special services consultant time. The gating procedure reduced assessment time up to 16% over other procedures for elementary school children (Walker, Severson, Nicholson, Kehle, Jenson, & Clark, 1993). Walker et. al. (1993) found a very high relationship between time and cost of assessment for Behavior Disorders. It was more efficient and often desirable to conduct a group administration of Stages I and II of the ESP procedure. Stage I and II screening procedures can be completed for an entire preschool in an one and a half hour meeting.

The following are the important guidelines of ESP administration:

1. To conduct a group administration of the ESP Stages I and II, ask teachers to attend an one and a half hour meeting and to bring along their class lists. Give teachers a brief overview and rationale for the ESP, including a discussion of the importance of early identification and screening. It should be emphasized that this screening procedure does not eliminate the normal referral process but is designed to assist the school in the early identification of children who may be having behavior problems that put them at risk.

2. Ask teachers to read the description for internalizing and externalizing behavior disorders. It is best to go over the internalizing and externalizing behavioral descriptions with the teachers; that is, reading aloud each definition and stopping at the end of each section to ask if there are any questions.

3. Once the definitions are made clear, the teachers should complete the Stage I identification and ranking process for externalizers using the standard directions.

4. After all teachers have completed the ranking of children on the externalizing behavior profile, ask them to repeat the process for the internalizing behavior profile.

5. After the teachers have completed the Stage I ranking on both externalizing and internalizing behav-

ioral dimensions, they should be given copies of the Stage Two rating instruments. Give each teacher six copies of the Stage II forms that include the Critical Events Scales (Parts A & B) and the Combined Frequency Indexes for Adaptive and Maladaptive behavior to rate the three highest ranked externalizers and the three highest ranked internalizers. Remind teachers that the Stage II Forms have information which indicates whether the child is a first, second, or third ranked child on internalizing or externalizing lists or non-ranked in Stage I.

6. The ESP administrator should collect the Stage I and II forms and keep them together for each teacher.

7. The forms are scored and compared to cut-off criterion for Stage III direct observations. Once those children are identified, the parent questionnaire and parental notification per IDEA informed consent procedures are sent to the parent(s).

8. Once the consent form is returned, the child is observed on two separate days in structured and free-play settings.

9. After the observational and parent questionnaire data is scored, the results are compared to cut-off criterion for further evaluation.

### Further Assessment and Intervention

Once a child has passed through the gating after direct observations or if the child has high Stage II and parent ratings, further assessment and intervention is warranted. The child's poor adjustment could be due to a variety of sources, such as behavioral problems, activity levels, poor supervision, speech/language delays, or cognitive delays.

The ESP seems to be useful not only in the screening process, but also as a guide for further assessments and interventions. The screening results taken together with other assessment instruments can confirm a preschool-age child's eligibility for special education services under the Emotional/Behavioral Disorder category. *Treatment utility* is the degree to which assessment activities are shown to contribute to beneficial intervention outcomes (Hayes, Nelson, & Jarrett, 1987). The scores derived from the observations can be used with other observations (both quantitative and qualitative), interviews and rating forms to help plan intervention strategies. Structured-Activity Engaged Time gives a description of a child's attention to appropriate norms in structured settings. Social Behavior describes a child's peer and adult interactions during free-play settings. The ESP observational measures can lead to appropriate and effective individualized intervention plans.

During the field testing of the ESP, site coordinators have noted that the screening procedures also function as an educational tool for teachers. Since the training and background of preschool teachers' educa-

tion varies widely, many preschool teachers benefit from the explicit behavioral descriptions contained in the ESP. The specific behaviors of externalizing and internalizing characterizations and critical events checklists give preschool teachers salient indicators for behaviors which could lead to adjustment problems.

Overall, the ESP can be utilized as part of best-practice for early intervention programs screening for school adjustment problems. Preschool programs, facing increasing requirements (e.g., Child-Find), need to maximize their resources (e.g., teacher's knowledge and experience) within a proactive and fair system. The pro-active nature of the ESP provides assessment of adjustment problems for all children in a classroom, not simply those children with externalizing behaviors who have become so noxious that a teacher will refer them for evaluation. The ESP screens for internalizing characteristics (e.g., socially withdrawn) which are frequently overlooked because they do not disrupt classroom activities. We believe that the ESP can minimize time spent and cost of preschool assessments while increasing accuracy over currently used screening instruments.

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