

# High School SSESS Study

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## Classroom Observations

### Evaluation Findings 3

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## **Purpose**

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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**

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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 5<sup>th</sup> 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.

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## Observations Described

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### High School Classroom Observations

	2002 (10-12 grades)		2005 (10-12 grades)	
	Total	Observed	Total	Observed
Students with IEPs	53	23 (43%)	84	27(32%)
Students without IEPs	1,176	27 (2%)	1,153	24(2%)
Classroom Teachers	59	26 (44%)	90	31(34%)

### High School EBASS Classes

	2002 (10-12 grades)	2005 (10-12 grades)
Math	3	6
Social Studies	5	7
Science	3	6
English	6	6
Other*	9	6

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

## EBASS Categories: A Reference To Categories Needing Clarification

This reference describes some EBASS categories, subcategories, and variables that may not be readily understood by their titles. EBASS is divided into three basic categories: 1. Classroom Ecology, 2. Teacher Behaviors, and 3. Student Behaviors. Within each of these basic categories are subcategories that include a variety of variables. Selected descriptions are provided below.

For more information on these and other variables, see the "Practitioner's Manual" for the EBASS software from the Juniper Gardens Children's Project.

### 1. Classroom Ecology

#### Task

"Task is the category used to describe the actual curriculum materials and/or media materials the target is using in order to make academic response during instruction. Academic tasks are materials like readers, workbooks, programmed reading books, primers, paper and pencil, tape recorded lessons, computers films, video tapes, and reference books, etc." (Greenwood et al., 1997)

- ❑ "Other Media is defined as a task that involves a material other than readers, workbooks, worksheets, or paper and pencil." (Greenwood et al., 1997) Examples: When the student is viewing a video, overhead projector presentation, or writing on the blackboard.

#### Physical Arrangement

"The physical arrangement is determined by the actual location of students in the classroom in relationship to each other." (Greenwood et al., 1997)

- ❑ "Entire Group is defined when the target subject is located within the same general seating arrangement as all other students in the classroom." (Greenwood et al., 1997)
- ❑ "Divided Group is defined as any other arrangement that is not otherwise EG [Entire Group] or I [Individual]." (Greenwood et al., 1997) Examples of Divided Group: Groups at the side or back of the room.
- ❑ "Individual is defined when the target student is situated away from all other students in the class." (Greenwood et al., 1997) Examples: Target student is at a study carrel, or at a desk that is separated away from the rest of the class.

#### Instructional Grouping

"Instructional grouping is the method of instruction as defined by a combination of teacher interaction, activity, and the number of students involved in the same group as the target student." (Greenwood et al., 1997)

- ❑ "No Instruction is coded if there is no task, and the student is receiving no direct questions, commands, or talk from the teacher." (Greenwood et al., 1997)

## 2. Teacher Events

### General Teacher Behavior

"Teacher behavior is the category that describes the behavior of the teacher..." (Greenwood et al., 1997)

- ❑ "Attention is defined by those instances where the teacher is simply looking at a student or engaging in related behaviors that indicate that he/she is paying attention to the student(s)." (Greenwood et al., 1997)

### Teacher Approval

Teacher expressions of praise, appreciation, satisfaction, dislike, dismay, dissatisfaction, or no expression of approval or disapproval.

### Teacher Focus

"The Teacher Focus category reveals who was the recipient of the teacher behavior..." (Greenwood et al., 1997)

### Definitions of Some Subcategory Descriptors

**Talk:** Informative statements; examples, discussion, lecture.

**Question:** Question statements. Examples: "And the answer...?" "Does everyone have their book open to...?" "James, will you please sit quietly?"

**Command:** Command statements. Examples: "Read it to me." "Tell me the number of people that are..." "Bring your chairs to the front of the class." "Jim, go to the principal's office."

**Academic:** Academic related statements.

**Management:** Classroom management related statements (not including discipline); generally precedes academic instruction.

**Discipline:** Statements related to student "social interactions, conduct, or school/class rules." (Greenwood et al., 1997)

### 3. Student Behaviors

#### Academic Responses

"*Academic responses* are student behaviors made directly in response to an academic task, command, or prompts, and they reflect active academic engagement. Academic responses can be written, oral, visual (silent reading), or motor." (Greenwood et al., 1997)

- ❑ "Task Participation is defined by those instances where the student is observed manipulating elements of an academic task used individually or shared with peers. Task Participation is an active academic response... Task Participation does not include writing responses." (Greenwood et al., 1997) Examples: Using a computer, calculator, or an instrument, or dancing, or playing an academic game, etc.

#### Task Management Responses

"*Task management behaviors* are student behaviors that "enable" the student to engage in academic tasks. Behaviors like looking at the teacher while giving instructions, seeking materials, such as a pencil or paper required for a task, are examples of student task management behaviors. Notice that these responses are not active responses to academic tasks but rather enable the child to sometime make an academic response." (Greenwood et al., 1997)

- ❑ "Manipulating Materials is defined by those instances where the student is looking for, using, or handling curriculum materials." (Greenwood et al., 1997) Examples: Looking for materials in school bag, using answer sheets, reference materials, paging through a book, reaching for a pencil, etc.

#### Competing Responses

"*Competing classroom behaviors* are those which are unacceptable because they are against social conventions, classroom rules, and teacher direction. Examples: behaviors like hitting, yelling, making loud noises, leaving the room, breaking class rules, among others." (Greenwood et al., 1997)

- ❑ "Disrupt is defined by those instances in which the student is observed producing noise levels or behaviors loud enough to attract the attention of the other students or the teacher... accidental or intentional..." (Greenwood et al., 1997)

## 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	40	37	37	38	39	39	34	36
Listen/Lecture	28	34	18	23	28	28	18	26
Readers	11	30	12	31	5	21	5	20
Worksheet	9	22	15	27	11	22	14	30
No Task	6	12	5	14	8	13	7	19
Paper	3	10	2	5	4	7	10	24
Fetch/Put Away	2*	4	6	7	2	4	3	4
Teacher/Student Discussion	0	2	0	1	2	6	1	3
Workbook	0	0	4	20	0	0	5	19
Missing	1	3	2	4	1	2	3	3

\* = statistically significant

<i>Classroom Ecology</i>	<b>Students: No IEPs</b>				<b>Students: With IEPs</b>			
	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>
<b>vPhysical Arrangement</b>								
Entire Group	<b>99</b>	4	93	21	<b>98</b>	3	91	17
Divided Group	<b>0</b>	0	5	21	<b>0</b>	0	5	17
Individual	<b>0</b>	0	0	0	<b>0</b>	0	0	0
Missing	<b>2</b>	4	3	5	<b>2</b>	3	4	5

<i>Classroom Ecology</i>	<b>Students: No IEPs</b>				<b>Students: With IEPs</b>			
	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>
<b>vInstructional Grouping</b>								
Whole Class	<b>98*</b>	4	86	28	<b>97</b>	9	86	25
Small Group	<b>0</b>	0	11	28	<b>0</b>	0	5	17
Independent Instruction	<b>0</b>	0	0	0	<b>0</b>	0	0	0
No Instruction	<b>0</b>	0	0	0	<b>0</b>	0	0	0
1-1 Instruction	<b>0</b>	0	1	2	<b>1</b>	6	0	0
Missing	<b>2</b>	4	3	5	<b>2</b>	4	9	19

\* = statistically significant

## Teacher Behavior

<i>Teacher Behavior</i>	<b>Students: No IEPs</b>				<b>Students: With IEPs</b>			
	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>
<b>vGeneral Teacher Behavior</b>								
Talk Academic	<b>33</b>	30	32	23	<b>31</b>	27	31	28
No Response	<b>28*</b>	32	12	20	<b>25</b>	30	12	25
Attention	<b>17</b>	17	21	17	<b>18</b>	19	21	28
Talk Management	<b>9</b>	13	16	13	<b>11</b>	11	15	14
Question Academic	<b>5</b>	6	6	8	<b>6</b>	10	7	9
Nonverbal Prompt	<b>4</b>	7	2	4	<b>2</b>	4	5	19
Question Management	<b>1</b>	2	2	5	<b>1</b>	3	1	3
Talk Non-Academic	<b>1</b>	2	2	5	<b>1</b>	3	2	5
Command Discipline	<b>1</b>	2	0	0	<b>0</b>	0	0	0
Command Management	<b>1</b>	2	3	6	<b>2</b>	3	1	2
Singing	<b>0</b>	1	0	0	<b>1</b>	2	0	0
Read Aloud	<b>0</b>	0	0	1	<b>2</b>	6	0	1
Command Academic	<b>0</b>	0	0	1	<b>0</b>	0	0	0
Question Discipline	<b>0</b>	0	0	0	<b>0</b>	0	0	0
Talk Discipline	<b>0</b>	0	0	0	<b>0</b>	0	0	1
Missing	<b>2</b>	3	4	4	<b>1</b>	2	4	4

\* = statistically significant

<i>Teacher Behavior</i>	<b>Students: No IEPs</b>				<b>Students: With IEPs</b>			
	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>
<b>vTeacher Approval</b>								
Neither	<b>97</b>	5	96	4	<b>97</b>	4	95	4
Disapproval	<b>1</b>	2	0	1	<b>2*</b>	4	0	1
Approval	<b>0</b>	2	0	0	<b>0</b>	0	0	1
Missing	<b>2</b>	3	4	4	<b>1</b>	2	4	4

<i>Teacher Behavior</i>	<b>Students: No IEPs</b>				<b>Students: With IEPs</b>			
	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>
<b>vTeacher Focus</b>								
Target Student and Others	<b>41</b>	34	45	31	<b>46</b>	35	50	37
Other Than Target Student	<b>28</b>	25	39	30	<b>26</b>	26	32	33
No One	<b>27*</b>	32	12	19	<b>24*</b>	29	9	17
Target Student	<b>1</b>	2	1	3	<b>1</b>	4	2	4
Missing	<b>3</b>	4	4	4	<b>2</b>	3	8	19

\* = statistically significant

## Student Behavior

<i>Student Behavior</i>	<b>Students: No IEPs</b>				<b>Students: With IEPs</b>			
	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>
<b>vAcademic Responses</b>								
No Academic Response	<b>67</b>	30	56	29	<b>31</b>	27	54	38
Writing	<b>12</b>	14	16	17	<b>25</b>	30	17	22
Read Silently	<b>11</b>	23	11	12	<b>18</b>	19	9	19
Task Participation	<b>8</b>	17	12	21	<b>11</b>	11	11	24
Talk Academic	<b>2</b>	5	3	6	<b>6</b>	10	2	4
Read Aloud	<b>0</b>	0	0	0	<b>2</b>	4	0	2
Missing	<b>1</b>	2	3	3	<b>1</b>	3	2	4

<i>Student Behavior</i>	<b>Students: No IEPs</b>				<b>Students: With IEPs</b>			
	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>
<b>vTask Mgt. Response</b>								
No Task Management	<b>48</b>	34	43	35	<b>61</b>	31	49	36
Attention	<b>46</b>	35	44	37	<b>32</b>	32	39	35
Manipulating Materials	<b>4</b>	5	6	7	<b>3</b>	6	3	6
Moving	<b>1</b>	2	3	6	<b>1</b>	3	1	5
Talk Management	<b>0</b>	2	1	3	<b>2</b>	6	0	2
Raising Hand	<b>0</b>	0	0	1	<b>0</b>	0	1	4
Playing or Interacting Approp.	<b>0</b>	0	0	1	<b>0</b>	0	0	2
Missing	<b>2</b>	3	3	3	<b>1</b>	2	2	4

<i>Student Behavior</i>	<b>Students: No IEPs</b>				<b>Students: With IEPs</b>			
	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>
<b>vCompeting Responses</b>								
No Inappropriate Behavior	<b>97</b>	5	96	5	<b>95</b>	7	85	29
Looking Around	<b>1</b>	4	1	3	<b>2</b>	3	2	8
Talk Inappropriate	<b>0</b>	1	1	4	<b>1</b>	5	-1	3
Self-Stimulation	<b>0</b>	0	0	0	<b>0</b>	0	1	7
Self-Abuse	<b>0</b>	0	0	0	<b>0</b>	0	-1	3
Non-Compliance	<b>0</b>	0	0	0	<b>0</b>	0	-1	3
Aggression	<b>0</b>	0	0	0	<b>0</b>	1	-1	3
Disrupt	<b>0</b>	0	0	0	<b>0</b>	1	-1	3
Missing	<b>2</b>	3	3	3	<b>1</b>	2	2	5