

Middle School SSESS Study

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Classroom Observations

Technical Report 10

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Purpose

The purpose of this study was to evaluate school level changes in a variety of general education classroom ecobehavioral variables as they pertain to students with and without disabilities before and three years after the SSESS model was implemented (between the 2001-02 and 2004-05 school year). Categories of variables observed included classroom ecology, teacher behavior, and student behavior.

Research Method and Instrument Description

Students with and without disabilities were observed in general education classes across the school using the EcoBehavioral Assessment System Software (EBASS). EBASS is momentary time sampling software that may be used to observe, assess, and modify classroom instruction (Greenwood, Carta, Kamps, Terry & Delquadri, 1994). Observational data for the study were collected using the Code for Instructional Structure and Student Academic Response – Mainstream Version (MS-CISSAR) of EBASS developed at the Juniper Gardens Children’s Project. MS-CISSAR facilitates the recording of variables related to thirteen factors within the three overall categories of student behaviors, teacher behaviors, and classroom ecology. Data are collected on a laptop computer using a momentary time sampling procedure.

MS-CISSAR was developed and validated for use with elementary and middle school age students (Greenwood et al., 1994). However, there is no evidence or logic that would indicate that this method of ecobehavioral assessment or the broad categories from the MS-CISSAR taxonomy are less relevant for students at the secondary level. Furthermore, this system was particularly well-matched with our research objectives, including the focus on 1) the ecological variables of classroom task, physical arrangement, and instructional grouping, 2) teacher variables, such as behavior, focus, and approval, and 3) student behaviors of academic, task management, and

competing responses. The selection of pertinent variables from the MS-CISSAR taxonomy is routinely reported in the literature (Logan, Bakeman, & Keefe, 1997; Logan & Malone, 1998).

Data collected with MS-CISSAR were designed to reveal student-related patterns over time, not to be aggregated by group. However, the CISSAR instrument has been used by others as a method of aggregating data to reveal group patterns (e.g., Greenwood, 1991; Thurlow et al., 1983; Ysseldyke et al., 1987). When asked about the appropriateness of using EBASS for aggregate purposes, an author of EBASS, Charles Greenwood, responded that it was appropriate to use MS-CISSAR in this way (C.R. Greenwood, personal communication, July 20, 1999).

Two individuals conducted the classroom observations. Observers attended an EBASS training class at the University, where the project was based. Further training occurred using the EBASS Practitioner's Manual and computerized tutorial (Carta et al., 1988). Interobserver agreement was calculated for each of the two observers with the MS-CISSAR Calibration video. Interrater reliability with the expertly coded video ranged from 86 percent to 92 percent.

Prior to student observations in 2002 and 2005 letters describing the project and permission forms were sent home with all students in each school. After forms were returned, a list of consenting students was developed for two categories, students with IEPs and students without IEPs. To increase the number of consenting students with IEPs, parents/guardians of all students with IEPs who had not turned in a consent form (stating either permission or no permission) were called to inquire about consent. A final list of consenting students was then developed. Schedules of all consenting students were obtained, coded, and plotted on a teacher-class grid. Codes indicated student grade and student status regarding IEP/No IEP. All teachers consented to having observations take place in their classes. A draft of an observation schedule was then established.

The selection of classes for observation was based on the class period, the grade level of a class, the class subject, and the inclusion of parental consent for a student with and without an IEP.

An emphasis was placed on conducting an equal number of observations in classes of English,

mathematics, science, social studies, with other classes representing a 5th category. Efforts were made to observe the largest possible number of teachers and students in a variety of classes.

The selection of which students to observe within a classroom was determined by parent consent, classroom being observed, if they had not been observed already, the student was available. From the remaining pool of choices, a selection was made based on visual proximity for accurate observation and, all things being equal, a random choice.

Teachers were told that the purpose of the observations was not to evaluate them individually, but to discover school-wide patterns. Although teachers understood their classes might be observed, they did not know if or when the observation would take place until the observer arrived at the classroom. Because of fluctuations in class schedules and student availability schedule changes were sometimes made on the spot so that sometimes even the observer was often unaware of which class would be observed next.

Classroom observations were conducted over a two week during May in 2002 and 2005. An attempt was made to observe a student with and without an IEP in each class, one after another. Which classification of student was observed first was regularly changed. Observers positioned themselves unobtrusively within the classroom, and the students and teacher(s) were not aware of who was being observed. All students in each classroom who were eligible for observation were discretely identified on the classroom seating chart by the observer. The length of the observations was calibrated to the length of the class period, typically 20 minutes for each student.

References

- Carta, J. J., Greenwood, C. R., Schulte, D., Arreaga-Mayer, C., & Terry, B. (1988). Code for instructional structure and student academic response: Mainstream version (MS-CISSAR). Kansas City, KS: Juniper Gardens Children's Project, Bureau of Child Research, University of Kansas.
- Greenwood, C. R. (1991). Longitudinal analysis of time, engagement, and achievement in at-risk versus nonrisk students. *Exceptional Children*, 57, 521-535.
- Greenwood, C. R., Carta, J. J., Kamps, D., & Arreaga-Mayer, C. (1990). Ecobehavioral analysis of classroom instruction. In S. R. Schroeder (Ed.), *Ecobehavioral analysis and developmental disabilities: The twenty-first century*. New York: Springer-Verlag.*
- Greenwood, C.R., Carta, J.J., Kamps, D., Delquadri, J. (1997). *EcoBehavioral Assessment System Software: Practitioner's Manual*. Kansas City, KS: Juniper Gardens Children, Schiefelbusch Institute for Life Span Studies, University of Kansas.
- Logan, K. R., Bakeman, R., & Keefe, E. B. (1997). Effects of instructional variables on engaged behavior of students with disabilities in general education classrooms. *Exceptional Children*, 63, 481-497.
- Logan, K. R., & Malone, D. M. (1998). Comparing instructional contexts of students with and without severe disabilities in general education classrooms. *Exceptional Children*, 64, 343-358.
- Thurlow, M., Ysseldyke, J., Graden, J., & Algozzine, B. (1983). What's "special" about special education resource room for learning disabled students? *Learning Disability Quarterly*, 6, 283-288.
- Ysseldyke, J. E., Thurlow, M. L., Christenson, S. L., & Weiss, J. (1987). Time allocated to instruction of mentally retarded, learning disabled, emotionally disturbed, and nonhandicapped elementary students. *Journal of Special Education*, 21, 43-55.

Observations Described

MS Integrated Classroom Observations

	2002 (7-8 grades)		2005 (7-8 grades)	
	Total	Observed	Total	Observed
Students with IEPs	66	17(26%)	43	25(58%)
Students without IEPs	754	14(2%)	858	26(3%)
Classroom Teachers	55	17(30%)	54	27(50%)

MS EBASS Classes

	2002(7-8 grades)	2005 (7-8 grades)
Totals	21	27
Math	3	3
English	6	5
Science	4	6
Social Studies	5	6
Other	3	7

*Other includes Family and Consumer Sciences, World Languages, Art, Business, etc.

Results

The results are reported in terms of means, which in this case is the mean of the combined percents for all items observed within each student group. *Consider the mean as a percent that represents the frequency that an item was observed in relation to the other items within its category (i.e., Task, Physical Arrangement, etc.)* Each category is independent of the other the other categories, and subsequently the items within a category will equal 100%.

Classroom Ecology

Classroom Ecology vTask	Students: No IEPs				Students: With IEPs			
	2002		2005		2002		2005	
	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
Other Media	18*	28	40	36	27*	35	48	32
Listen/Lecture	21	25	25	22	22	25	21	17
Readers	11	20	9	20	11	23	12	23
Worksheet	16*	26	7	16	14*	22	4	11
No Task	11*	20	3	5	9*	9	2	4
Paper	11	18	9	17	6	12	5	8
Fetch/Put Away	3	4	5	6	3	5	5	7
Teacher/Student Discussion	4	12	1	6	2	7	2	5
Workbook	4	17	0	0	2	8	0	1
Missing	1	3	2	3	3	6	2	3

* = statistically significant

<i>Classroom Ecology</i>	Students: No IEPs				Students: With IEPs			
	2002		2005		2002		2005	
	<i>Mean</i>	<i>Standard Deviation</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Mean</i>	<i>Standard Deviation</i>
vPhysical Arrangement								
Entire Group	98	4	98	4	93*	10	98	3
Divided Group	0	0	0	0	1	5	0	1
Individual	0	0	0	0	2	7	0	0
Missing	2	4	2	4	4	6	2	3

<i>Classroom Ecology</i>	Students: No IEPs				Students: With IEPs			
	2002		2005		2002		2005	
	<i>Mean</i>	<i>Standard Deviation</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Mean</i>	<i>Standard Deviation</i>
vInstructional Grouping								
Whole Class	91	23	97	4	88*	20	98	3
Small Group	7	23	0	0	5	19	0	0
No Instruction	0	1	0	0	0	1	0	0
Independent Instruction	0	0	0	0	0	0	0	0
1-1 Instruction	0	0	0	0	1	6	0	0
Missing	2	4	3	4	5	7	2	3

* = statistically significant

Teacher Behavior

<i>Teacher Behavior</i>	Students: No IEPs				Students: With IEPs			
	2002		2005		2002		2005	
	<i>Mean</i>	<i>Standard Deviation</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Mean</i>	<i>Standard Deviation</i>
vGeneral Teacher Behavior								
Attention	30*	29	15	15	29*	22	17	17
Talk Academic	19	19	25	21	18	21	22	16
No Response	18	22	15	19	16	19	18	24
Talk Management	14	10	23	18	17	13	17	10
Read Aloud	7	22	1	4	4	15	4	10
Question Academic	4	9	11	16	5*	8	14	17
Nonverbal Prompt	2	3	1	2	4*	7	2	5
Command Management	1*	2	3	3	2*	3	5	5
Question Management	1	2	1	3	1	4	0	1
Talk Non-Academic	1	3	3	11	1	4	0	1
Talk Discipline	0	2	0	0	0	1	0	0
Command Discipline	0	1	0	0	0	0	0	0
Question Discipline	0	1	0	0	0	0	0	0
Singing	0	1	0	0	0	1	0	0
Command Academic	0	0	1	3	0	0	0	2
Missing	3	4	2	3	3	5	1	3

* = statistically significant

<i>Teacher Behavior</i>	Students: No IEPs				Students: With IEPs			
	2002		2005		2002		2005	
	<i>Mean</i>	<i>Standard Deviation</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Mean</i>	<i>Standard Deviation</i>
vTeacher Approval								
Neither	95	5	95	5	95	6	96	6
Approval	1	4	2	5	1	3	2	3
Disapproval	0	2	1	2	1	2	1	3
Missing	3	4	2	3	3	6	2	3

<i>Teacher Behavior</i>	Students: No IEPs				Students: With IEPs			
	2002		2005		2002		2005	
	<i>Mean</i>	<i>Standard Deviation</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Mean</i>	<i>Standard Deviation</i>
vTeacher Focus								
Target Student and Others	40*	31	56	31	48	33	56	29
Other Than Target Student	36	27	32	33	37	28	30	27
No One	18*	22	9	13	14	16	11	19
Target Student	2	4	1	2	3*	5	1	2
Missing	4	4	2	3	3	6	2	4

* = statistically significant

Student Behavior

<i>Student Behavior</i>	Students: No IEPs				Students: With IEPs			
	2002		2005		2002		2005	
	<i>Mean</i>	<i>Standard Deviation</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Mean</i>	<i>Standard Deviation</i>
vAcademic Responses								
No Academic Response	52	33	55	23	58	27	58	22
Writing	16	17	17	15	15	16	16	17
Read Silently	12	22	12	13	17	22	14	20
Task Participation	14	30	14	24	4	13	8	17
Talk Academic	4	9	2	3	2	3	2	4
Read Aloud	0	1	0	1	1	2	0	1
Missing	3	3	1	2	3	12	1	2

<i>Student Behavior</i>	Students: No IEPs				Students: With IEPs			
	2002		2005		2002		2005	
	<i>Mean</i>	<i>Standard Deviation</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Mean</i>	<i>Standard Deviation</i>
vTask Mgt. Response								
No Task Management	64	26	53	28	66	22	55	24
Attention	26	28	35	29	23	22	33	25
Manipulating Materials	5	8	7	9	4	7	5	9
Moving	1	3	1	2	2	4	2	4
Talk Management	0	1	0	1	1*	3	0	0
Raising Hand	0	0	1	3	0	0	0	1
Playing or Interacting Appropriately	0	0	0	0	0	1	0	0
Missing	3	3	3	10	4	13	2	3

* = statistically significant

<i>Student Behavior</i>	Students: No IEPs				Students: With IEPs			
	2002		2005		2002		2005	
	<i>Mean</i>	<i>Standard Deviation</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Mean</i>	<i>Standard Deviation</i>
vCompeting Responses								
No Inappropriate Behavior	95	8	96	10	93	13	95	6
Talk Inappropriate	1	6	0	0	1	3	0	1
Looking Around	1	3	0	1	2	4	2	4
Self-Stimulation	0	0	0	0	0	2	1	3
Self-Abuse	0	0	0	1	0	1	0	1
Non-Compliance	0	0	0	0	0	0	0	0
Aggression	0	0	0	0	0	0	0	0
Disrupt	0	0	0	0	0	0	0	0
Missing	3	3	3	10	4	13	2	3

* = statistically significant