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AUTHOR	Anderson, David W.; Overdorf, Marylynn
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ABSTRACT

This study examined behavioral differences among junior high students enrolled in three special education programs, using the Social-Emotional Dimension Scale (SEDS). The focus of the study was on examining the relationship among measured intelligence, type of placement, and behavior. Subjects were 59 students with learning disabilities or mild mental retardation. Itinerant program students (n=20) received special education services less than 24 percent of the school day, Resource Room Students (n=20) received special education from 25 to 50 percent of the school day, and the Part-Time group (n=19) received such services 51 to 85 percent of the school day. There was a directional trend among the three groups in IQ, with a mean IQ of 99 for Itinerant students, 89 for Resource Room students, and 81 for Part-time students. Overall performance on the SEDS was not found to be significantly related to intelligence. Although there were no significant differences between the Itinerant and Resource Room groups on the SEDS, the Part-Time group was found to be significantly different on several behavioral dimensions and overall performance on the SEDS. Implications of these findings for programming needs are addressed. (Contains 18 references.) (JDD)

BEHAVIORAL VARIATIONS AMONG SPECIAL POPULATIONS

David W. Anderson, Ed.D.
Bethel College
St. Paul, MN

and

Marylynn Overdorf, M.Ed.
Jersey Shore School District
Jersey Shore, PA

RUNNING HEAD: Behavioral variations among special populations

ABSTRACT

The present investigation examined behavioral differences among 7th, 8th, and 9th grade students enrolled in three special education programs using the Social-Emotional Dimension Scale (SEDS) (Hutton & Roberts, 1986). Placement grouping were **Itinerant**, **Resource Room**, and **Part-time**. The focus of the study was on examining the relationship among measured intelligence, type of placement, and behavior. The primary questions addressed were: (1) What is the correlation between intelligence score and behavior as measured by the SEDS? and (2) What differences in behavior are evidenced on the SEDS between the student groups targeted in this study? Overall performance on the SEDS was not found to be significantly related to intelligence. Although there were no significant differences between the **Itinerant** and **Resource Room** groups, the **Part-time** group was found to be significantly different on several behavioral dimensions and overall performance on the SEDS. Implications of these findings for programming needs are addressed. The usefulness of the SEDS in assessing students with learning disabilities is discussed.

Introduction

Determining the appropriate educational placement for students with disabling conditions requires careful attention to the characteristics of each student. Adherence to the guidelines of PL 94-142 necessitates placement in the least restrictive environment that will enable the most appropriate education for the student, based on a proper identification of the student's level of functioning and the consequent delineation of goals and objectives for the student. That is, placement and instructional decisions are not to be made solely on the basis of the student having been labelled mentally retarded, learning disabled, or emotionally/behaviorally disordered. In many school systems, this translates into placement of students with special needs into an itinerant program, a resource room program, or a full or part-time special education classroom--a practice which may, in fact, simply be a substitution of program labels for disability labels.

The decision as to which placement will provide the most appropriate education in the least restrictive environment for any particular student may often be made subjectively, based primarily on the identified academic strengths and weaknesses of that student. Little or no attention may be given to matching behavioral competencies required in the classroom with those of the student. However, maladaptive classroom behaviors of students with learning disabilities and mild retardation continue to be addressed in the literature. The suggestion has

been made that students with learning disabilities may experience considerable social-emotional and behavioral problems in addition to their learning difficulties (Bender, 1989; Bender & Golden, 1989; Vaughn, 1985). For example, students with learning disabilities have been reported to spend less time on task and engage in more frequent interactions with the teacher, to be more distractible, to have difficulty making friends and eliciting positive responses from adults, and to exhibit poorer social competence and behavior problems than their non-handicapped peers (Fellers & Saudergas, 1987; Ritter, 1989a; Rychman, 1981; McConaughy & Ritter, 1986). Peer relationships, coping skills, and work habits are judged to be "keys to success in the mainstream environment" (Fad, 1990, p. 41), but peer relationships is one of several areas of weakness that have been noted by regular classroom teachers. There is concern that maladaptive behaviors of students with mildly handicapping condition can interfere with the learning activities of both the student and his classmates. Given the increased emphasis on integration of handicapped and non-handicapped students emanating from the "regular education initiative," this concern carries great significance.

The Study

The present investigation examined behavioral differences among students enrolled in three special education programs using the Social-Emotional Dimension Scale (SEDS) (Hutton & Roberts, 1986). Two primary issues were addressed: (1)

the correlation between intelligence and behavior, and (2) differences in behavior (evidenced on the SEDS) between the groups of students targeted in this study. Information obtained through this investigation could add to the present knowledge base regarding teachers' perceptions of behavioral deficits of students considered learning disabled and mildly mentally retarded. Behavioral assessment can help determine the appropriateness of classroom placement as well as assist in identifying social-behavioral skills which may need to be addressed in the student's IEP (Trapani, 1990). If the SEDS can discriminate among students in the three placement alternatives considered in this study, routine use of the SEDS may promote more efficient decisions regarding programming and placement recommendations.

Subjects

The subjects for this study were 59 students who had been identified via district and state approved procedures as having learning disabilities or mild mental retardation. The students attended a public junior high school (approximately 700 total enrollment) in a rural area of central Pennsylvania. Students had been assigned to one of three placement alternatives as part of the multidisciplinary team assessment and program development process: **Itinerant** (n = 20), **Resource Room** (n = 20), or **Part-time** (n= 19). Assignment to a particular instructional grouping was made by a multidisciplinary team following assessment with the

Wechsler Intelligence Scale for Children--Revised (Wechsler, 1974), the Tests of Achievement from the Woodcock-Johnson Psychoeducational Battery--Revised (Woodcock & Johnson, 1989), and a measure of adaptive behavior. The alternative learning environments differ in the amount of time students receive special education services. Students being served through the **Itinerant** program receive special education services less than 24% of the school day. Those serviced through the **Resource Room** receive special education from 25% to 50% of the school day. The **Part-time** program was for those students who require special education services 51% to 85% of the school day. Each group spent the remaining portion of their school day integrated into a mainstream (regular) classroom.

As might be expected, there was a directional trend among the three groups in IQ: **Itinerant** > **Resource Room** > **Part-time**, with mean IQs of 99, 89, and 81, respectively. Analysis of variance showed the variation in IQ between the groups to be significant ($F = 11.3$, $p < .001$). Tukey's HSD test revealed that the **Itinerant** group was significantly higher ($p < .05$) than either the **Resource Room** or **Part-time** groups. The latter groups were not found to differ from one another to a significant degree. The **Itinerant** group (13 males; 7 females) ranged in IQ from 76 to 125. The IQ range for the **Resource Room** group (14 males; 6 females) was from 73 to 115. IQs for the **Part-time** group (12 males; 7 females) ranged from 58 to 108.

Instrument

The dependent variable in this study was the measure of the students' behavior, as perceived by their respective teachers, on the **Social-Emotional Dimensions Scale** (Hutton & Roberts, 1986). The **Social-Emotional Dimensions Scale** (SEDS) is a structured, norm-referenced rating scale for use in identifying students who are behaviorally "at risk;" i.e., students whose behavior may interfere with their education and may require special education services. The 32 items upon which the students are rated represent observable behaviors grouped into the following six dimensions:

1. Avoidance of peer interaction (five items)
2. Aggressive interaction (six items)
3. Avoidance of teacher interaction (five items)
4. Inappropriate behavior (five items)
5. Depressive reaction (four items)
6. Physical/fear reaction (seven items)

Each item is rated by the observer as "never or rarely," "occasionally," or "frequently." Raw scores are obtained for each dimension, and the total raw score can be converted into a percentile score or a behavior quotient (mean = 100; standard deviation = 15). A behavior quotient of less than 90 indicates that the student is "at risk."

Hutton and Roberts (1986) report that the SEDS has adequate reliability and validity for use as a screening instrument to identify potential behavior

problems in kindergarten through high school students. Test-retest, internal consistency, and inter-rater reliability measures are reported by the test authors are within acceptable limits for using the SEDS as a screening instrument: coefficient alphas exceed the .80 level, and all reliability coefficients are significant at the .01 level or higher. Content, criterion-related, and construct validity are discussed in the manual. The authors report a highly significant ($p < .001$) correlation of the Walker Problem Identification Checklist (Walker, 1970) and the SEDS ($r = .77$ to .88) with normally achieving and mildly handicapped students.

Research Design

This investigation posed the following hypotheses: (1) There is a positive correlation between IQ and behavior as measured on the SEDS--specifically, the lower the measured intelligence, the greater the degree of behavioral problems. (2) Directional differences will be observed in the degree of behavioral problems among the three groups studied: **Part-time** > **Resource Room** > **Itinerant**.

The independent variables for this study were the students' measured intelligence and instructional placement. Information regarding these variables was obtained from available school records. Measures on the dependent variable (SEDS) used in subsequent analyses were the raw scores for each behavioral dimension and the overall Behavior Quotient. The research called for correlation analyses to determine the relationship between IQ and placement, and an analysis of variance to examine behavioral differences among the three groups of students.

Procedures for Gathering Data

The SEDS rating scales were independently completed by the three special education teachers for each student assigned to their respective instructional setting. The teachers had been with these students for at least one semester prior to completion of the rating scale, affording each teacher ample time to become familiar with the students' typical behavior. After becoming acquainted with the SEDS instrument, the teachers rated each of their students following the instructions provided in the manual. Completed instruments were returned to the researchers for calculation of raw scores for each behavioral dimension and the Behavior Quotient.

Results

Correlation of IQ and BQ: Hypothesis #1 stated there would be a positive correlation between intelligence and behavioral problems as assessed by the SEDS. The obtained correlations of IQ and SEDS dimensions and Behavior Quotient for the total sample are reported in Table 1. The overall Behavior Quotient was not found to be significantly related to intelligence ($r = .219$, $p = .09$). The only dimension score which was significantly correlated with IQ was *Avoidance of Peer Interaction* ($r = -.334$, $p = .01$), suggesting that students with lower IQs tended to avoid interacting with their peers more than students with higher IQs. The same tendency was found for *Avoidance of Teacher Interaction*, although the correlation was not significant ($r = -.236$, $p = .07$).

insert Table 1 about here

Behavioral differences among groups: To test the hypothesis that there would be behavioral differences among the three groups of students, an analysis of variance was performed. Raw scores and standard deviations are given in Table 2 for each group on the six dimensions of the SEDS, along with the mean Behavior Quotient and standard deviation. Higher raw scores on the SEDS dimensions indicates a higher incidence of inappropriate behavior. The SEDS Behavior Quotient is a standard score (mean = 100, standard deviation = 15). Behavior Quotients below 90 are considered "at-risk."

insert Table 2 about here

Table 2 shows a significant difference among the groups for the Behavior Quotient ($F = 17.52$, $p < .001$). To determine exactly where the differences occurred, Tukey's HSD test was performed. No significant difference was found between the **Itinerant** and **Resource Room** groups. However, the Behavior Quotient for the **Part-time** was significantly lower than both the **Itinerant** and the **Resource Room** groups ($p < .05$).

The analysis of variance also showed significant variation among the groups on four of the behavioral dimensions: *Avoidance of Peer Interaction, Aggressive Behavior, Avoidance of Teacher Interaction,* and *Inappropriate Behavior* (see Table 2). Post hoc analysis (Tukey's HSD test) found ratings for the

Part-time group to be significantly different from both the **Itinerant** and **Resource Room** groups, indicating greater problems in *Avoidance of Peer Interaction* ($p < .001$), *Aggressive Interaction* ($p < .05$), and *Avoidance of Teacher Interaction* ($p < .001$). On the *Inappropriate Behavior* dimension, the **Part-time** group differed significantly only from the **Resource Room** group ($p < .01$). No differences were found between the **Resource Room** and **Itinerant** groups on any dimension of the SEDS.

Since there were differences in measured intelligence among the three groups, it was decided to perform an analysis of covariance on the data to control for the effects of intelligence (even though a significant correlation was obtained only between IQ and one dimension of the SEDS). The results showed a continuing main effect for program placement on the SEDS Behavior Quotient even with intelligence factored out ($F = 15.12$, $p < .001$). Tukey's HSD test again indicated that this was explained by the significantly lower ($p < .05$) Behavior Quotient for the **Part-time** group. On the individual dimensions of the SEDS, Tukey's HSD test revealed that teacher ratings for the **Part-time** group indicated significantly more behavioral problems than either the **Itinerant** or **Resource Room** groups on *Avoidance of Peer Interactions* ($p < .01$) and *Avoidance of Teacher Interactions* ($p < .001$). The **Part-time** group also differed significantly from the **Resource Room** group on *Aggressive interaction* ($p < .05$) and *Inappropriate Behavior* ($p < .05$). As before, there were no significant differences

between the **Itinerant** and **Resource Room** groups. As might be expected, significant intercorrelations exist ($r = .28$ to $.64$, $p < .05$ to $.001$) among these dimensions.

Discussion

The present study failed to show a significant correlation between the subjects' measured intelligence and the SEDS Behavioral Quotient, although a tendency for students with lower IQs to avoid interaction with their peers and with teachers was found. As a group, the **Itinerant** students were found to have a significantly higher mean IQ score than either the **Resource Room** or **Part-time** groups and, therefore, apt to show less avoidance-of-interaction behavior. Since the **Itinerant** students are also the group most integrated with regular classroom students and teachers, the question arises whether the differences obtained result from placement experiences and expectations rather than differences in intelligence. Lack of social skills is considered a major factor contributing to failure of students with disabling conditions in the mainstream environment (Fad, 1990; Gresham, 1982; Vaughn, 1985). It is encouraging to note that those students experiencing the most integration (**Itinerant** and **Resource Room** groups) were perceived by their special education teachers as exhibiting fewer behavioral problems that would interfere with their education and acceptance in the regular classroom.

That the students enrolled in **Part-time** programs were viewed by their special education teachers as exhibiting significantly more problems in terms of avoidance of peer and teacher interactions, aggressive interactions, and inappropriate behavior provides a strong argument for addressing social behavior as part of the students' individual education plan. This is important for the successful integration of the students into regular classes and into society. The "avoidance" behaviors examined by the SEDS included physical proximity, verbal responsiveness, and appropriate visual contact. "Aggressive interactions" included verbally and physically aggressive behaviors, annoying or bothering peers or teachers, and lying. "Inappropriate behaviors" highlighted on the SEDS include statements, actions, and feelings not appropriate to the situation or circumstances. The significant correlations found among the dimensions indicates that these behaviors tend to "go together." The types of behavioral problems noted by the teachers in the present study have direct bearing on programming. These results reinforce the recommendation of Downing, Simpson, and Myles (1990) that training in nonacademic skills essential for effectively mainstreaming special education students is necessary.

In this regard, the SEDS may be a useful instrument to assess the behavior of students for whom mainstreaming is a goal. That is, the SEDS may assist in determining whether an individual student is *behaviorally* eligible to be mainstreamed. The results of the study by Bender and Golden (1989) suggested

that the failure of students with learning disabilities may be related to behavioral adaptations to the learning environment rather than simply academic weakness. The SEDS can highlight areas of potential conflict between the social-emotional behavior of the special education student and the expectations of the classroom which will need to be addressed before successful integration with non-handicapped students can occur.

In certain instances, the social/behavioral performance deficit of students with mildly disabling conditions may be intrinsic to the disability. But given the interactive effect of learner, task, and environment (Smith, 1991), it is possible that observed differences in behavior result from the demands of the setting in which the maladaptive behavior occurs rather than from behavioral deficiencies inherent within the student's handicapping condition. Preiser and Taylor (1983), for example, have discussed ways in which the physical setting can facilitate or distract from desirable behaviors. Some special education classrooms could have a depressing or negative influence on behavior because of the amount of time the student spends with one teacher or a certain group of students. Special educators should pay close attention to the effect their classroom environment may have on the development of behavioral skills and how socially equipped their students are becoming to function in a mainstream classroom. If self-esteem is positively related to the degree of integration in regular classes, it is possible that the increased degree of behavioral problems (especially the avoidance-of-interaction

behaviors) among students in the **Part-time** group is attributable to lack of experience or exposure to non-handicapped students. Trapani (1990) referred to the clear connection between failure to learn positive behavior patterns and the lack of opportunity to become sensitive to the needs of others. Further research continues to be needed into the effect of programs on behavioral development.

The present study indirectly suggests that both regular and special education teachers must be prepared to serve a population of students who are experiencing varied difficulties--academically, socially, and behaviorally. Curriculum planning cannot focus solely on the remediation of academics. Pre-service and in-service preparation should equip teachers to handle the full range of instructional responsibilities likely to derive from the nature and needs of the students being served, including social-behavioral prerequisites to mainstreaming. This becomes particularly important since regular classroom teachers have been found to be less tolerant of certain types of problem behaviors than are special educators (Ritter, 1989b). Placement decisions must consider not only the student's learning skills and achievement, but his or her social/behavioral skill development as well so as not to place the student, the teachers, or the philosophy behind integration in jeopardy.

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Table 1

Correlation of Intelligence and Behavioral Dimensions/Quotient

	r	p
SEDS DIMENSIONS:		
Avoidance of Peer Interaction	-.334	.01**
Aggressive Interaction	-.024	.84
Avoidance of Teacher Interaction	-.236	.07
Inappropriate Behavior	-.169	.20
Depressive Reaction	.060	.66
Physical/Fear Reaction	-.028	.82
SEDS BEHAVIOR QUOTIENT:	.219	.09

Table 2

Mean, Standard Deviation, and F-value for SEDS

	GROUP						
	Itinerant n = 20 Mean	(Std)	**Resource** n = 20 Mean	(Std)	**Part-time** n = 19 Mean	(Std)	**F-value** df = 2, 56
SEDS DIMENSIONS:							
Avoidance of Peer Interaction	5.6	(1.57)	5.5	(0.76)	8.4	(3.27)	11.46***
Aggressive Interaction	7.8	(2.14)	7.6	(1.67)	9.6	(3.27)	3.98*
Avoidance of Teacher Interaction	6.4	(2.58)	5.2	(1.40)	9.8	(2.17)	25.33***
Inappropriate Behavior	6.8	(1.67)	5.8	(1.61)	7.8	(2.34)	5.66**
Depressive Reaction	4.7	(1.17)	4.6	(0.88)	5.0	(1.35)	0.47
Physical/Fear Reaction	8.0	(1.43)	8.2	(1.53)	8.4	(1.89)	0.41
SEDS BEHAVIOR QUOTIENT:	101.4	(11.77)	106.0	(8.47)	83.3	(16.47)	17.52***

* $p < .05$
** $p < .01$
*** $p < .001$